Foreword

This is the Third Human Development Report of Madhya Pradesh. While introducing the two earlier reports we have mentioned the reasons that prompted us to prepare Human Development Reports. The first Report in 1995 was, like we mentioned, a report on our failures, on what remained to be done. In that sense it benchmarked our status on human development indicators and shared concern and urgency. Looking back, the Report served its purpose. It served to mobilise public opinion towards the new agenda we had adopted of according the highest priority to human development goals, working on some of them as Missions and working on them through a model of collective action made possible by Panchayat Raj.

Our second Report in 1998 acknowledged that governments do not have the luxury of merely documenting status in human development but instead are voted to office to make change in the human development situation. It could not be a passive record of statistics and comparative profiling. Therefore we reported on our efforts or the road covered and focussed as much on agency as on tasks.

Both Reports had one limitation in that often we were forced to rely on statistics of Census 1991, which by the time of the second Report of 1998 was indeed outdated. This Third Report has the advantage that at least some of the results of Census 2001 have been made public. This in fact prompted us to postpone our Report to 2002 instead of 2001 which ought to have been our deadline to keep to our three-year frequency.

It must be stated here that while the preparation of Human Development Report was certainly inspired by the pioneering work of UNDP under the leadership of late Mahbub-ul-Haq, our Reports have been home grown efforts, undertaken entirely on our own volition and with our own funds, people and limitations. We have felt that this ownership is important so that the Reports lead to action.

I must acknowledge here Dr. Manmohan Singh who encouraged us to continue on this path when we broke new ground with the first sub-national Human Development Report which he released in 1995. Our first Report led to UNDP organising a national seminar at Bhopal coordinated by Professor Richard Jolly to persuade other state governments to prepare similar reports. We take some pride in the fact that the idea did indeed spread and several state governments have since produced similar state-level Human Development Reports. The Government of India has also produced a national HDR in 2001.

Professor Amartya Sen whose writing has been an inspiration for our work released our Second Human Development Report. We had made a commitment to him on that occasion that by the time our third Report is due, we would have universalised access to elementary education. We are happy to report that we universalised access to primary education in 1998 and have almost universalised access to elementary education. To ensure quality, we have become the first state in India to enact a People's Education Act which seeks to create a legal safeguard for quality. Quality for elementary education would no more remain an issue that agitates only the academic but a user issue that

involves learners, parents, local bodies, elected representatives at several levels, state legislature, teachers and academic institutions. We have legally ensured the preparation and publication of Public Education Reports and their submission to the State legislature each year.

We are aware that in the area of health we need to strengthen our efforts. We feel that here too the answer too lies in decentralisation to the district and below district levels for management. We must also build health action from below by mobilising the local community. Management of health institutions must be brought under community control. We have made some significant beginnings in the area of decentralisation through our Mission for Community Health and for management of hospitals through *Rogi Kalyan Samitis*.

Livelihood security for the poor is our most important challenge. We have been trying to address this issue through a variety of programmes for creating entitlements and enhancing opportunities. We feel that resources under programmes of the Government of India especially in the areas of anti-poverty programmes and food subsidies must be better targeted to vulnerable areas and vulnerable sections of our people. Macro economic policy must focus on employment creation as a clear objective in itself.

This Third Human Development Report registers the progress we have made on the human development agenda. Here again we report on action and how we have sought to use the power of democracy for development. We also present some of the constraints faced by the states like Madhya Pradesh in realising a human development vision in the current macro-economic context. Human development goals cannot be pursued in isolation of these larger factors which sub-national governments are today unable to influence.

In this Report we also present the need to develop indicators of measurement that are relevant to our context. To the professionals guiding the development of HDI and related indices, we would like to suggest that disparities in India have not merely a class or gender dimension but also a caste/ tribe dimension. It is time we develop in India, like the UNDP did the Gender Development Index in 1995, a Scheduled Tribe- Scheduled Caste Development Index to capture the inequality in opportunities to human development faced by the people belonging to the scheduled castes and scheduled tribes in India.

A Human Development Report produced in India cannot be indifferent to the stratification on the basis of caste and the glass ceilings that exist even with our commitment to equality before law and programmes for affirmative action. Similarly the growing alienation of tribal communities on account of the statisation of their resource base of forests and minerals has a negative impact on reducing human poverty of these groups. This can be resolved through imaginative policies at the national level that combine the objectives of natural resources conservation and development. Policies that build on such arguments can be initiated or reinforced through the creation of a Scheduled Tribe — Scheduled Caste Development Index. This will be the effort in our next Report.

Digvijay Singh
Chief Minister, Madhya Pradesh
1 November 2002

Using the Power of Democracy for Development: The Madhya Pradesh Effort

This chapter seeks to give an overview on the effort in Madhya Pradesh towards addressing goals of human development in the period from 1994 when the state went in for large-scale political decentralisation. It presents examples where the spaces created through decentralisation were utilised to advance action on human development goals. It explores the possibility of putting the architecture of decentralisation to work on human development goals to both consolidate grassroots democracy and move towards a rights-based framework for these goals. It underscores institutional reform in governance as the key enabling variable for accelerating achievement of goals. It sees this effort as having to operate within two major constraints. One constraint results from the macro-economic situation of the country which a sub-national entity like a provincial government is unable to influence. The other constraint relates to the continuing centralising tendency in planning for human development at the national level which state governments are continually forced to challenge if they are serious about achieving goals of human development quickly. Uneven development has always characterised the Indian situation. After the results of Census 2001 it is more than evident that problems of human development in India have increasingly become problems of selected Indian states, have characteristics that are not universally shared across Indian states and need responses that account for the specificity of those states. More than ever human development in India has become less of an "Indian" issue and more the issue of selected Indian states further vindicating the need to capture the human development situation of those relatively backward states through sub-national human development reports and document responses.

Putting political democracy back into poverty reduction and human development

Madhya Pradesh has been attempting to address the backlog of its challenges in human development through people seeing people as a strategic resource for action. The enabling framework of political democracy was itself seen as the biggest opportunity for doing this. Political decentralisation through Panchayat Raj deepened democracy in the state. This was complemented by a widening of democracy through plural spaces for community action groups to work on specific agendas. The coming into being of these institutions was discussed in the Second Madhya Pradesh Human Development Report in 1998 which also discussed how the state was able to convert selected goals into Missions to be implemented through this new institutional arrangement.

A revitalised Panchayat and Urban local body system was brought into place in 1994 in Madhya Pradesh after the 73rd/74th Constitution Amendment. A second round of general elections was completed in 1999. The Panchayat Raj system was revamped by legally empowering the Gram Sabha through the Panchayat Raj and Gram Swaraj Act. Through Gram Swaraj opportunities for direct action by the community has increased through the Committees under it. Political supremacy of the Gram Sabha was reinforced through creating the provision of the Right to Recall in rural and urban local bodies, for the first time in India. Elections have been held for not only rural and urban local bodies, but also Cooperative Institutions, Agricultural Marketing Societies, Forest Produce Federations, Water Users Associations etc. In addition there are elected people's representatives in bodies that that guide Watershed Management, Joint Forest Management, Management of Public Hospitals through Rogi Kalyan Samitis, Management of Colleges through College Management Committees etc. *(See Box Reducing the Democracy Deficit)*

A few examples —two from education, three from natural resources management and one from public health are being cited merely to illustrate potential of accelerating on human development goals through a framework of collective action enabled by political democracy.

- Madhya Pradesh was among the educationally backward states in India in the middle-nineties. The Government devised an Education Guarantee Scheme to provide a primary school to every community that demanded such a facility and had at least twenty-five children of the school-going age. If they did not have a school within one

Reducing the Democracy Deficit

In the last eight years multiple institutional spaces have been created in Madhya Pradesh for channelising action by the community. Elected representatives of Panchayat Raj, Gram Swaraj, Mandi (agricultural marketing societies) Samitis, and Cooperatives together with other user organisations have cumulatively contributed to enlarging democratic action. There has been a view that such plural organisations dissipate the core institution of panchayats but the experience in Madhya Pradesh has been that panchayats also work better in a contested environment and these organisations cumulatively create a democratic surplus.

- 3,44,424 elected representative of Panchayats, of whom 1,16,410 are women, have taken charge of their villages. The current set of representatives were elected in 1999 for a five-year term.
- Gram Swaraj has vested powers with gram sabha which acts through its committees consisting of elected representatives who were elected in 2001.
- 1,48,052 elected cooperative members work through 13,267 primary societies and their apex institutions. The latest round of elections were in 2000-2001.
- 2280 elected representatives manage agricultural marketing societies and the recent round of elections were held in 2000.
- 50,000 members of watershed samitis, 15 lakh members of Tendupatta plucker societies and more than 48 lakh members of joint forest management committees have taken charge of managing their natural resources.
- 10,280 members of water user associations managing and allocating water in irrigation projects.
- 31,000 Gurujis teaching in community schools under Education Guarantee Scheme and 2,17,000 Guruji Volunteering to teach adult non-literates in Padhna Badhna Andoloan.
- Rogi Kalyan Samitis manage 715 public hospitals of the states after mobilising Rs 500 million as community contribution.
- In all 51,086 villages a trained Dai and a Jan Swasthya Rakshak as community health activists by December 2002.

kilometre they could make a demand and the government guaranteed to meet that demand within 90 days. The community could also identify a local qualified resident to be the teacher. The scheme worked through a tripartite partnership between local community, local government and the state government with specific roles. The community raised the demand, identified the teacher and provided the space to run the school. The local body or panchayat supervised the school. The state government supported the local community through a grant to pay the teacher and ensured all academic inputs and quality of teaching and learning. The scheme which started on 1st January 1997 was able to provide a school to every habitation in the state by August 1998. 26,000 EGS schools came up in less than 20 months and Madhya Pradesh universalised access to primary education. Over a million children are enrolled in these community schools of which nearly fifty percent are girl children and ninety percent belong to scheduled castes, scheduled tribes and other backward castes. The Scheme went on to four other states and was adopted as a national model in 2000.

- A similar model was tried in adult literacy in the year 2000. People who were non-literate could come together as a Padhna Badhna Samiti and engage any literate person to be their teacher in a year-long campaign. Government provided the teaching-learning material. The Government also set in place an evaluation system. Based on the number of non-literate people who cleared the examination, the voluntary teacher would get a Gurudakshina as an honorarium at the rate of Rs 100 per person made literate. By providing an incentive-spine to the mass literacy programme, over 2,17,000 Padhna Samitis came up in Madhya Pradesh and within one year these voluntary teachers, made 3 million people literate. This was reflected in the literacy rate in the Census of 2001. The literacy rate of Madhya Pradesh went up by an unprecedented 20% to catch up with the national average. Its male literacy at 76.6% is today above many states including Andhra Pradesh and Karnataka. Its female literacy rate went up by over 20% in the decade of the nineties and exceeded the cumulative growth of the three-preceding decades. These Padhna Badhna Samitis are getting repositioned as Self-Help Groups for economic activities and the Government another campaign for female literacy – a Mahila Padhna Badhna Andolan – has commenced. The volunteer teachers of the campaign are coming together as a network of a Padhna Badhna Sangh, with a local group for social action in each of the 51,086 villages of Madhya Pradesh and will manage a rural library in each village.
- In the area of natural resources management, by organising people through the Watershed Management Mission and a Joint Forest Management Programme, Madhya Pradesh has been able to arrest the degradation of land and provide incomes to the poor. In the Watershed Management Programme people come together as Watershed Management Committees to work on an agenda of creating community-level water security and improvement of land resources. The task was simple: to impound rain water which runs off into a series of water harvesting structures. The problem in our rural areas has been one of unemployment and inadequately developed land and

water resources. What the programme does is to bring them together and invest the surplus labour energy in a task of natural resources upgrading which in turn provides steady employment. The Watershed Management Mission which works in 7600 villages of the state on to improve 35 lakh hectares of land has evolved into a movement for water conservation across the state through a Pani Roko Abhiyan. This Pani Roko Abhiyan for community-led water harvesting has resulted in citizen action in private farms and community lands in an unprecedented manner. Between January 2001 when it started and now, over a million water harvesting structures ranging from tanks and farm ponds to simple Do-It-Yourself methods of channelising rain water to recharge dugwells showing the scale that is possible. Similarly through Joint Forest management, the management of forest is done through People's Committees. After Madhya Pradesh transited to such a model, the forest cover in the state as shown by satellite maps of 1999 increased by 635 square kilometres. 10,280 elected representatives of Water Users Associations manage irrigation systems in the state over 1.5 million members are involved through NTFP societies for management of Non Timber Forest Produce who collect the produce and retain the entire value from the operation.

- In the area of management of public hospitals Madhya Pradesh has gone in for Rogi Kalyan Samitis for their management. They are permitted to levy a modest user fee that can be retained at the hospital level to improve delivery of services. Today over 770 public hospitals are managed by such committees who have a saving of Rs 600 million with which they are improving services. Local management and autonomy is leading to improved public services provisioning. Madhya Pradesh is currently engaged in decentralising the management of its health systems to district and local levels and implement a model of community health action. This has several components starting from basics like training two community health activists in each village as a Jan Swastya Rakshak (a barefoot doctor) and a trained Traditional birth attendant to strengthening rural health care and first-contact hospitals. The effort is to address the determinants of health like safe water supply, sanitation, nutrition and health education along with health action in inter-sectoral institutional arrangements like the Village Health Committees, Panchayats and District Governments brought into existence through political decentralisation. The decentralised framework if effectively utilised offers great opportunity for improving rural health care.

The simple point made by these examples is that when political democracy adopts decentralisation as its strategic architecture, solutions can be devised for seemingly formidable goals in unusual ways. Many of these challenges, if viewed aggregately, have a crisis-like dimension. Decentralisation helps break them into small, manageable units and gets them done. For a large state like Madhya Pradesh political decentralisation becomes both a political imperative and sound managerial strategy. The challenge for political leadership has been one of sharing leadership. Through Panchayat Raj, Education Guarantee Scheme, Padhna Badhna Andolan, Watershed Management Mission, Joint Forest Management, Rogi Kayan Samiti and similar such initiatives, an effort has been made to create a platform for several leaders to emerge to address these tasks in their local contexts.

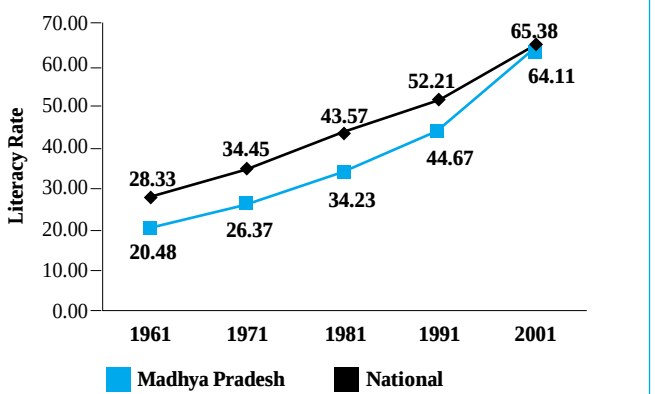
Political Decentralisation and Mass Education

When Madhya Pradesh set about addressing its agenda of political decentralisation through Panchayat Raj and human development through the Rajiv Gandhi Missions in 1994 it was made clear that it sees mass education as the most important objective. Education is both an end in itself to realise the full potential of a human being and has instrumental value in making political democracy full-blooded. Eight years into that effort, by the time we measure its performance, Madhya Pradesh is seen to have moved closer to this goal. It has caught up with the national average in literacy thereby closing the historical gap. The next chapter of this Report discusses the growth in basic education and literacy in the state in detail.

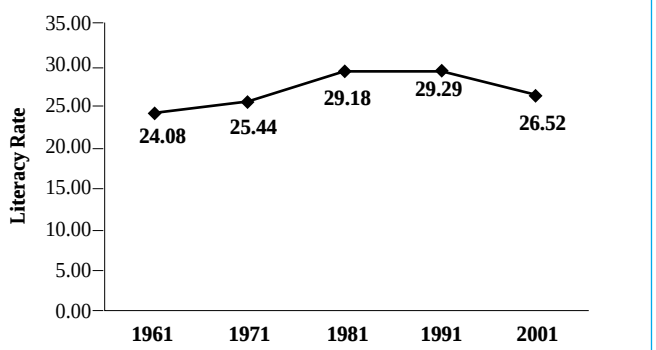
A comparison of states which were similarly placed in the beginning of the decade would serve to illustrate the effort in MP and the so-called Bimaru states (Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh) would be a good indication of peer states. While all these states registered increase in literacy between the 1991 and 2001 Census Madhya Pradesh today among these states has the highest literacy rate at 64.1 while Rajasthan has 61%, Uttar Pradesh 57.4% and Bihar 47.5%. Given the fact that Chhattisgarh was carved out of Madhya Pradesh only in November 2000, and the work of the decade is being measured when Chhattisgarh was also part of Madhya Pradesh, the literacy rate further goes up marginally. Among the top ten districts of the country where the percentage of illiteracy reduced most in the decade, eight are from the erstwhile Madhya Pradesh (four of them are now in Chhattisgarh). Efforts at mass literacy complemented the effort at providing universal access to elementary education, goals that Madhya Pradesh has been pursuing in the nineties on a Mission-mode. Observers of the Indian economy who have drawn attention to increase in inequality between Indian states in the nineties (mainly between southern and western states on the one hand and the northern and eastern states on the other the latter already burdened with historical inequalities: Deaton and Dreze) cite Madhya Pradesh as a state where public action in the area of elementary education and literacy has resulted in social achievements.

The two graphs shown here show the closing gap between literacy rates of Madhya Pradesh and India over the last many decades. The pace at which this gap has closed has been the

Closing the Literacy Gap: Madhya Pradesh and India



Gap between Male and Female Literacy in Madhya Pradesh



achievements of the last decade only. The other graph exhibits the closing gap between male and female literacy. From 1961 to 1991, the gap between male and female literacy was continuously on the rise, but in the last decade for the first time, this gap reduced.

The increase in access to primary schooling in Madhya Pradesh leading to increase in enrolment is borne out by a comparison of the data of the two Lok Samark Abhiyan of 1996 and 2001. Lok Sampark Abhiyan or People's Data Base is an exercise carried out in Madhya Pradesh on a door-to-door basis through elected representatives in villages and teachers working as a team. This leads to the creation of a Village Education Register that becomes the unit for planning for education for all at the village level. It is seen that between 1996 and 2001, Gross Enrolment Ratio in the state went up from 76.5% to 96.2%. The Gross Enrolment Ratio of girls has increased from 70.7% to in 1996 to 94.3% in 2001. The Gross Enrolment Ratio of Scheduled Tribes has risen from 78% in 1996 to 91% in 2001. The percentage of out of school children reduced from 29.3% in 1996 to 11.2% in 2001. In other words while three out of ten children did not attend primary school in 1996 now it is only one out of ten. The gap in Gross Enrolment Ratio of boys and girls has also narrowed from 25% in 1992 to 11% in 1996 to 3.6% in 2001, a very positive sign.

In the area of health, Madhya Pradesh alone among the "Bimaru" states has shown a declining trend in population growth, much of which can be attributed to the growth in literacy and education given the fact that health indicators per se have not improved dramatically in inter-state comparison. While population growth rate increased in Uttar Pradesh and Bihar and remained static in Rajasthan, Madhya Pradesh for the first time registered a declining trend. There is increasing cross-country evidence that political decentralisation which empowers women to move out from the private domain to the public domain thereby exercising a greater control on their environment can have a positive impact on population reduction.

In human development, the one sector where the state still faces a considerable challenge is health. Most of the major indicators are way below the national averages and stand amongst the lowest in India. On the other hand, there has been a small but significant shift in the progress level in health, and this is seen if we compare the last seven to eight years (1993 to 1999) of MP with the decade preceding that (1980 to 1992) (see Table 1).

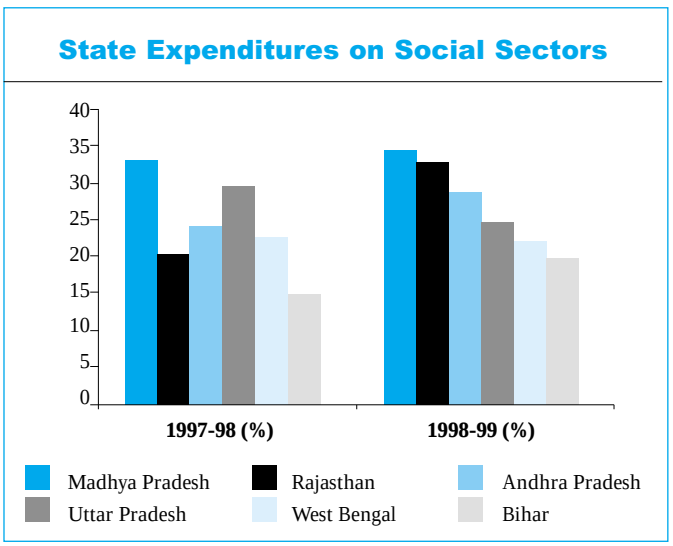
Increased allocation to the Social Sector

During this period, Madhya Pradesh has sought to steadily increase its expenditure in the social sector. The chart below shows the increase in the social sector spending by Madhya Pradesh.

Table 1: Changes in Birth Rate, Death rate and IMR in Madhya Pradesh, 1993 to 1999

	Birth Rate		Death Rate		Infant Mortality Rate	
	MP	India	MP	India	MP	India
Change % age between 1980 and 1992	-6.3%	-14.0%	-17.8%	-22.8%	-36.5%	-44.3%
Change % age between 1993 and 1999	-13.7%	-10.0%	-18.9%	-13.4%	-16.5%	-5.7%

Source: Calculations made on data from Various Volumes of SRS, Registrar General of India.



During the year 1994-1995, the plan expenditure on social services was 23.64 % of the total plan expenditure. The plan expenditure on social services steadily rose in the remaining period of the Eighth Plan and throughout the period of the Ninth Plan (1997-2002). It became 27.15 % in 95-96, 32.34 % in 96-97, 33.14% in 97-98, 35.30 % in 98-99, and 38.77% in 99-2000.

The Table 2 shows increase in provisioning of amenities in terms of institutions in basic education, technical education and basic health in Madhya Pradesh in the period 1994-2001.

Acceleration of growth in Madhya Pradesh

Madhya Pradesh has been among the economically backward states of India. However in the decade of the nineties, Madhya Pradesh reversed this position and became one of the faster growing states of India and has sustained a high growth rate if the year of acute drought is excluded. Among the states in the north, Rajasthan and Madhya Pradesh have been seen as faster growing states but while Rajasthan has had this high growth since eighties, it is in the nineties that MP has begun to register this high growth rate. Seven states showed acceleration of growth in the nineties as reported in the Mid-Term Appraisal of Ninth Fine Year Plan by the Planning Commission. To quote the Report "seven states showed an acceleration of growth in the 1990s. They are fairly well distributed regionally i.e, Gujarat (9.6%), Maharashtra (8.0%), West Bengal (6.9%), Tamil Nadu (6.2%), Madhya Pradesh (6.2%), Rajasthan (5.9%) and Kerala (5.8%)". Per Capita income has also grown over the period though at a slower rate on account of slow pace of population reduction. The per capita income of Madhya Pradesh, which was Rs 6577 in 93-94 has gone up to Rs 7088 in 96-97 and Rs 7947 by 1999-2000.

According to the National Human Development Report 2001, Headcount Ratio of rural poverty went down in Madhya Pradesh from 40.6 in 1993-1994 to 37.1 in 1999-2000. Headcount ratio of poverty in Urban areas during the same period went down from 48.4% to 38.4%. According to NHDR 2001 Madhya Pradesh, among the Bimaru states has the second highest HDI, (Rajasthan has the highest) at 0.328 while Uttar Pradesh is at 0.314 and Bihar at 0.308.

Moving towards a rights-based framework on human development goals

Madhya Pradesh became the first state in India to conceive a rights-based framework for basic education in India when it introduced the Education Guarantee Scheme in 1997. The understanding of rights in the Education Guarantee Scheme goes beyond seeing it as a civil right, a right of the citizen vis-à-vis the state or society but wraps within it the notion of social, economic and cultural rights. Education of the child is presented as a right that the state has to ensure working together with society and citizens. The debate between procedural rights and substantive rights is sought to be reconciled in a practical manner in the form of a state guarantee, which the state was able to ensure because the participation sought from society was forthcoming. Here again political decentralisation becomes the enabling framework.

In the area of basic education, the rights-based framework has been carried over into the area of ensuring quality for elementary education through the Madhya Pradesh Jan Shiksha Adhiniyam (Madhya Pradesh People's Education Act, 2002). As the first Act of its kind it charts new territory. The Act holds providers in the public schooling system accountable for quality and for this Parent-Teacher Associations have been given legal space. The Act stipulates quarterly submission of academic records of children at the school level at the Parent-Teacher Association meetings and annual Public Education Reports to District Planning Committees (District Government) and the state legislature, which will organise information based on legislative constituencies. It is expected

Table 2: Institutions in Madhya Pradesh, 1994 to 2001

Years	Primary Schools	Middle Schools	High Schools	Colleges	Health Centres
1993/94	52786	12745	4303	412	9900
2000-01	82219	21043	7943	675	10390

Source: Various Volumes of State Statistical Abstract, Directorate of Economics and Statistics, Government of Madhya Pradesh

Table 3: Rates of Growth of Gross State Domestic Product

States	1980-81 1990-91	1991-92 1997-98
Gujarat	5.08	9.57
Maharashtra	6.02	8.01
West Bengal	4.71	6.91
Rajasthan	6.60	6.54
Tamil Nadu	5.38	6.22
Madhya Pradesh	4.56	6.17
Kerala	3.57	5.83
Karnataka	5.29	5.29
Andhra Pradesh	5.65	5.03
Haryana	6.43	5.02
Punjab	5.32	4.71
Uttar Pradesh	4.95	3.58
Orissa	4.29	3.25
Bihar	4.66	2.69
All 14 States	5.24	5.92
All India	5.55	6.89

Source: Mid Term Appraisal of the Ninth Five Year Plan: Planning Commission

that this Act will create an understanding of quality as much a user issue of learners, parents and local communities as providers of public schooling like the government and its academic agencies. Political decentralisation, which created the enabling framework for universalising access to schooling facility is being leveraged for improving quality.

In the area of health, Madhya Pradesh has initiated a few modest steps towards creating a Health Guarantee Scheme or more appropriately a Heath Services Guarantee Scheme (Swasth Jeevan Sewa Guarantee Yojana). Here again political decentralisation provides the institutional arrangements to move from selective health care to comprehensive health care. The problems in the health sector need extra-sector action to be effective. Many key determinants of health like safe water supply, sanitation, nutrition and the like lie outside the sector. It is here that the multi-sector mandate that village, panchayat and district have received through political decentralisation helps the health sector to create collective intersectoral action for health outcomes. The effort is to back this at the district-level through provision of Community Health Action Fund and address gaps in the provision of services including determinant services. Two health activists who are volunteers from the community will animate the Village Health Society which is the nearest unit for such collective action.

Creating greater transparency and accountability in government

Promotion of measures that ensure accountability is integral to democracy. Panchayat Raj and decentralisation upset traditionally accepted patterns of bureaucratic governance and the challenge was to reorient accountability-structures from being upward to being outward. Since 1994 powers have been vested with gram sabha for social audit of actions by elected representatives and in 1999 the provision of Right to Recall was introduced for all local bodies. The Panchayat Raj Act was reformulated to give salience to the Gram Sabha through the Panchayat Raj evam Gram Swaraj Ahiniyam whereby elected representatives have been subordinated to the collectivity of the Gram Sabha. Citizen Charters are in place for all departments since 1999 and Public Service Agreements have been initiated for 6 major departments.

A week-long Gram Sampark Abhiyan and Nagar Sampark Abhiyan where every village in the state and every ward in a town is intensely covered for a reality check on development programmes initiated in 1997 has now become institutionalised. Every month in every village a 11-point programme on basic development inputs is monitored. It has been web-enabled and readers of this document can access basic information on every village in the state of Madhya Pradesh on www.mp.nic.in/gramsampark. A measure for transparency and accountability for community schools of the Education Guarantee Scheme through the internet has been used also as a way of creating a local-global partnership on a C2C model thereby leveraging an information technology tool of the internet to promote equity. Here citizens can choose these community schools for support on an internet site www.fundaschool.org which realises the notion of a global partnership for basic education. The Government of Madhya Pradesh sees this less as a fund-raising venture and makes it clear that these resources will not be substitutive but additive but sees it as valuable for creating a community of concern around basic education. An interactive public information website in Hindi and English called www.kisanwatch.org has been set up to educate the Indian farmer on issues of relevance especially in the new context of WTO. Globalisation has to engaged with on terms that negotiated through political democracy and information is seen as playing critical role in enhancing political democracy.

Gyandoot (www.gyandoot.nic) has been a major step towards provision of citizen services in an accountable manner through an intranet linked to information and citizen services kiosks operated through entrepreneurs. Initiated in the district of Dhar in Madhya Pradesh it now covers 16 districts of the state. Most of the work relating to computerisation of land records has been completed and by March 2003 all tax systems would also have been completely computerised.

Madhya Pradesh has taken human development reporting to the village level. Village Education Registers and Village

Health Registers map the situation in the sectors of education and health and update them at regular intervals.

Supplementing political institutions with social and communitarian institutions

Madhya Pradesh made a conscious effort to rejuvenate some communitarian institutions and practices which seek to use social energy for development. One significant initiative has been the "grain bank". Grain banks used to be managed by communities to tide over adverse conditions in years of crop failure. It is a common pool of grain to which all members contribute and draw according to their need and repay. The system operates through peer pressure and community bonding. It becomes an appropriate model in those villages which remain inaccessible during parts of the year and to address seasonal hunger especially during rainy months. This practice was revived in villages identified as prone to hunger and malnutrition and over 2500 villages now have grain banks managed by self help-groups.

The system of Gram Nyayalayas has been revived and also the institution of family courts has been brought into existence in Madhya Pradesh. The Madhya Pradesh *Gram Nyayalaya* Act came into effect from 26th of January 2001. It was proposed that 1580 *Gram Nyayalayas* in all the districts barring the four districts of Mandla, Dindori, Jhabua and Badwani would be established. A total of 890 Gram Nyayalayas out of 1580 proposed have been established till September 2002. Family courts have been brought into existence in seven major cities.

Formation of Self-Help Groups where people come together for micro-finance activities has seen a major revival in the state between 1998 and now. These Self-Help Groups begin as Thrift and Credit Groups and later move into activities of micro-credit for economic activity. They are supported through a series of government programmes like the Swarna Jayanti Gramin Swarojgar Yojana, the Swashakti Yojana, the Swayamsidha Yojana, Indira Gandhi Garibi Hatao Yojana (DPIP) etc. These Self-Help Groups are also created in other programmes like the Watershed Management Mission, Joint Forest Management Programme, and the Padhna Badhna Andolan. These Groups also constitute a democratic platform which uses collective resources for development.

Self-Help Groups are being formed in the state also by voluntary organisation on which data is difficult to get. From the information available, as on June 2002, there were at least 2,60,000 self help groups in the state. If we assume that the membership would average a conservative ten, it would mean that 26 lakh families are involved in self help groups in the state. The Table 4 shows the share of groups promoted under different programmes as collated from the Commissioner Panchayats and by a study by MP-LEAP.

The most important initiative made by the state in grassroots democratisation has been the move towards Gram Swaraj. Here the process of political decentralisation is at one level deepened up to the village and at another level is transformed to embrace the entire community where powers vest with the Gram Sabha. While the law for the creation of Gram Swaraj was enacted in 2001, the institutions are gradually getting into place. The system works through stakeholder groups for key activities and has an omnibus committee in the form of a Village Development Committee. This has within it a Gram Kosh or a repository of funds. Government is placing funds with this Gram Kosh as well as empowering the Gram Sabha to raise resources to supplement the Gram Kosh. As the institutional arrangement consolidates, the scope for direct community action increases manifold.

Table 4: Self Help Groups in Madhya Pradesh

Promoters/Programmes	No. of groups
SGSY	121643
Others 1 (NABARD & DPIP)*	3307
Other 2 (Forest Deptt., Agri. Dept. & DWC&D)**	31370
Swashakti	1487
SJSRY	1698
Watershed Mission	19601
Padhna Badhna Andolan	57204
ICDS	23449
Total	259759

Source: *"SHG and MF-A Status Report and A Strategy for CARE in MP" (As on July 2001) **Office of Commissioner Panchayats and Social Welfare (as on July 2002)

Madhya Pradesh has also seen a rapid growth in the number of voluntary action groups, professional Non Government Organisations, and other civil society-based community organisations all of which cumulatively add to the democratic platform. The challenge before them is to position themselves in a way that political and social democracy is enhanced through collaborative action and not subverted or subordinated through claims of expertise. Intermediation by expert groups have to acknowledge the superiority and legitimacy of political democracy which provides for *inclusion* and as a normative ideal with even efficiency coming only next after the cardinal norm of inclusion which encompasses the right to define expertise. Capacity building for democratic decentralisation emerges as a natural challenge to give the critical edge to the entire process of democratic decentralisation.

Constraints of macro-economic factors

In the current macro-ecomomic context there are increasing limitations on sub-national entities like state governments to effectively intervene for human development. This needs to be

articulated, as there is an increasing tendency to pass on responsibilities to states on a "states-better-get-smart" argument ignoring historical factors that limit capabilities and state action. Direct public action to improve social indicators is definitely important as it could be used to improve upon or neutralise the minimally positive or even negative fall-outs of the larger process of economic growth. However it has to be seen whether the process of growth is leading to increasing unemployment, increases in income inequality, loss of social security, and such other factors vital for human development. In the Indian context there are many ways in which monetary and fiscal reform have eroded the ability of the state to implement appropriate social policies. Principally, the scope has been limited for government spending on the social sector by reducing the government's revenue base as well as forcing cuts in deficit-financed spending.

It is abundantly clear that there are initial winners and initial losers among Indian states on the rocky road to economic reform. However as yet there have not been any significant compensatory mechanisms in public policy at the national level to narrow this widening gap which could have a negative impact on human development, especially since the initial loser states are also the same states with historical burdens of low human development. The Mid-Term Appraisal of the Ninth Plan has highlighted this as a serious issue. The Eleventh Finance Commission has noted that states with good infrastructure are attracting private investment in much larger measure than states where infrastructure is weak, and suggested that Central investment should be directed taking this into view. Clearly it follows that in years to come, larger proportion of Central assistance to states would have to be devoted to attainment of basic human development objectives, and the closing of the infrastructure gaps in poorly endowed states. Allocations of Central assistance to states would have to follow a more direct approach in terms of the existing gaps in the provision of basic minimum services and infrastructure. The larger the gap between the level of facilities available in a state and the national average, the greater would have to be the allocation to ensure that no state lags behind.

The Table on Capital flows in the Annexure 1 shows Capital Flows to States substantiating the inherent inequity in the situation that is getting accentuated. Just looking at the figure of the per capita plan outlay and the per capita institutional investments, states like Madhya Pradesh fall well below developed states.

The fact that our central planning system has not been able to address this increasing gap can be seen from the data on agreed outlays of the Tenth Plan and its comparison with Ninth Plan. States like Madhya Pradesh, Bihar, Uttar Pradesh, and Rajasthan fair poorly in terms of Tenth Plan outlays (they show negative growth compared to Ninth Plan agreed outlays) while many other states, including states with better economic and infrastructure indicators such as Andhra Pradesh, Tamil Nadu, Maharashtra, fare much better. Increasingly a case of winner takes all seems to prevail as the sharpest increases are in those states which have much higher levels of private investment, developed infrastructure and better human development indicators.

External assistance, which in over all terms may constitute only 0.4% of India's GNP, is also skewed in favour of a few states. The Mid Term Appraisal of the Ninth Plan by the Planning Commission admits that seven states namely, Andhra Pradesh, Maharashtra, Uttar Pradesh, Tamil Nadu, Gujarat, Karnataka and West Bengal received more than eighty percent of the entire external assistance. Data on state wise external assistance is presented in Annexure 2.

A sensitive reform-based funding would actually focus on softening the immediate adverse impact of reform on these states and instead the current thinking seems to be to reward those with initial advantages on the grounds of moving faster on the reform track. While Madhya Pradesh is seen as a reforming state for such assistance, its larger case rests on the backlog in infrastructure and human development which requires additional resource support. It will also not be correct to highlight inadequacies in human development without reference to the possible relation this has with the strategy of growth being pursued and its impact on the resources available for social policies. In recent years states have been deprived of their expected share in central taxes. The decline in central tax-GDP ratio implies that the volume of tax revenues transferred to the states is being squeezed. This is of far greater consequences to states since their ability to borrow is not as flexible as that of the Centre. States are increasingly facing a major resource crunch to sustain a reasonable social policy agenda.

Constraints of Centralised Planning

While the above sections tried to give an overview of how Madhya Pradesh has attempted to put democracy to use in improving its human development indicators, this effort has been stymied by the dominance and proliferation of Centrally Sponsored Schemes. Centrally Sponsored Schemes limit efforts by state governments to empower local bodies and have been vitiating the principle of federalism. Chief Ministers of States had raised this issue and in the National Development Council there was a consensus on transfer of CSS to states with resources. This however, has not been implemented. The legal validity of the Centrally Sponsored Schemes is weak because many areas where these proliferate are areas belonging either to the State-List of the Constitution (Rural Development, Health, Agriculture) or to the Concurrent List (Education). It is also to be pointed out that after Seventy-third and Seventy-fourth Constitution Amendment, functions in these areas have been demarcated for local bodies. Post Census 2001, it is very clear that India is more than ever characterised by uneven development. Problems, especially in the human development area, are no more "Indian" problems but

problems of select Indian states. These therefore call for state-specific responses and strategies built on specificity of state-situations. CSS fails the human development agenda by not allowing such differential responses to emerge.

It is abundantly clear after years of planning that Central Planners have ignored strategic planning. People should be seen as a strategic resource to be deployed on finding solutions to India's development challenges. There are several examples of state governments managing to achieve results by adopting such a methodology and some instances of these in Madhya Pradesh is listed in this early part of this Chapter. However the critical issue in addressing human development is the assertion of intersectoral institutional frames. This is precisely the opportunity provided by the architecture of political decentralisation and its sub-optimal use wastes the sectoral resources deployed on the agenda. It is unfortunate to watch the multiple exercises of "sectoral reforms" being unfolded in each sector ranging from health to water supply to forestry ignoring the fundamental matrix of political decentralisation. It is also a weakness of Human Development Reports that while they have been strong on sector analysis, when it comes to solution, nothing better is offered except to increase investment in the particular sector. The equally important issue is to invest those resources through appropriate multi-sectoral institutional arrangements that create a cumulative impact across sectors and maximise returns even at the same time strengthening political democracy.

States that take the human development agenda seriously like Madhya Pradesh work under the constraints of centralised planning that prevails in spite of the consensus in sub-national political levels and academic circles against CSS. Centrally Sponsored Schemes should largely be only in the areas of "capacity building, inter-sectoral coordination, outlay monitoring, and impact studies of state-sector projects" as rightly mentioned by the Planning Commission itself in its Approach Paper to the Tenth Five Year Plan. The full potential of democratic decentralisation in furthering the human development agenda gets limited in the current context.

Refining HDI: Including a Scheduled Tribe-Scheduled Caste Development Index

Now that sub-national Human Development Reports have become an accepted practice in India to measure attainments it is perhaps time to revisit some of the indices. There is a need to look inward, within the country to identify groups that fare poorly in human development as against spatially in terms of how districts fare or how sectors fare. Deprivation in India has an obvious face of exclusion, the scheduled tribes due to social exclusion and the scheduled tribes due to geographical and cultural exclusion. Scheduled Castes suffer social deprivation on account of the residual power of a discriminatory caste system which though made illegal continues sway as a social force whereas scheduled tribes see their predicament as victims of the state which denies them property rights to their habitat. A Scheduled Tribe-Scheduled Caste Development Index needs to be developed by professionals to capture their deprivations so as to goad state policy to address them. A broad attainment index does not effectively address the roots of these very important deprivations in the Indian context. The process of democracy is at work drawing these people into the mainstream and seeking to address their specific concerns. How well this is being done needs to be assessed through the development of a Scheduled Tribe-Scheduled Caste Development Index. This is a task we are identifying for our next Human Development Report by which time relevant census information will be available.

ANNEXURE 1: CAPITAL FLOWS TO STATES

States	Population 2001	Per Capita NSDP (Rs.) 99-00	Credit Deposit Ratio 2001	Public & Pvt. Invest. (Rs. Cr) Oct 2001	Public & Pvt. Invest. per Capita (Rs.)
Non Spl. Category States					
Andhra Pradesh	75,727,541	14715	64.9	162416	21447.42
Bihar	82,878,796	6328	20.7	23634	2851.63
Chhattisgarh	20,795,956	@	49.9	25389	12208.62
Goa	1,343,998	NA	27.3	7534	56056.63
Gujarat	50,596,992	18685	53.6	171399	33875.33
Haryana	21,082,989	21551	54.0	19399	9201.26
Jharkhand	26,909,428	@	30.6	24503	9105.73
Karnataka	52,733,958	16343	61.8	130651	24775.50
Kerala	31,838,619	18262	42.3	38955	12235.14
Madhya Pradesh	60,385,118	10907	52.5	44001	7286.73
Maharashtra	96,752,247	23398	83.5	169855	17555.66
Orissa	36,706,920	9162	41.6	93694	25524.89
Punjab	24,289,296	23040	42.3	30818	12687.89
Rajasthan	56,473,122	12533	49.6	38194	6763.22
Tamil Nadu	62,110,839	19141	90.6	163303	26292.19
Uttar Pradesh	166,052,859	9765	31.9	54859	3303.71
West Bengal	80,221,171	15569	43.4	57058	7112.59
Spl. Category States					
Arun. Pradesh	1,091,117	14338	22.1	4134	37887.78
Assam	26,638,407	9720	38.1	112303	42158.30
Manipur	2,388,634	11370	40.7	1207	5053.10
Meghalaya	2,306,069	11678	17.3	697	3022.46
Mizoram	891,058	NA	29.0	1196	13422.25
Nagaland	1,988,636	NA	13.6	273	1372.80
Sikkim	540,493	13356	14.5	6628	122628.79
Tripura	3,191,168	10213	21.7	5609	17576.64
Himachal Pradesh	6,077,248	15012	25.7	31664	52102.53
Jammu & Kashmir	10,069,917	12338	33.5	17034	16915.73
Uttaranchal	8,479,562	@	23.9	16911	19943.25
Union Territories					
A & N Islands	356,265	NA	27.5	77	2161.31
Chandigarh	900,914	46347	99.3	1170	12986.81
Dad.&Nag Haveli	220,451		135.2	584	26491.15
Daman & Diu	158,059		75.3	12	759.21
Delhi	13,782,976	35705	57.6	16246	11787.00
Lakshadweep	60,595		11.8	24	3960.72
Pondicherry	973,829	30768	35.8	2072	21276.84

Source: Various Publications of Planning Commission, Government of India

ANNEXURE 1: CAPITAL FLOWS TO STATES

Plan Outlays (Rs. Cr) 2001-02	Per Capita Plan Outlay (Rs.)	Instl. Investment (Rs Cr.) 2001	Per Capita Inst. Investment (Rs.)	Total Credit Utilized in States (Cr.) Mar. 2001	Per Capita Total Credit Utilised in States (Rs.)
7816.48	1032.18	6887.36	909.49	35348.76	4667.89
2644.00	319.02	4524.49	545.92	5547.18	669.31
1312.00	630.89	66.66	32.05	3748.97	1802.74
460.00	3422.62	244.72	1820.84	1947.27	14488.64
6500.00	1284.66	3641.14	719.64	29482.99	5827.02
1814.17	860.49	1743.57	827.00	10747.41	5097.67
2250.00	836.14	98.43	36.58	4733.35	1758.99
7903.79	1498.80	3628.24	688.03	33856.03	6420.16
2260.00	709.83	3733.05	1172.49	18697.06	5872.45
3937.76	652.11	4380.59	725.44	15264.19	2527.81
10834.00	1119.77	6383.38	659.77	144064.2	14890.01
2300.00	626.58	3851.48	1049.25	6262.34	1706.04
3021.00	1243.76	2618.59	1078.08	18718.77	7706.59
4642.35	822.05	5161.87	914.04	13662.06	2419.21
5200.00	837.21	4405.87	709.36	57106.8	9194.34
4872.77	293.45	10274.34	618.74	27192.58	1637.59
5693.31	709.70	5308.71	661.76	29475.59	3674.29
660.91	6057.19	59.8	548.06	135.51	1241.94
1710.00	641.93	1663.25	624.38	3759.79	1411.42
352.65	1476.37	138.76	580.92	175.76	735.82
472.82	2050.33	262.91	1140.08	285.35	1237.39
441.51	4954.90	78.07	876.15	114.74	1287.68
411.47	2069.11	266	1337.60	122.45	615.75
300.00	5550.49	105.32	1948.59	88.1	1629.99
560.00	1754.84	196.15	614.67	339.08	1062.56
1744.51	2870.56	107.49	176.87	1903.38	3131.98
2050.00	2035.77	817.46	811.78	3313.21	3290.21
1050.00	1238.27	13.26	15.64	2233.33	2633.78
370.00	10385.53	–		106.26	2982.61
154.11	1710.60	–		7509.27	83351.69
51.48	2335.21	–		299.41	13581.70
42.19	2669.26	–		304.24	19248.51
3800.00	2757.02	195.8	142.06	61306.79	44480.08
104.98	17324.86	–		6.49	1071.05
355.00	3645.40	0.24	2.46	575.03	5904.84

ANNEXURE 2: FLOW OF EXTERNAL ASSISTANCE TO STATES

States	1997-98	1998-99	1999-00	2000-01	2001-02	Total	Average
Andhra Pradesh	1117.94	624.72	1440.51	1442.34	3755.84	8381.36	1676.27
Arun Pradesh	0.00	0.00	0.00	0.00	0.32	0.32	0.06
Assam	0.22	33.16	41.19	78.26	93.25	246.08	49.22
Bihar	132.26	112.78	130.41	63.67	16.83	455.96	91.19
Goa	10.82	5.73	0.45	0.00	0.00	16.99	3.40
Gujarat	219.27	267.65	512.33	891.24	1604.96	3495.45	699.09
Haryana	221.25	165.01	280.85	296.66	151.93	1115.70	223.14
Himachal Pradesh	0.00	0.00	15.56	56.40	38.16	110.12	22.02
Jammu & Kashmir	10.51	8.42	24.84	15.71	38.05	97.53	19.51
Karnataka	264.48	316.49	456.70	579.50	1691.74	3308.91	661.78
Kerala	38.73	40.85	41.55	77.16	96.99	295.28	59.06
Madhya Pradesh	117.32	163.26	598.67	172.68	819.60	1871.53	374.31
Maharashtra	1073.68	597.13	245.36	318.70	289.23	2524.11	504.82
Manipur	0.00	8.96	18.43	19.57	16.27	63.23	12.65
Meghalaya	0.00	0.00	0.62	8.15	43.12	51.89	10.38
Mizoram	0.00	0.49	3.19	1.89	3.49	9.06	1.81
Nagaland	0.00	0.00	0.00	0.00	1.06	1.06	0.21
Orissa	535.54	415.83	391.56	516.34	310.50	2169.76	433.95
Punjab	149.91	171.11	106.35	187.15	209.58	824.11	164.82
Rajasthan	230.11	225.17	188.09	248.42	99.12	990.91	198.18
Sikkim	0.00	11.69	2.09	0.50	1.92	16.20	3.24
Tamilnadu	568.52	305.16	591.41	775.14	340.19	2580.42	516.08
Tripura	0.00	0.00	0.00	0.03	3.67	3.69	0.74
Uttar Pradesh	721.39	465.05	431.22	1697.90	606.37	3921.92	784.38
West Bengal	542.31	886.21	819.67	636.09	688.45	3572.74	714.55
Chhattisgarh	0.00	0.00	0.00	0.00	7.17	7.17	1.43
Jharkhand	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uttaranchal	0.00	0.00	0.00	9.73	17.41	27.14	5.43
Total	**5954.25**	**4824.89**	**6341.06**	**8093.24**	**10945.23**		**7231.73**

Source: Various publications of Planning Commission, Government of India

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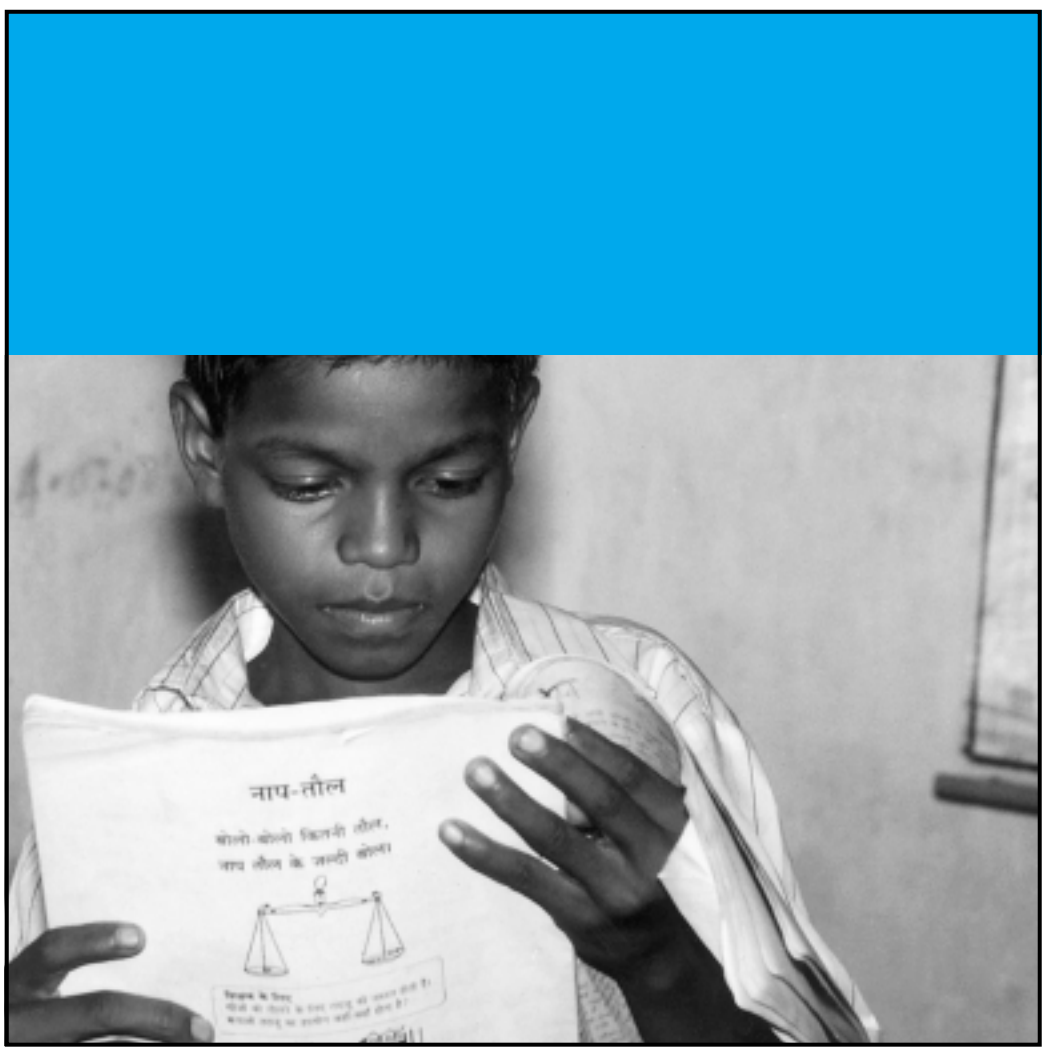
Abbreviations

ADB	Asian Development Bank
Agri	Agriculture
AIDS	Acquired Immuno Deficiency Syndrome
ALS	Alternative Learning Sources
ARI	Acute Respiratory Infection
B.Ed.	Bachelor of Education
BAS	Base Assessment Tests
BMI	Body Mass Index
BSNL	Bharat Sanchar Nigam Ltd.
CAGR	Compound Annual Growth Rate
CARR	Compound Annual Reduction Rate
CDS	Current Daily Status
CE	Continuing Education
CHAMP	Catholic Health Association of Madhya Pradesh
CHC	Community Health Center
CSO	Central Statistical Organisation
CSS	Centrally Sponsored Schemes
CWS	Current Weekly Status
DPC	District Planning Committee
DPEP	District Primary Education Programme
DPIP	District Poverty Initiatives Project
DRDA	District Rural Development Agency
EFA	Education for All
EFC	Eleventh Finance Commission
EGS	Education Guarantee Scheme
FRU	First Referral Unit
GAR	Gross Access Ratio
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GFCF	Gross Fixed Capital Formation
GOI	Government of India
GoMP	Government of Madhya Pradesh
GSA	Gram Sampark Abhiyaan
GSDP	Gross State Domestic Product
HDI	Human Development Index
HDR	Human Development Report
Hh	Household
HR	Human Resource
IAS	Indian Administrative Services
ICDS	Integrated Child Development Scheme
ICOR	Incremental Capital Output Ratio
ID	Institutional Development
IF	Infrastructure
IFA	Iron Folic Acid
IMR	Infant Mortality Rate
Instl.	Institutional
Invest.	Investment
IT	Information Technology
JSK	Jan Shiksha Kendras
k.m.	Kilometer
LSA	Lok Sampark Abhiyaan
MAS	Middle Assessment Tests
MDM	Mid Day Meals
MIS	Management Information System
MLA	Member of Legislative Assembly
MMR	Maternal Mortality Rate
MMRL	Multi Media Rich Lessons
MP	Member of Parliament
MPBA	Mahila Padhna Badhna Andolan
MPVHA	Madhya Pradesh Voluntary Health Association
NABARD	National Bank for Agricultural and Rural Development
NFE	Non Formal Education
NFHS	National Family Health Survey
NHDR	National Human Development Report
NIC	National Industrial Classification
NLM	National Literacy Mission
NNMB	National Nutrition Monitoring Bureau
NR	Natural Resources
NSDP	Net State Domestic Product
NSS	National Sample Survey
NTFP	Non Timber Forest Produce
OBC	Other Backward Classes
ORT	Oral Rehydration Therapy
PBA	Padhna Badhna Andolan
PCI	Per Capita Income
PDS	Public Distribution System
PHC	Primary Health Centre
PNDT	Prevention of mis-use pre natal diagnostic techniques
PRI	Panchayati Raj Institutions
PTA	Parent Teacher Association
PTR	Pupil Teacher Ratio
Pvt.	Private
RCH	Reproductive and Child Health
RDA	Recommended Daily Allowance
RG	Rajiv Gandhi
RKS	Rogi Kalyan Samiti
RMP	Registered Medical Practitioners
RNTCP	Revised National Tuberculosis Control Programme

RTI	Reproductive Tract Infection
SC	Scheduled Castes
SCERT	State Council of Educational Research and Training
SD	Standard Deviation
SDP	State Domestic Product
SHC	Sub Health Centers
SHG	Self Help Group
SHPC	Selective Primary Health Care
SRS	Sample Registration Scheme
SSA	Sarva Shiksha Abhiyaan
ST	Scheduled Tribes
TAS	Terminal Assessment Tests
TB	Tuberculosis
TFR	Total Fertility Rate
TLC	Total Literacy Campaign
UEE	Universal Elementary Education
UNFPA	United Nations Population Fund
UP	Uttar Pradesh
US	Usual Status
UT	Union Territory
VEC	Village Education Committee
Vit. A	Vitamin A
WPR	Worker Participation Rate
WTO	World Trade Organisation
ZP	Zilla Panchayat

Glossary

Gram Sabha	Village Assembly
Mandi Samitis	Agricultural Marketing Societies
Guruji	Teacher
Dai	Midwife
Tendu Patta	Leaves of Diospyros melanoxylon
Gurudakshina	Gift or fee to a guru (teacher) by an initiate
Gram Nyayalaya	Village Court
Gram Kosh	Village Fund
Dalit	Those belonging to socially oppressed communities
Majras/ Tolas/ Phalias	Hamlets
Prerak	One who incites or stimulates
Adivasi	Tribal


नाप-तौल

Universalising Elementary Education in Madhya Pradesh

"Now, this schoolroom is a Nation. And in this nation there are fifty millions of money. Girl number twenty, isn't this a prosperous nation and a'int you in a thriving state?"

"I thought I couldn't know whether it was a prosperous nation or not, unless I knew who had got the money and whether any of it was mine," said Sissy, wiping her eyes.

(Charles Dickens, *Hard Times*)

Sissy Jupe's problem as to how one determines the quality of life of a human being persists. It is not enough to know about the availability of resources, but also of their distribution and quality, and it is not enough to know only of the economic resources but equally of the other social resources that help people conduct their lives. If the quality of life cannot be neatly set forth in tabular form, because it involves complex questions of human perceptions, relations, choices and opportunities, what kind of measurement can be trusted to give a satisfactory account of well being? The question becomes more complex in considering issues like education, where the understanding of education can sweep such a wide spectrum that while its one end may permit simple formulations, its other end gets increasingly problematised because it raises questions about the meaning and end of human life, the nature of human values, freedom and capability-questions on which there is no easy consensus, and even if there is, no easy forms of assessment.

Education as an expression of human development is seen to have both intrinsic and instrumental value. Such an understanding of education requires methods that assess the availability of educational resources as basic opportunities, and its quality. Quality itself is a complex issue. It requires an evaluation of skill development, and comprehension which can range from scholastic aptitudes that are more commonly measured to the capacity to analyse and connect practical applications and abstract thought which is still not commonly assessed to the capacity for critical enquiry which is more difficult and almost never assessed. Whether a person is educated or not, whether a system is imparting quality education will thus depend on which end of the spectrum one chooses to look from.

In attempting to describe the status of elementary and adult education in Madhya Pradesh, the effort has been to assess the distributive aspects on the basis of data available, and for qualitative aspects to focus on the processes to assess whether they seek to enable more informed, more professionally competent interactions in schools for improving learner comprehension. Going beyond the question of scholastic capabilities to assess whether educational initiatives seek to promote greater equity and enlarge the scope of freedom is difficult because it hinges on issues of a complex societal character. However, being an issue that ultimately defines the essence of education an attempt has been made to examine the process of educational management to see whether the education system redefines relationships within the school and between the school and the community in a way which seeks to transfer power to those whose education is in question. With this understanding, the key indicators of elementary education commonly prevalent have been accepted to describe the current status. These are discussed below.

Key indicators of elementary education

Key indicators of educational attainment are defined as

- Universal access to elementary schooling
- Universal enrolment of children of age group of 6-14 years.
- Universal retention of all enrolled children till they complete elementary schooling
- Universal achievement, implying that all children acquire satisfactory levels of learning.
- That education intervenes effectively for equity.

The Context of Madhya Pradesh

It is significant that whereas the National Policy on Education of 1987 (revised 1993) – stipulated Universal Elementary Education (UEE), the state documents of policy and programme do not talk about UEE till about 1994. Prior to 1994, the state's action for education is evinced in discreet, dispersed, small incremental accretions of schools. These

additions too, are on an ad-hoc basis, without realistic estimates of the size of the problems and the impact of the additional benefits. No goals are set to measure performance against policy. If discourse is an indicator of government commitment which, because the process of development is a continuous one it is, then this absence of a consciously articulated strategy for UEE is a sort of indicator of the level of awareness and commitment to UEE. The year 1994 marks the first-ever efforts to address the goal of UEE, beginning with an increasingly growing concern of the state for universal primary education and by 2000 moving up to a concern for universal elementary education. It is significant that this concern sparks off with the emergence in the state of the elected panchayats dotting almost each village with a Panchayat Raj Institution (PRI). The idea of universality pushes itself up as an inevitable corollary of the deepening and broadening of the democratic process up to the village level. State educational planning moves from piece meal provisioning to a concern for All and a search for strategies that address All. This was challenging in view of historically entrenched problems.

Historical Challenges

The 1991 census revealed that in Madhya Pradesh, 56 percent of the population was illiterate, 70 percent women were not literate. Literacy rates were lowest for the scheduled castes and scheduled tribe i.e. 35.1 percent and 21.5 percent respectively. Access to schools was a problem, which had both physical and social implications. This was because the norms for opening a school in a village with population between 250 and 300 ignored the scattered and inaccessible habitation pattern of the state, where people live dispersed in small household communities, one to four kilometres away from the main village. These areas are generally inhabited by socio-economically deprived communities resulting in their needs getting submerged within standardised norms and strategies. Till 1996, out of 0.11 million habitations in the state, approximately 30,000 were without basic schooling facility. A centralised and highly bureaucratised education management system created its own distortions. Planning was centralised and so failed to reach out to the needs of the people. This perhaps was best exemplified in the norms created for access.

Excessive centralisation had also resulted in inadequate academic support to schools. There was no structural link between the district level academic support structures such as DIETs and the schools. There was no systematic plan for regular in-service teacher training. No effective system of academic supervision, feedback and discussion existed at the school level, the supervisor school ratio being 1:80. Education of the community had no lateral accountability to the local community. This was perhaps reflected in the dysfunctionality of the schools, teacher absenteeism and low quality of teaching.

Contesting development needs competed for budget resources affecting allocations for the education sector. In Madhya Pradesh the expenditure on school education was roughly 10 percent of the total budget and salaries accounted for approximately 95 percent of this expenditure. These constraints were reflected in key educational indicators – Madhya Pradesh had poor access (70 percent), low enrolment (72 percent), low retention (65 percent) and low achievements.

A New Vision

The educational vision of the state is shaped by the overall vision of human development in the state. The development vision of the state has shown a marked movement away from people as recipients to people as agents. The participatory process of development is seen to have as much value as the product at the end, and the extent of its inclusiveness is seen to be as much an indicator of development. This is true of education. The emphasis on education is creating conditions that enable people to come together for their education. Therefore the way a school or a literacy class comes into existence, or gets managed become significant issues rather than simply sanctioning schools from the top. The relationship between the teacher and the local community becomes significant rather than between the teacher and a government hierarchy on top. Whether all children have equal access to opportunities is as important an issue as the quality of opportunities created. The issue of quality itself gets expanded to mean not just the text but also the context. School-community interface, the behavioural responses of children teachers and parents towards the school, social expectations of the school, the sense of inclusiveness and ownership-these intangible attributes start influencing the notion of quality as much as its more tangible features as physical conditions and scholastic measurements. This has certain implications. It requires that the state develop processes and policies that balance local autonomy with normative standards, professional capabilities with a sense of ownership and accountability, structural flexibility with common goals.

New Opportunities

The main emphasis in Madhya Pradesh, since 1994 has been on universalising primary education and since 1999 this concern has enlarged to encompass universalisation of elementary education. The strategic framework for this was created by new opportunities in the State.

DECENTRALISATION OF GOVERNANCE

Decentralisation became the premise for development in the State, because it was seen to open up opportunities for new ways of doing things and because it was possible to create new partnerships. The dichotomy between demand and supply, between provider and receiver could be dissolved. Stakeholders could be given greater control and ownership. The single most significant change in Madhya Pradesh's vision

Parent Teacher Association: Institutionalising local ownership

A critical determinant to the quality of schooling is the extent of local ownership and accountability and the challenge here is to create institutional arrangements that help to establish the school as a unit responsive to the learning needs of the children and the educational aspirations of the community.

The idea of a Parent Teacher Association (PTA) offers an option in this direction. The Madhya Pradesh *Jan Shiksha Adhiniyam* (see Box) stipulates setting up PTA, giving it a legal status. The PTA as the term implies, consists of all parents of the children studying in the school along with all the teachers. The PTA elects a President and Vice President from itself. The Head Teacher of the school is the Secretary of the PTA, which meets once a month.

Recognising the need to strengthen the school as unit the PTA has been given powers to facilitate effective school functioning and to make the school management responsive to the needs of children.

Responsibilities of the PTA include:

- Ensuring cent percent enrolment of children in 5-14 years age group.
- Ensuring regular attendance of students and teachers.
- Assist in the development of school and school assets.
- Present the needs of learners to *Gram Sabha* for availing of the benefits/grants from it.
- Assist the teachers in the discharge of their duties to impart quality education.
- Raise funds for the development of school.
- Motivate illiterates and Neo-literates to wards sustainable continuing education

The Rights of the PTA include the following:

- Preparing the *Jan Shiksha Yojana*.
- Maintain, operate and strengthen *Shala Shiksha Kosh*.
- Decide and recommend a school uniform for the students of the school.
- Monitor the children's growth in the achievement levels in the various competencies of different subjects.
- Supervise and review all development, academic, administrative and financial activities of the school.
- Decide a cess for the development of the school.
- Recommend withholding salaries of teacher in case of wilful default.
- Examining and advising on the Public Evaluation Report (*Jan Shiksha Pradivedan*)

PTAs are at the initial formative stage. The current paradox is that good schools with motivated teachers tend to have stronger, more involved PTAs; and relatively less functional schools have weaker PTAs; whereas the need for strong PTAs really exists for these weaker schools. Currently, the character of the school tends to determine the character of the PTA. Till date, 1,03,546 PTAs have been formed.

A PTA that evolves a reciprocal balance of rights and responsibilities in the interest of the children's learning would offer an instance of participatory school management where local ownership and accountability cohere and the dichotomy between demand and supply, between provider and receiver dissolves.

Training of PTAs then becomes of critical significance.

of development is the recognition of the agency of people as central to development. The relationship between state government and people has been perceived as one of partnership based on mutual right and responsibilities. This has been the guiding vision in the choice of strategies. This vision has been articulated as the new architecture of governance grounded on decentralisation, lateral accountability and increasing space for direct community action. The panchayat system provided an institutional framework for decentralisation right down to the village level. The state government also introduced the system of District Government and recently the village government system, further decentralizing the power of the state level administrative structure to the district and village level. The implication of this development vision is that development is measurable not just through creation of assets and resources, but through the effectiveness of the process of empowering communities to make choices and participate in creating those assets and resources. If this has been the vision, then how did it express itself in the planning of education especially in its basic levels of Elementary Education and Adult Literacy and with what results?

The key objective for educational planning was decentralisation of educational management. It should be remembered here that decentralisation of educational management here and the attempt to give greater space to direct community participation has been an end in itself because it expresses the belief that strengthening processes of democracy is itself a larger understanding of education.

The effort of the government has been to move increasingly towards user groups at the grass root level, and so establishing structures that enable their direct participation in the management of schools.

The education sector saw a very substantive delegation of powers to the local panchayat bodies and Village Education Committees (VECs). Recruitment and transfer of teachers, construction of school buildings and procurement of school equipment have become the responsibility of the panchayats. The VEC have been reconstituted under the recent amendment in the Gram Swaraj Act, further decentralising powers to the village government acquired a statutory existence and has been entrusted with powers to supervise the local schools. A Parent Teacher Association (PTA) has been envisaged for each school with substantive powers in school management. The PTAs are in the process of being set up.

A significant strategic choice made by the Government for focused action on primary education through decentralised process was the setting-up of Missions on select areas of development to address identified tasks in a time-bound manner. The Mission on universal primary education designated as the Rajiv Gandhi Shiksha Mission was carved out from the education sector for focused action on primary education and adult literacy, and subsequently since 1999, made into a mission for elementary education and literacy for the State. The idea of the Mission, although it started off as a programme delivery, bears significance in Madhya Pradesh because it has evolved into a sustainable structural arrangement for delivering elementary and adult education and has sought to move educational management into a more participatory, societal mode.

The emergence of the State government policy of decentralisation and support to community processes coincided historically with the entry in the state of a major externally aided programme in the education sector. This was the District Primary Education Programme (DPEP) introduced in 33 districts of low literacy in the state, in 1994 in its first phase and 1997 in its second phase. DPEP's concern for decentralised participatory action aimed at improving primary education was in consonance with the state government's policy. The strategic framework of DPEP was constituted by elements of district based decentralised planning and community participation, emphasis on capacity building of teachers, teacher educators, educational managers, space for contextual innovation, a wide array of strategies ranging from social mobilisation, material development to infrastructure improvement and adopting a societal Mission approach to implementing basic education programme. Decentralisation and the resources made available to the state under DPEP created opportunities for innovative action to address long standing problems.

By the beginning of the tenth plan, the issue of universal elementary education has been addressed through a comprehensive programme – the Sarva Shiksha Abhiyan, which will reinforce the work for strengthening the primary base, and build the upper primary base.

Decentralised, participatory problem mapping

Decentralisation opens up the possibility of alternative lateral thinking critical for development. The problem of development is to find ways of understanding and articulating the needs of the community undocumented or obscured by predetermined categories of planning needs. The only way to do this is to encourage shifting the perspective from the government to the community. Looked at from the point of view of the community, the problems may be re-defined, provoking a review of existing assumptions and norms. Solutions will emerge and planning norms move closer to people's needs-as the people themselves perceive them to be.

Decentralisation of education has facilitated the introduction of alternative methods of participatory problem mapping. A system of collective micro planning on a habitation basis to assess the status of children's schooling out of school and educational & infrastructure facilities was initiated to enable disaggregated problem mapping. This was designated Lok Sampark Abhiyan (LSA). The first LSA was undertaken in 1996 and the second in 2000-01. LSA-I aimed at finding out how many children were going to school, what were the reasons for those not doing so, and what was the outreach of schooling facilities. LSA-I conducted in 1996 covered 55,295 villages and contacted 6.1 million households and 10 million children. LSA-I revealed that only 70 percent of the habitations had access to primary schools. LSA-I also demolished the myth of universal enrolment. Enrolment was not more than 70 percent. Most children reported as dropouts had never been enrolled. The most deprived were girls and children from scheduled tribes. Another round of household survey was carried out as LSA-II in 2000. It identified middle school gaps and measured the progress of educational indicators at the primary level and established a benchmark for the upper primary. It has made possible the formulation of a comprehensive state perspective UEE plan with district specific perspective plans. Lok Sampark Abhiyan (LSA) I and II become important processes for documenting status, drawing attention to gaps and provoking prompt action and demonstrate the efficiency of decentralisation, which is the premise for planning. LSA I and II make possible the measurement of attainments of key educational indicators in a comparative frame of 1996 and 2001 – a period of 5 years, beginning after the first HDR that flagged a set of issues for educational planning. The issues that have been addressed on priority by the state working towards universal elementary education are discussed below.

Creating access to elementary education

LSA made visible the large access gaps particularly highlighting the very deprived areas and groups. Current norms of school provisioning stipulated a primary school within a kilometre and upper primary or middle school within 3 kilometres of the habitation. LSA also threw into relief the nexus between geography and deprivation – both social and economic, since most of the unserved habitations were inhabited by SC/ST groups revealing access to be a social issue and not just a physical one.

a. Access to primary schools

Responding to the demand for schools, the state Government evolved an innovative scheme for universalising access. This was the M.P. Education Guarantee Scheme (EGS). EGS was launched in January 1997. The scheme is sensitive to the habitation pattern in the tribal areas of the state where people reside in hamlets called majras, tolas or phalias that are distant

Myths like 'Non-Formal' and 'Para Teachers'

Discussion on issues of universalising elementary education of quality in a cost-effective manner will require moving beyond certain fuzzy categories which trap the delivery of universal elementary education such as 'Formal' and 'Non-Formal', —'teacher and para teacher.

Educational initiatives would have to be understood and assessed in terms of their objectives and context rather than by terms like formal school and non-formal centre in the way they are currently used to denote superior-inferior systems. Some attributes derived historically have been associated with the term formal school. These are four-to-five hours of schooling, clearly marked grades with fixed duration, usually of a year each, a fixed curriculum and an affiliation to a recognised public system of examination and certification. That this is an inadequate description and in no way a definition is evident. Within a broad framework, there are differences expressed in the form of management, materials, teachers, infrastructure, academic processes, system of evaluation and promotion. According to the Oxford Advanced Learner's Dictionary, the word 'formal' includes a definition of formal "education or training received in a school, college or university with lessons, examinations etc., rather than gained through practical experience.' Looked at like this, all non-formal centres, the government at State or the Centre has so far supported are highly formal schools. The terms formal and non formal will have historical and relativistic connotations and should not be used as judgemental categories.

In this context, the EGS that Madhya Pradesh introduced in 1997 perceives the school as a process that evolves towards acquiring attributes of higher quality, rather than a static entity reified as formal and non-formal.

The second set of oppositional terms associated with the formal and non-formal debate, is the teacher/ para teacher issue. If the teacher is meant to be one who is on a permanent official pay roll, then private schools or most American universities who employ people on contract would be said to have para teachers on roll. If teachers mean people paid officially fixed salary scales then the same situation would follow. If teacher means a certain level of remuneration decided by Pay Commissions then again, several teachers in private schools would become para teachers. If teacher means a full time teaching person, then several teachers called para-teachers would deserve to be called teachers. If qualifications are stipulated, then again a large number of teachers would become para teachers, because eligibility criteria are not uniform either among state governments, or among private schools. Conversely several so called para-teachers would become teachers because they have the same qualifications as those of the official teachers such as the gurujis of Madhya Pradesh's EGS. If modes of recruitment are considered then, again a large number of para teachers become para teachers because recruitment modes and procedures are widely differing among states and among private institutions.

The dichotomy between school and centre, teacher and para teacher would have to go. The focus should be on children going to schools assuming the terms to indicate the diverse forms that schools can and ought to take, rather than on fragmenting children into categories going to formal schools and NFE centres. This is not a matter of semantics. It perpetuates cumulative deprivations for those children who most need the learning opportunities that are available.

from one another. A historical backlog of about 30000 accessless habitations could be eliminated in 2 years time. The EGS also aimed at time bound provisioning of schools and was therefore postulated on Government guaranteeing a school in 90 days. EGS works through a tripartite sharing of responsibilities between panchayats, community and state Government. Now every habitation in the state has a schooling facility within a km. By August 1998 Madhya Pradesh declared universal access to primary education *(Annexure-1)*. The benefits of the EGS have gone to the backward areas and the deprived children. About 40 percent of the EGS schools are in tribal areas, 45 percent children are from ST families, 91 percent children are from SC, ST and other backward classes. Universalisation of access through EGS clearly indicates that it is not just a geographical outreach, but also a very significant socially inclusive strategy.

The state government's intervention has been very significant in creating access in the primary sector where the government's share is 84 percent. The government policy for private schools is liberal. Anyone can open a school, with an affidavit, since no prior permission is required. The idea is to encourage a wide network of institutions for primary education.

b. Access to upper primary

A gap of about 7575 schools was estimated as of 2000. 7575 schools are being upgraded into upper primary *(Annexure 2)*. This will ensure universal access to the upper primary, implying that each primary school has an upper primary schooling facility within 3 kilometres. In the case of upper primary, 66 percent of upper primary access is through government funded schools and 34 percent through private.

The issue of quality

The issue of quality has been comprehensively defined to include diverse factors that impact on school effectiveness. This includes the following:

- Physical infrastructure
- Academic inputs and processes
- School management
- Physical infrastructure – The quality of learning space

Physical infrastructure – The quality of learning space

Emphasising decentralised construction of school buildings, encouraging community participation, has resulted in lowering construction cost. Programmes like DPEP have contributed towards gap filling in the physical infrastructure. 236

Block Resource Centres (Teacher Training Centres) have been constructed in 33 DPEP districts to facilitate teachers' training at the block level. A big gap of 20000 schools without buildings was covered in a space of five years. Decentralised construction through village level committees and cost effective techniques have characterised such construction.

Drinking water facility, toilets (common and for girls) have been provided to the government school through convergence of resources and community contribution. Percentage of schools with drinking water facility has increased from 57 percent in 1997 to 66 percent in 2000-01. Despite the efforts that have been made to mobilise resources from different programmes to provide school buildings large gaps in infrastructure persist. *Annexure-3* shows the status of schools without buildings and without drinking water and toilets.

The quality of academic inputs

Key issues in the improvement of the quality of academic inputs are of resources, teacher provisioning and teacher qualification, curriculum and teaching learning materials, capacity development of teachers, availability of academic support to schools and teachers and the system of evaluation.

a. Provisioning of teachers (Pupil-Teacher Ratio-PTR)

A suitable pupil teacher ratio is necessary for ensuring quality of learning. The system of multi-grade teaching affects the efficiency of teaching learning reduces time for transaction and specially for process of continuous evaluation alternative for diagnostic and remedial action. Comparison of data of enrolment and teachers of different years shows a rising trend in PTR because of increase in enrolment.

Table 1

Year	Number (in lakhs)		PTR
	Enrolment (I-V)	Teachers (Primary)	
*AIES 1993	82.46	1.78	46
** Year 2000-01	69.42	1.46	47

* Including Chhattisgarh

** Data of government schools of M.P.

The present PTR at the upper primary level is 38.

The State government has taken a number of decisions about teachers. First, the cadre of teacher appointed on a permanent basis on a government pay scale has been brought to an end. In its place teachers are appointed on a contract basis. Teachers are employed by panchayats on a fixed contract, which has been pitched at a lower level than the old scale. This has been the corollary to the panchayat-based decentralisation. The eligibility criteria, in terms of minimum educational qualifications have been the same as for the earlier lot of teachers. There are 3 main types of teachers i.e. the traditional assistant teachers; teachers appointed by local bodies comprising of the Shiksha Karmi and Samvida Shikshak who are the contract teachers and the Gurujis of EGS schools. The latter two types are appointed against schools and are not transferable. EGS gurujis are chosen by the local community and are local residents. The same minimum educational qualification is applicable to all but the recruitment procedure differs which affect their perception of themselves as teachers. The Shiksha Karmis and Samvida Shikshaks are accountable to block and district level panchayats bodies, while gurujis are accountable to the local community. Fixing teacher remuneration at a lower level and devolving teacher recruitment to block panchayats led to a rapid provisioning of teachers. Sample data reveals that the new policy towards teachers has encouraged a greater number of women and persons from SC and ST and OBC groups to enlist as teachers. This can be attributed to three reasons. Local recruitment, therefore greater dissemination of information and awareness, recruitment against school and therefore non-transferability of service, broader-based character of panchayats as recruitment agencies therefore greater sensitivity to issues of caste and gender.

b. Curriculum

The curriculum of primary level was reviewed in 1994 to introduce elements of competency based, activity based and child friendly pedagogy. Based on the new curriculum, the state has now introduced new teaching learning materials at the primary stage. Textbooks are self contained and each textbook is divided into a number of lesson covering several teaching sessions, each of which comprises signposting to the specific competencies addressed, student material and teacher guidance in the form of footnotes. The textbooks have a shelf life of five years, after which they are revised in the light of experience, evaluation and changing ideas about teaching and learning. Review of the curriculum and materials for the upper primary is in process. The need for a rich pool of useful teaching learning materials as alternative learning sources beside the textbooks, has been recognised. This is being served through a school library movement implemented in a phased manner. School libraries have been established in 982 JSKs and 8582 EGS schools. Procedures are also being established to open up the school libraries to community after school hours, by integrating them with the libraries established under adult education programmes and to encourage systems of community ownership and user fee.

The potential of information technology has been recognised to enrich educational processes. A programme for Computer enabled education has been introduced at the elementary school level to provide computer – enabled education to rural school children. 648 Jan Shiksha Kendras have been covered under this programme named Headstart 2429 teachers have been trained in two phases. Positioned in rural schools Headstart aims at bridging the digital divide. A

syllabus for Headstart lessons has been developed. Educational software on Language Hindi and English, Mathematics and Environment Sciences has been developed to help the teachers reinforce textual materials and encourage children through interactive learning. These multi-media rich lessons aim at strengthening learning competencies and expand the knowledge base of students and teachers and develop computer literacy along with it.

c. Teacher Education

The variety of teachers poses challenges for training:

- Differences of training requirement get aggravated, and that too, on a very large scale
- The state government has not had a policy of pre service training as a mandatory pre requisite for teacher recruitment. Therefore quite a large number of teachers and specially *shiksha karmis*, contract teachers and *guruji* do not have pre service training. This creates a need for careful perspective planning for developing their capabilities.
- In addition there are pedagogical challenges created by first generation learners and heterogeneous multi age – multi ability groups.

The strategy for training therefore has been sensitive to these complexities. Trainings have focused on the primary teachers raising the number of teachers trained from an average of 473 per district per year to 2731 per district per year from 1994 to 2001. Average teachers trained per year since 1995 have been approximately one lakh. The mode of distance learning has been used to supplement teacher training. 4050 teachers have been trained through this mode, on an average annually since 1996. Teacher training till recently tended to be highly centralised. Training modules were developed at the state level and run uniformly throughout all districts. Over the recent years because of continuous decentralisation of programme management and focus on learner evaluation especially in terms of learning outcomes, the need for decentralised and contextualised responses to teacher training requirements was acknowledged. The state teacher training policy now has decentralised basic inductional and in-service training to the districts. Districts map and analyse their training needs, and develop and implement their training plans. This policy has been put into effect full scale for the year 2001-2002. For the professional development of existing teachers, new contract teachers and *gurujis*, a decision has been taken by the State Government to reserve the seats of D.Ed and B.Ed. courses in Government institutes for them.

d. Learner evaluation

The State Government followed the policy of non-detention till the upper primary level with only the District Board Examinations at the end of the Vth and VIIIth classes. This policy was changed in the academic year 2000-2001 wherein an annual examination had to be cleared for promotion to the higher grade. The new policy of learner evaluation stipulates quarterly tests conducted internally with cumulative credits classifying achievements under grades. Diagnoses of assessment outcomes are expected to be followed up by remedial action. This is to be done at all levels starting from school to JSK, Block, District and State level to evolve clear methods to provide academic support to the school. Difficulties captured through this learner evaluation analysis are expected to enable the teachers to focus on problem areas so that remedial action can be taken at the school level. Periodic external evaluation is planned in order to create a more detailed understanding of factors that promote quality of learning. This is expected to enable the teacher to undertake remedial action for low achievements.

HEADSTART: Improving quality of learning through Computer Enabled Education

Head Start is a programme for Computer enabled education introduced in selected government elementary schools in rural areas. Headstart aims at improving the quality of education by providing CD based Multi Media Rich Lessons (MMRL) for the use of children and teachers based on an analysis of their knowledge base and learning needs. These multi-media rich lessons aim at strengthening learning competencies and expand the knowledge base of students and teachers and develop computer literacy along with it.

The educational software is developed in-house by the Rajiv Gandhi Shiksha Mission based on research into curriculum, materials, teaching learning processes and knowledge levels leading to the identification of concepts that pose difficulties in transaction as well as areas for knowledge enrichment. The challenge is to use technology shift for a paradigm shift in pedagogy, by making it interactive, interrogative, self-learning and discovery through error, enquiry and reasoning. Since Headstart aims at quality improvement, it is not seen as a stand-alone intervention, but an integral part of a total teaching learning process within built-on-line - off-line activities to be evaluated for assessing the quality of learning outcomes.

A syllabus for Head Start has been formulated to guide material development. Educational software on Language, Mathematics and Science has been produced and provided to schools. The distinctive features of Headstart are customised culturally familiar educational software in Hindi, Mathematics, Science and English emphasis on learning through computers whereby computer literacy is an inevitable spin-off and integration with a total teaching learning process. Currently Headstart is located in 648 elementary level government schools that also act a school cluster resource centres (*Jan Shiksha Kendras*) where teachers meet once a month for academic sharing. It is poised to expand to 2070 *Jan Shiksha Kendras* by 2003 and cover the remaining 2000 *Jan Shiksha Kendras* in 2004. 4000 Teachers have been trained on the technical and academic aspects of Headstart. A Headstart unit includes 3 computers, printer, UPS and ancillaries and costs about Rs. 0.14 million.

e. Decentralisation of Academic Support

To strengthen the academic support system, DPEP helped to create a bridge from the school to the academic institutions at the top by establishing 236 Block Resource Centres (now designated Janpad Shiksha Kendra) at the block level, and 4325 Cluster Resource Centres (now designated as Jan Shiksha Kendra) located within primary or middle schools and serving groups of 10-15 schools. The Jan Shiksha Kendra (JSK) has an academic coordinator Jan Shikshak who is a senior teacher. The Jan Shikshak is expected to visit the schools for purposes of academic monitoring and facilitates teacher discussions at monthly JSK meetings. This has made possible the regular supervision of schools, reducing the ratio of supervisors to schools from 1:80 to 1:20. The Jan Shiksha Kendras have the potential to grow as peer support hubs at levels closer to the school context.

f. Restructuring of academic support institutions

Restructuring of academic support institutions has been acknowledged as a key area of concern and the state has initiated review of the academic requirements of key institutions. The state government has recently undertaken professional reorganisation of academic support institutions (SCERT and DIETs) seeking to restructure these institutions on the following premises to create the necessary pre-conditions of quality support.

- Clear delineation of academic criteria comprising of knowledge specialization, academic qualifications, school experience and evidence of professional development for the purpose of staffing.
- Rotational placement between academic support institutions and school to ensure mutual enrichment of theory and practice.
- Emphasis on subject faculty structure to ensure that core curricular inputs are designed and implemented by competent professionals.

While technical and financial support from the state to the district level (DIETs) will continue, district level academic support institution are to be made laterally accountable to districts for management purposes. DIETs will be responsible for the academic planning of their districts, ensuring its implementation and quality assessment.

School Management

School Management has been decentralised to the district and sub district levels. Recognising the need to strengthen the school as a unit, the PTA and the VEC have been given powers to decide on issues that impinge on the daily functioning of the school, such as school timing, local holidays, monitoring the regular functioning of the school. Teachers are now expected to be accountable to the local PTA and the VEC, This is expected to make the school management responsive to the needs of the children.

Emphasis has been given to each school to develop its own development plan with participation of parents. This would then be the basis of the village education plan and upward to get integrated into a District education plan. Teachers are expected to help in developing village education registers to record and track each child's movement through school.

Decentralisation of school management and the policy to make it accountable to the local structures such as PTA, VEC and panchayats is expected to help in enabling school management to orient itself to the educational needs of the children. However, the process of institutionalising these lateral relationships is new and needs to be firmly grounded and strengthened for it to yield expected results that can become effective indicators of the transition of school managed as end –links of a bureaucratic machinery to becoming community schools locally managed with sufficient autonomy, such as is evident in relatively greater measure in the state's Education Guarantee Scheme (EGS) schools. In the EGS schools, the local community chooses the teacher, gets a grant from the state government to run it's school and forms

Modalities of EGS

EGS is a demand-based; time bound strategy to universalise access. It has enabled us in reaching out to the un-reached in quickest possible time. The key elements of the EGS are as follows:

- Under EGS, the government gives guarantee to provide a primary schooling facility to the children in a habitation where there is no such facility within a kilometre within a period of 90 days of receiving a demand for such a facility by the local community.
- Community without a schooling facility within a distance of 1 km and 40 children (25 children in case of ST population) can demand schooling facility.
- Community chooses teacher, provides space and supplements resources.
- Government trains teachers, provides free Teaching-Learning Material and school contingency, academic supervision and seed money for infrastructure.
- Government releases its grant to EGS school account maintained at village level.
- The EGS operates on a decentralised basis through collaboration of the State Government, local bodies and the community. Decentralised management of EGS is done by local Parents Teacher Association.
- The EGS teacher is designated as 'Guruji' and is provided for a group of 40 children and in tribal areas for a group of every 25 children. If the number exceeds 50 then another Guruji can be appointed so as to maintain the teacher-pupil ratio near 1:40.

The academic level and progress of each child is evaluated on a continuous and periodic basis. Continuous evaluation is inbuilt into the teaching learning material and also imparted through teacher training. There is also a provision of Quarterly exams.

a PTA that manages the school completely, academic support coming in from the Jan Shiksha Kendra.

Institutional Restructuring

The management of education has been steadily decentralised both vertically and laterally. Decentralisation has created opportunities for Institutional Restructuring. Prior to decentralisation educational management was characterised by multiple agencies with scant coordination and since decision-making was centralised it actually created multiple sources of authority located on top leading to a situation where directives abounded, but action at the end-point became unconnected, if not conflicting. Decentralisation makes possible coordination and convergence and as this increases the closer one moves towards user-groups, direct participation, and local self-management. Decentralisation because it re-locates powers and functions and necessitates a realignment of structures. In the elementary education sector, substantive powers have been delegated to the panchayats, District Planning body and now to the VEC and PTA. The role of administrative and technical bodies is now seen as being one of laying down broad parameters and norms, facilitating, monitoring, and problem solving and resource-support. With decentralisation transferring powers locally, and allowing flexible planning, co ordination and convergence of structures for ensuring that a common perspective informs all action was perceived as a necessary condition. Accordingly, administrative arrangements for integrating structures have been initiated. At the state level, Elementary and adult education programmes have been brought under one agency designated as the Rajya Shikhsa Kendra that has been created by bringing the Directorate of Adult Education, the state project offices for various projects, and the SCERT together into one common institution. District and block level elementary and adult education structures have been integrated as Zilla Shiksha and Janpad Shiksha Kendras so that the different agencies involved in planning and implementing these programmes come together for coordinated action. The unit for school support that is seen to be the most critical is the school cluster resource centre or the Jan Shiksha Kendra.

Institutional restructuring which is the most critical premise of educational reform is being effected through internal rationalisation of resources and does not require any additional financial support. In fact, it has led to a better utilisation of existing resources.

Key Indicators: Status of Elementary Education

As a result of these strategies, key indicators reflect the following status of the participation of children in schools.

Enrolment in Primary schools

Gross Enrolment Ratio (GER) has risen from 76.5 percent in 1996 to 96.2 percent in 2000-2001. The GER of girls has risen from 70.7 percent in 1996 to 94.3 percent in 2000-2001 clearly indicating that there has been a rise in girls' enrolment. There has been significant increase in GER of ST, which has risen from 78 percent in 1992 to 91.0 percent in 2000-2001. The gap in GER of boys and girls has also narrowed from 25 in 1992 to 10.8 in 1996 to 3.6 in 2000-2001, indicative of the fact that girls' enrolment has increased in the past eight years.

In the State, presently 82.64 lakh children are enrolled at the primary level. Out of these 37.78 lakh are girls, which is 45.7 percent of the total enrolment. The increase in enrolment is a result of a series of mobilisation activities such as Mahila Shiksha Abhiyan, which focused on enrolment of girls,

JAN SHIKSHA ADHINIYAM : An Act for creating public accountability for quality

M.P. *Jan Shiksha Adhiniyam*, 2002 is shaped by the vision of education as a collaborative process of the teachers, learners and the local community and the role of the government as facilitating this process towards the twin goals of equity and quality. The Act recognises the right of every child to basic education and seeks to remove impediments to access and participation in schools both by improving delivery as well as by creating social pressure. Parental responsibility for compulsory education upto age 14 is enforceable by *Gram Sabha*. Strengthening decentralisation, the Act lays down clearly the roles and responsibilities of key agencies : parents, teachers, local bodies and government. A crucial role is assigned to the PTA to be set up for every school.

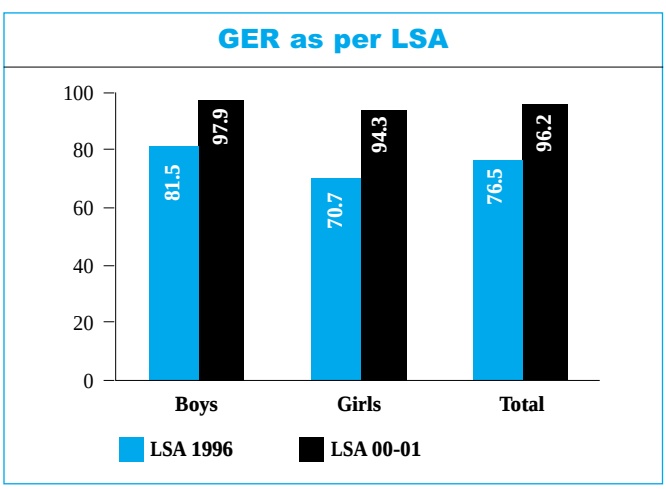
The aim is to foster processes that help school emerge as a strong unit accountable to the local community of parents, with all other structures performing the role of school support institutions. Perceiving academic and administrative functions as constitutive of educational management, structural convergence has been effected at all levels of support institution for enabling holistic planning for qualitative learning outcomes.

Human resource support has been enlisted at school-level through voluntary teachers (retired) or Shiksha Bandhu. Incentive framework for teachers and students has been stipulated. Teachers are not to be normally deployed for non-teaching tasks. Private Sector has been encouraged. No prior permission required to open schools upto middle level.

To make planning responsive to the local educational needs, a *jan shiksha yojana* emanating from the PTA level is envisaged. Educational funds at the school, district and state level designated as *shala*, *zilla* and *Rajya Shiksha Kosh* are to be set up for enabling mobilisation of additional resources. Public education Report (*Jan Shiksha Prativedan*) will be presented on the status of education, specially learning outcomes, every quarter to the PTA and to the District Government and annually to the legislative assembly, constituency wise. These reports are expected to feed back into the *jan shiksha yojanas* for incremental improvement; thereby creating an organic relationship between planning and evaluation, placing their outcomes in public space for reinforcing people's right and the state's responsibility for better quality education.

especially SC and ST girls. These resulted in the additional enrolment of approximately 14 lakh girls. The opening of EGS in areas, which were deprived of education facility, also resulted in enrolment of children, who otherwise were not enrolled in schools or were not regular in attending school because of long distances. There are 12.2 lakh children enrolled in EGS schools, out of these 5.7 lakh are girls which is 47 percent of the total children enrolled in EGS schools. Similarly the number of tribal children enrolled in EGS schools is 5.4 lakh, which is 45 percent of the total children enrolled in EGS schools.

District wise details of target population, enrolment and GER at primary level are given at *Annexure–4.*



Source: Lok Sampark Abhiyan I and II, Rajiv Gandhi Shiksha Mission, Government of Madhya Pradesh

Table 2

GER as per LSA 1996			GER as per LSA 2000-2001		
Boys	Girls	Total	Boys	Girls	Total
81.5	70.7	76.5	97.9	94.3	96.2

Source: LSA 1996 and LSA 2000-2001

Enrolment in upper primary schools

The GER at upper primary level is 70.3. The enrolment at upper primary level is 23.14 lakhs, out of which 9.18 lakhs are girls. District wise details are given at *Annexure-5.*

Retention

Even while enrolments have improved the problem of retention persists. About 70 percent children survive till the primary cycle, 50 percent survive the upper primary cycle and only 40 percent the higher secondary. Although the transition rate from primary to upper primary level is 97 percent, only 50 percent of them complete the upper primary level. Girls are the biggest casualty. Proximity of the middle school is an important factor. It is hoped that with the universalisation of the middle school, completion of the upper primary cycle will improve.

Out- of -school Children

District data captured in the habitation wise household contact surveys in 1996 and 2000 show that the percentage of Out- of- school Children against the target population has decreased from 29.3 percent in 1996 to 11.2 percent in 2000-2001.

Table 3

	Out -of -school children against target population LSA-I (1996)			Out -of -school children against target population LSA-II (2000-2001)		
	Boys	Girls	Total	Boys	Girls	Total
In percentage	24.4	35.2	29.3	9.4	13.3	11.2
In lakhs	13.15	16.04	29.19	6.05	7.23	13.28

Source: LSA 1996 and LSA 2000-2001

- Out-of-school Children in age group of 6–14 years are 13.28 lakh, which is 11.2 percent of the target population. *Annexure-6*
- Out-of-school children comprise of the never enrolled and dropout children. Of the total out-of-school children, the never-enrolled children are 70.7 percent of the total Out-of-school children & drop-out children are 29.3 percent of the total out-of-school children
- Dropouts at primary level are 2.81 lakh, whereas at middle level it is 1.08 lakh.
- Out-of-school girls are 7.2 lakh, which is 54.5 percent of the total out-of-school children.
- Never-enrolled children are 9.4 lakh; out of which 5.2 lakh are girls, which is 55.3 percent of the total never-enrolled children.
- Dropout children are 3.88 lakh; out of which 2.04 lakh are girls, which is 52.6 percent of the total dropout children. Broad reasons for children being out of school, either as never enrolled or drop out are as follows:
- About 80 percent girls remain out of school due to the following five reasons i.e. sibling care (24.6 percent), engaged in economic activities (18.5 percent), cattle grazing (13.6 percent), weak financial condition (13.6 percent) and migration (9.3 percent).
- About 86 percent boys remain out of school due to the following five reasons i.e. engaged in economic activities (21.6 percent), cattle grazing (22.4 percent), sibling care (15.6 percent), migration (11.5 percent) and weak financial condition (14.4 percent).
- Other factors responsible for children being out of school

are social belief and parental reluctance to send children to school, especially girls, lack of upper primary educational facilities (8.0 percent), prolonged illness or handicap (2.4 percent) and school environment not conducive (1.6 percent).

- Social belief and parental attitude is responsible for a higher girls' out of school (8.24 percent) in comparison to boys (3.1 percent). Similarly, migration affects the boys (11.5 percent) in comparison to girls (9.3 percent)

It is evident from the data above that having achieved the goal of providing access to primary education facility, the problem of out of school children still persists. This is more acute for the upper primary level. The upper primary data shows that gross enrolment ratios are low. It is expected that the opening of middle schools in close habitations will improve the transition rate from primary to upper primary. These cases require specific attention for effective interventions. It is evident that the major reasons for children being out of school whether as never enrolled or drop out across both genders are economic (75 percent). Some schooling incentives are being provided to meet the cost of some factors affecting school participation. Incentives like book-banks, free educational materials, uniforms are being provided focusing on SC/ST children and girls of economically backward families etc. subject to resources Community mobilization and making the school flexible in its operation have proved effective for increasing enrolment. Largely, however economic, health and cultural factors are exogenous to the education sector and require convergence inputs from sectors that deal with livelihood issues. Health reasons too are exogenous to the education sector and require clear targeting of health programmes.

Learner Achievement

Sample studies have been used to indicate trends in learning achievement levels.

NCERT designed tests were conducted on a sample basis in 950 schools in 19 DPEP districts between the years 1995 to 2000 for the primary level. These were the base, middle and terminal assessment test (BAS, MAS and TAS). These indicate a progression from mean achievement levels over a period of 5-6 years. From 1995 onwards; the mean achievement scores in Language moved from 46.04 percent to 75.75 percent for class I and from 31.75 percent to 60.31 percent for class IV and for Math from 40.39 percent to 76.04 percent for class I from 27.84 percent to 52.12 percent for class IV in phase I districts (from BAS to TAS). What the NCERT study shows is that while there has been a positive trend towards improvement. Nevertheless, it is a matter of concern that the achievement in mathematics by the time the child reaches class five is not more than 50 percent, and not more than 60 percent for language, creating a situation where the child would move onto upper primary with competence over only half the curriculum.

Baseline and Midterm assessment survey was conducted in 15 DPEP II districts in 1997 & 2000 respectively. These surveys indicate a progression from mean achievement levels over a period of 3 years. From 1997 onwards; the mean achievement scores in Language moved from 38.76 percent to 54.95 percent for class I and from 31.99 percent to 43.05 percent for class IV and for Mathematics from 34.09 percent to 62.07 percent for class I from 26.65 percent to 35.78 percent for class IV in phase II districts (from BAS to MAS).

Factors responsible for unsatisfactory academic achievements can be identified as being both academic and non academic. Among the non-academic factors the commonest is the absence of the teacher from the classroom mainly on non-teaching tasks, which affects the time on transaction and completion of the course. It has also emerged that a large number of children do not have textbooks. Although the state has a commitment to provide free textbooks the resources required to support this do not match the need. Among the academic factors attention needs to be given to deploying qualified teachers for appropriate tasks, the professional development of teachers, improving class room processes and learner evaluation systems and academic supervision.

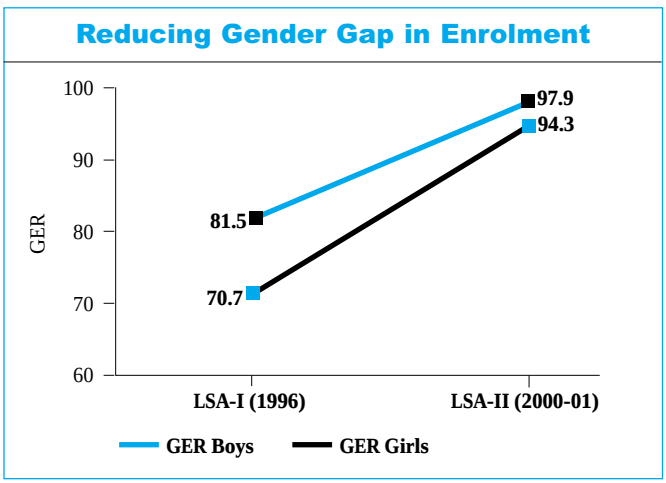
Equity

The issue of equity is central to education both because the delivery of education should target the disadvantaged group traditionally deprived of the opportunities of education, and because education is understood as a process of empowerment. This involves a distributive aspects and a qualitative one. The distributive aspects, in terms of the spread of resources, have been measured through indicators of access and participation. Primary schools have been established within a k.m. of each habitation, with more than 50 percent of the EGS schools coming up in tribal areas. This universal spread of primary education gives every child the opportunity to access basic education. In addition there has been an improvement in the share of girls' participation in schools and the gender gap in children in and out of school has reduced. The number of girls out of school has been reduced from 35.2 percent in 1996 to 13.3 percent in 2001. Table 3 shows the reduction in the difference between out of school girls and boys from 11 to 4 percent. The Table 4 also shows the reduction in the difference between girls and boys in terms of enrolment.

Reducing Gender Gap in Enrolment (LSA-I(1996) and LSAII (2000-01)

Indicators for measuring equity in participation are captured in *Annexure-9*

Sample studies undertaken by IIM Lucknow, on the behest of GOI also indicates the positive trend of equity indicators.



Source: Lok Sampark Abhiyan I and II, Rajiv Gandhi Shiksha Mission, Government of Madhya Pradesh

Table 4

	LSA-I (1996)	LSA-II (2000-01)
GER Boys	81.5	97.9
GER Girls	70.7	94.3

Source: LSA 1996 and LSA 2000-2001

In terms of quality sample data of periodic tests (BAS/ MAS/ TAS) tests show that the percentage increase in the achievement levels of girls and boys is almost on par. *Annexure-10*

KEY EDUCATIONAL INDICATORS ARE CAPTURED IN THE TABLE BELOW

Educational Indicators (2000-2001)

	Male	Female	Total
Literacy Rate 2001	76.80	50.28	64.11
Gross Acess Ratio (GAR) Primary		100%	
	Boys	**Girls**	**Total**
Gross Enrolment Ratio (GER) Primary	97.9	94.3	96.2
Gross Enrolment Ratio (GER) Middle	74.6	64.6	70.3
Retention Rate (RR) Primary	91.6	85.8	88.9
Drop-out Rate Primary	8.4	14.2	11.1
Grade Completion Rate Class I-V (GCR) Primary	65.2	58.0	62.0

Source: Lok Sampark Abhiyan and DISE Data

KEY CHANGES IN THE STATE'S EDUCATIONAL PERSPECTIVE

One could attempt to assess the performance of the state and the tasks ahead for it, based on the kind of policies, and information discussed above. The state has succeeded in establishing a decentralised management of education, especially primary education right up to the village level. The focus is now on empowering the school as a unit. Issues of decentralising academic support to schools have acquired significance and structures for academic decentralisation have been created. It should now be possible to address a holistic agenda for making the school effective for quality education because of decentralisation. Key issues of quality now are getting positioned centrally. Planning now has a large database rooted at the habitation level. The issue of primary education has been lodged in a regime of rights. Rights themselves have been seen as civil society covenants not just as legalistic provisions, making the whole issue of universal education a pragmatic commitment moving towards the fulfilment of a normative vision. The understanding of community participation has deepened and this has expressed itself in different institutional forms moving from elected representative structures of the panchayat type to VEC, to collaborative structures as PTAs, to direct community participation institutions as the Gram Sabha and this has expressed itself significantly for education. This understanding of community has also influenced the perception of resources as meaning not just financial but human resources possibilities for innovative action on a large scale.

TASKS AHEAD

With the outreach of primary schools being universalised and that of upper primary also being universalised, the key agenda for the state is to focus on (a) special efforts to bring out-of-school children within the fold of education. b) improving retention completion and transition with special focus on equity. c) improving achievement levels.

This really implies a very comprehensive agenda for quality reform. The broad strategy for this would be underpinned by (a) strengthening organic bonds between the school and the community by enhancing school accountability to the local community and ownership and support to the school by the community, (b) improving academic inputs through decentralised institutional reform, content enrichment, evaluation reform and capacity development, (c) capacity development of educational management personnel by reorienting towards school as unit, retraining on working with community, professional development of necessary skills, like information analysis, planning and monitoring, problem solving and remedial action.

Thus, the challenges that MP has are improving the quality of education, bringing back the still out of school children to school, and improving retention in the whole school cycle.

Focus on children-out-of school

A clear focus is now required on out of school children i.e. the never enrolled and drop out categories. District specific data is now available with the districts for decentralised planning for child specific targeting at the local level. These districts require special focus. However, an interesting feature is that the out of school factors are more or less similar in all districts in their

character and relative significance when viewed at the district level. This suggests that variations of critical significance would occur not only at the inter district level or regional level, but actually substantively at sub district levels, possible in pockets or among specific social or economic groups. This indicates the need for further decentralisation of planning below the district to the habitation/ village/ gram panchayat and school cluster levels where child-specific, family-focused targeting is possible. The newly instituted gram swaraj provides the framework for such habitation specific planning. In this context setting up Parent Teacher Associations (PTAs) and mobilising PTA and VECs through capacity development programmes and control of resources as well as decision-making could be a major strategy for child wise tracking. The PTA would also have the power to determine school timings and holidays in order to make school responsible to be local cultural and livelihood requirements. The PTA would be encouraged to raise resources locally so that child specific interventions can be given to out-of-school children.

Decentralisation and community control over development processes makes possible inter sectoral convergence needed to address, health and socio-cultural factors effecting children's schooling. Decentralisation can facilitate convergence to ensure health services for all the children. Moving toward decentralised management for Health care, the State Government has launched a scheme called Swasth Jeevan Sewa Guarantee Yojna. The scheme aims at improving the status of rural health care by ensuring the provision of basic determinants of health: safe drinking water supply, sanitation, nutrition, immunization, ante-natal care, training of the local health workers. Convergence with this scheme would enable better targeting of better health enabling services for children. Mid day meals could prove to be an effective incentive especially for children belonging to families of low economic status of the effective use of MDM gets monitored by PTA and for ensuring its timely distribution to the children. Convergence can also be sought of programmes of women empowerment. Convergence with programmes of self-help groups to some extent would also help in addressing economic reasons influencing enrolment and attendance.

The main challenge for MP is the education of the poor children. Despite the universalisation of access, and increase in the provisioning of infrastructure and teachers, the problem of retention, substantial reduction of drop out and improved learning levels for all children remains. In rural government schools there are clear indications that poverty has a negative effect on all key educational indicators. Empirical observations and the data available shows that among the first generation learners, children with low health and nutrition levels, or who support the family tend to be the ones whose attendance therefore is irregular, and whose participation in school processes tends to be conspicuously inhibited and slow. The education of poor children requires pedagogic innovations, flexible academic structures for schools, and teachers with a strong empathic commitment to working patiently and perseveringly. Since the school is a social institution, besides free text books, free uniforms, and a mid day meal would help encouraging the participation of poor children.

The issue of out of school children needs to be seen not only as a back to school programme but is intimately linked with the retention of children in the completion of a whole school cycle. Completing school with a school certificate besides allowing transition to higher education gives a definite advantage in the employment market and in opting for other avenues of skill acquisition. Therefore, one of the factors that hold attraction is the prospect of a school completion certificate, and this needs to be made to appear possible for all. The challenge here is double fold: Retain the children in school at the primary level to complete the whole school cycle, and to enroll and retain the over-age children who are late starters to complete the whole school cycle. The implications of this involve a wide range of action. First, attention to the whole school cycle would have to be given, and universalisation of elementary education would have to be seen not as an end in itself, but as creating the prerequisite condition for it. Thus, while prioritising primary and elementary stages may have a justification both as historical beginning points and in resources, nevertheless as the state works on the elementary stage, it would be manifestly evident that not looking at the whole school cycle would mean the persistence of basic problems of low social motivation specially among the poorer classes to take the steady schooling of their children seriously. In the social perception it is the whole school that has value, not an interim stage in it. Therefore, even while the state is planning universal elementary education, it has to start addressing the issue of high school access in a way that makes the opportunity of school completion a possibility for all.

For overage children, especially overage girls, on the adolescence threshold, special methods would have to be thought of to facilitate their enrolling and transiting through to complete the school cycle. This will require the development of materials and methods that facilitate swifter paced transition by the overage late entrants to the school and helps them complete their school cycle in a shorter duration. A feasible approach here would be to tap the potential of the state open school and to develop systems of Equivalence. This would benefit the fifteen plus youth that enlists in the adult education programmes, as well. As the state expands its reach, the hard to reach groups tend to become increasingly more visible, and the need to strengthen the open school and equivalence systems becomes increasingly more central in view of the fact that the gap in the literacy base would remain unless opportunities for completing a full school cycle are restored to this group that has missed the right age for enlisting in school.

Improving the quality of learning at the primary level

Returning children to school with the objective of enabling them to acquire education of satisfactory quality demands an in depth and comprehensive agenda of quality reform. Improving quality of education needs focus on institutional reform, better classroom processes, need-based teacher education programmes, curriculum and evaluation reform and emphasizing processes of lateral accountability and improving educational quantities.

Enriching the quality of classroom process

A challenge common to all schools is the different levels of abilities among children and often in the same child in either different subjects or different times depending on the quality of his participation. Madhya Pradesh was able to evolve a range of pedagogic practices that highlight the possibility of making class room processes more meaningful through organizational strategies that balance flexible groups and normative grades. These can help respond to. This requires both continuous teachers training, development of appropriate TLM to diversify the linearity of the text and most significantly, policy support to flexible school structuring principles. While these pedagogic methods are important for all good schooling, they are most critically needed for contexts of first generation learners or mixed age, mixed ability heterogeneous groups characteristic of chronically deprived areas and communities. The state need to build upon its nascent insights and experience of these pedagogies of learning focussed on multiple levels. The use of IT has been viewed as a potential medium for pedagogic transformation, creating ground for interrogation, choice, self-learning. It should be continued in this direction with greater integration with classroom process, expansion of the horizon of knowledge, and greater stimulation to self-learning.

Strengthening teacher education

Assessment of learning levels at the primary and upper primary both indicate the need to focus on the development of foundational competencies in Mathematics, Language and Science. There is a need to develop teacher capability both through the induction and in-service training programmes of teachers. Special emphasis will therefore have to be placed on improving teacher capability in transacting Mathematics and Science curriculum. This should be done through need-based programmes focusing on specific content and pedagogical areas. The process of using distance education, computer enabled education and school libraries as Alternative Learning Sources (ALS) for teacher and students development should be further supported and expanded. Distance learning programmes need to be continued.

Improving learner evaluation processes

It needs to be ensured that learner evaluation will be not just a test of basic text based competencies but also a process of appraising the quality of teacher-pupil interactions and the overall cognitive development of the learners, handlings the individual differences positively. A balance has to be maintained between individualism issues and normative standardisation, which will also help keep evaluation from becoming threatening. Lateral accountability of the school to the local community for learning outcomes needs to be clearly established to elicit parental support for improving the quality of learning. The results of quarterly evaluation need to be shared with the VEC and PTA at the village level successively to the Panchayats and District Planning Committee to ensure regular monitoring of learner achievement by them.

Maintaining an efficient Teacher-Pupil Ratio

Provision of additional teachers both at the primary and upper primary levels in order to maintain the TPR at 1: 40 on the basis of rationalisation and reallocation, to improve the quality of classroom transactions. An efficient TPR is necessary for effective teaching learning processes. The current situation on multi grade teaching is very clearly contra indicative to quality transactions. Inadequate attention to evaluation, failure to undertake diagnostic and remedial action, negligence even in simple routine tasks like completion of textbook based exercise can be clearly traced to high TPR multi grade situation, wherein teachers do not have enough time to focus on child specific tasks. As a consequence, the result of multi grade teaching or large class sizes is the un-noticed perpetuation of errors militating against all inputs into mastery level competencies, it is evident that while an efficient TPR is the principle condition of quality teaching learning, nevertheless, it is also equally susceptible to availability of resources. Efforts should be made to move towards a more efficient TPR beyond a 2 teacher per school primary norm and 3 teachers per school upper primary norm on the basis of a realistic assessment of students' attendance patterns and teacher availability and specific academic requirement especially at the upper primary levels. A current estimate of additional teachers is based on the current estimate of TPR. School specific TPR can be improved through teacher reallocation, but if the average TPR has to be brought to 1:40, then additional teachers will be needed.

Striving for a holistic view of quality

The issue of quality is often limited to academic inputs and outcomes. Thus, there has been a demand for B.Ed/ D.Ed/in service trainings and a great emphasis on text book revision. What has been difficult to explain has been a widely prevalent situation where teachers with desired professional qualifications, and refresher trainings and improved text books and pedagogies still do not generate effective teaching learning processes and the desired results. The inadequacy of a pre determined criteria of academic inputs seen in isolation from other historical contingencies becomes glaringly obvious in such commonly prevalent cases of quality default. A number

of studies conducted show that apart from a prescribed qualification criteria, intangible attributes like empathy and sense of responsibility are necessary for a teacher to perform effectively, and that without these, even highly qualified teachers do not teach even by minimal standards of satisfactory transaction. Yet these are rarely factored in the way the teacher has to be recruited, or trained or even assessed and these pose a challenge for designing a criteria for the teacher's professional development. Issues of teacher empathy with the students coupled with clearly defined accountability of the teacher to the parents whose wards are in his charge become very significant in a state like Madhya Pradesh where the children whose education really poses a challenge to the state are from economically deprived families.

Issues of accountability, incentives or the effect of general levels of social awareness offer themselves for consideration. One of the realizations in the process of decentralised management is the need to look at the whole context for understanding quality. The context would imply the school and its academic inputs and their relationship with each other, the school and management practices and policies that define it and would also imply the school and its relationship with the social community within which it functions. Quality then would have cognitive, infrastructural, managerial and social dimensions and would derive from the relational nature of these dimensions. This understanding has determined the way in which issues of quality are being sought to address. One effect of this whole context perspective is that it places the issue of curriculum reform within the larger frame of educational reform. This alters the conventional way of posing questions on quality that start with just the academic inputs, assuming that the other factors are administrative or 'physical' or pertain to the community and outside the core issues of academics that actually determines quality. A holistic approach to educational reform on the other hand recognizes the need to transform the context in which the text has to be transacted. The present level of quality in the state then is the result of the present relationship between the academic, and social factors and the institutions of political democracy.

Thus, the state has planned for an intensive training of all the teachers, and curriculum review, and strengthening teacher education and academic support institutions. This is accompanied by a commitment to establishing social accountability of the school. The Jan Shiksha Adhiniyam aims at creating processes towards social accountability for quality. For this the PTA and the VEC are seen as key institutional arrangements. The People's Education Report to be instituted annually is expected to make the Government accountable for quality. The empowerment of democratic institutions and processes for creating accountability of school performance is expected to give a critical edge to the issue of quality. Empowerment here implies both the creation of structures and focused efforts to develop capacity. This is why the state has given serious attention to the adult education programme, through its Padhna Badhna Andolan and its Padhna Badhna Sanghs that are in the making to consolidate and institutionalize the energies and build capabilities of such sections of the community who depend on the public education system. The objective here is to continuously increase the capacity of the community to create as well as to demand better services for themselves. Finally, since quality is seen to be a relational process of multiple factors, the approach towards improving quality emphasizes an intensive broad based participatory research strategy that does not abstract single strands for study like academics, or community or management, but strives for a holistic perspective. Such an approach also rejects the notion of quality as only a technical, supply side issue and sees it evolving through a dialogic process of all participants. This conceptual analysis of quality provides the framework of action presently initiated by the state for educational reform. Such action is at a very nascent stage and would have to be sustained through careful planning and evaluation in the time to come.

Improving physical infrastructure

Physical infrastructure in schools will be improved through the provision of buildings, additional classrooms, toilets and drinking water facilities. Currently, there is a gap of 23387 primary school buildings, 36668 additional rooms, 6287 schools require major repairs and 9426 schools require minor repairs. District-wise details of infrastructure gaps are given at Annexure-3(i), (ii), (iii). Convergence of resources is being planned to mobilise support for filling in infrastructure gaps.

Improving School Management through decentralisation and capacity development

The complex nature of UEE demands that the greatest attention be paid to the process of planning and implementation, institutional reform, and convergence of resources. Again, in view of the complexity of the problem, decentralisation will have to be the key defining principle of the educational planning and management. Decentralisation has been a key strategy for improving school quality by making management accountable to stake holders. The effort is to establish school as a unit responsive to the learning needs of the children and the educational aspirations of the community. The process of decentralisation of educational management has culminated with the establishment of PTAs and VECs as statutory institutions devolving power on the community to control the local schools as well as to support it in its basic requirements. Similarly the process of academic decentralisation has been initiated with the establishment of Cluster Resource Centres (Jan Shiksha Kendras). Attention needs to be given to strategies for strengthening these decentralised institutions through internal restructuring along with professional capacity development. Formation of decentralised management structures right upto the grass root level has an implication for the need

of capacity building at all levels. Capacity development and strengthening infrastructure support to these decentralised integrated units is needed to enable them to function effectively. All VECs/PTAs will be oriented towards their school management roles. The training focus will be on the role of VEC/PTA in micro planning and implementation of Village Education Plans, effective use of school contingency, monitoring, progress of children in schools.

EQUITY: IMPROVING EDUCATIONAL OPPORTUNITIES FOR SPECIAL FOCUS GROUPS : GIRLS, SC, ST

Gaps in girls' participation at the primary and upper primary levels have been assessed and collected. Also the census data of 2001 clearly indicates the district, which requires special attention because their literacy status is below that of the State average and the female literacy rate is also very low. A clear problem area is the education of girls in the age group 11 upwards, who have never enrolled in schools. They need specially designed and planned education programmes to enable them to enlist and complete their education. Making the school timings and holidays flexible makes the school more inclusive and while the power to do so has been vested in the PTA, it needs to be consciously and sensitively emphasized and ensured. Non-grade, group based pedagogic practices, bridge-materials in a self learning mode allowing transition and completion at learner pace would enormously increase the chances of these children who tend to form the bulk of the vulnerable category of drop out or never enrolled. The open schooling system which is essentially a system for flexible learning reaching out to learners regardless of their age needs to be remoulded to serve this purpose. Efforts need to be made to encourage women to enlist as teachers especially at the upper primary level. Provision of separate urinals for girls is also expected to have a positive impact on girls' retention both at the primary and upper primary level. Social mobilisation and convergence with programmes of women's empowerment and especially with Continuing Education programmes will prove to be effective. Appropriate incentives such as scholarships, uniforms, free teaching learning material need to be designed to target needy children of special focus groups.

In Summary, the action ahead has to take the following issues into consideration:

- Provision of appropriate infrastructure facilities to schools.
- Focusing on strengthening institutional management processes and strengthening the use of information for planning and management
- Strengthening decentralised management through capacity development
- Strengthening community participation especially through institutional means such as the PTA and the VEC.
- Sustaining the new impetus towards restructuring academic support systems on principles of professional calibre, school experience as participatory forum of teacher development and motivation, especially at the level of the Jan Shiksha Kendra.
- Adopting a more developmental approach to teacher training, and creating professional incentives for teachers to upgrade their knowledge and skills.
- Ensuring that the curriculum both respects local knowledge and culture and adds wider dimensions of understanding and accordingly effect improvement in content.
- Establishing a reliable system of learner assessment.
- Develop appropriate incentives for learners mainly of special focus groups
- These measures have been initiated. They need to be sustained and strengthened in the light of experiences and in the interest of learners.

The key theme is to continue decentralising management and academic support to schools so as to redefine the school from its inherited identity as the lowest level appendage to large bureaucratic machinery to school as empowered and autonomous unit.

RESOURCES

Resources required for UEE have to be estimated first on a needs basis. The extent to which the resource gaps are met, will be subject to the availability of resources under different programmes. Therefore resource-based estimates also need to be drawn up. The state has drawn up Education for All (EFA) plans projecting needs, proposing strategies and estimating resources for both elementary and adult education. The EFA plans estimate approximately 8,500 crores will be required for fulfilling all the needs and providing free elementary education to children. A major programme for planning and mobilizing resources for implementing the elementary education strategies is Sarva Shiksha Abhiyan (SSA).

A significant strength of the planning emerging in the state is that it seeks convergence of schemes. SSA is an effective vehicle for this convergence. This internal convergence of educational schemes and resources will itself enable comprehensive planning with optimum utilisation of resources. The state expects all 45 districts will be covered under the SSA. Perspective plans for a five-year period have been submitted to the Government of India. 12 have already been sanctioned. The process of upgrading DPEP into SSA in the remaining districts is in process and it is expected that by end- 2002 all DPEP districts would move into the SSA mode. This will mobilise additional resources for universalising elementary education.

However, it needs to be mentioned quite clearly that resources through specific programmes are additional. The main share of finances come from the state's own support resources. The state has therefore to seriously review and reformulate its own financial investments in the education

sector to optimise their benefits. Some options that the state has are:

Reducing administrative expenditure at state level institutions

This is long pending since decentralisation really does allow a thinning down of top-level structures because their powers and functions have been devolved. This is needed not just for cutting out redundant financial expenditure, but most urgently for liberating the new empowered decentralised arrangements from the hegemonic with then influence of top structures with their historically inherited authoritarian cultures.

This would also imply administrative efficiency. As an interim measure, state level personal could be allocated at district and sub district levels where work functions would tend to acquire a greater responsibility because of greater autonomy. Over a period of time administrative overheads should be rationalized to liberate more resources for programmes. Secondly, there is a need to closely scrutinise and understand choices on the basis of a cost - benefit analysis, to adjudge cost effective inputs.

The state has been wresting with the problems inherent in universalisation: needs versus resources, commitment to universalisation and concern for quality, time- bound action and the necessity of resource-based, phased planning, standardization of norms and pervasive differences and disparities. Looking to the different types of teachers schools and related incentive systems it could decide upon the most cost effective inputs. Setting performing norms itself can ensure effective returns on current investment without incurring additional expenditure. This could imply for example, setting eligibility criteria for the placement of personnel and teachers and according to the needs of the institution and performance norms as incentives or disincentives. Capacity development would enable optimising the impact of available resources by improving internal efficiency. This would include retraining in newer skill requirements, structural reorganization and integration on the principles of decentralisation would reduce stagnation and wastage on top and encourage accountability at school/closer to school levels. Convergence of programmes on a comprehensive intra and inter-sectoral needs will reduce duplicate/parallel efforts and costs. Empowering communities is the most effective the most cost-effective way of meeting the complex challenges of education. Ownership can help improve the school even with limited resources in a partnership framework, which the Madhya Pradesh government has been pursuing. Finally it would help to look at the school as an evolving process balancing a pragmatic strategy and normative frame.

Creating a legal frame for educational reform

The state government has formulated a legal frame for consolidating and promoting the initiatives for educational reform through its Jan Shiksha Adhiniyam-which seeks to strengthen the institutional partnership between the Government, the local bodies and the community in the task of universal elementary and adult education. The Act has been passed by the state Assembly for implementation in the State.

Adult Education

Adult Education has been an area of key concern, both because basic literacy to all is a commitment of the state, and because there is a clear reciprocity between the educational status of children and the adult community. The key strategy for this in Madhya Pradesh in the first half of the decade of the 90s was the Total Literacy Campaign (TLC) sponsored by the Central Government. Under this all the districts in Madhya Pradesh implemented the Total Literacy Campaign (TLC). 54.10 lakh were made literate over 9 years. But by mid-90s there was a need to review the TLC strategy.

The major change made against the movement for total literacy was that it is unable to excite the adult community whose children did not go to school because they lacked the facility. That was what led observers to lament the literacy campaign as an effort to mop the floor with the tap open. The synergies in the relationship between the efforts for universal primary education and mass literacy needed to be realized.

The primary education base supported action for adult education. EGS through its wild fire spread took the message of education for all into all habitation in Madhya Pradesh so that when subsequently the Padhna Badhna Andolan was started for literacy in late 1999 there was a torchbearer for education in each habitation and a community that had participated in creating a learning environment for their children.

Padhna Badhna Andolan (PBA) was Madhya Pradesh's programme to revitalise the literacy movement in the state. PBA differentiated itself from the prior literacy strategy of the National Literacy Mission (NLM) (the Literacy Mission of the Central government) by emphasising collectivity, demand, local choice and incentive to the literacy volunteer. The programme undertaken for a year in 2000 had the following key elements.

- Non-literates would come together as *Padhna Badhna Samitis*
- They would chose local educated person to be their teacher (*Guruji*)
- They would register at the nearest Panchayat or *Jan Shiksha Kendra* (Cluster Resource Centre) their names and that of the proposed *Guruji*
- Government would verify the status as being non-literate provide the *Guruji* training and teaching-learning material.
- Three basic literacy primers of the NLM would be transacted.
- In addition to the 3 literacy Primers of NLM, a fourth Primer (*Choutha* Primer) was developed by the Rajiv

Gandhi Mission on Rights (land rights, gender rights, forest rights, labour rights, development rights etc). The idea was that as the PBA Samiti transacts the Fourth Primer it repositions itself as a Self-Help Group and then a thrift and credit society.

- The Government would monitor hand hold and undertake a 100 percent external evaluation of the learners.
- Based on the number of people who cleared the examination the *Guruji* would be given a *Gurudakshina* of Rs 100 per learner to which the community was also free to add.

So if a *Guruji* made 20 people literate he/she would get Rs.2000 as *Gurudakshina* from the people he has taught. This money was made available by reducing other costs on supervision, having full-time literacy employees etc. It would be in order here to compare the physical achievement as well as costs under the two strategies of National Literacy Mission's Total Literacy Campaign and Madhya Pradesh's *Padhna Badhna Andolan*.

The hypothetical Rs. 65 per learner of the National Literacy Mission's Total Literacy Campaign becomes almost Rs. 230 because of protraction yet had no incentive for the teacher. In the case of the Padhna Badhna Andolan, out of the Rs.150. 25 per learner cost, Rs 100 per learner has been the component of the Gurudakhshina. Interestingly post-evaluation encounters showed that the incentivisation was responsible for the wide popular involvement of unemployed educated youth as Gurujis as they went through the campaign, the moral charges of leadership was a far greater incentive than the money given as Gurudakshina.

Table 5

Strategy	Target	Achievement	Duration	Per Learner Cost
Total Literacy Campaign	125 lakhs	54.10 lakhs	9 years (1990-1999)	Rs. 229.55
Padhna Badhna Andolan	51.83 lakhs	29.85 lakhs	1 year (Dec 1999-Dec 2000)	Rs. 150.25

Source: Rajiv Gandhi Shiksha Mission, Government of Madhya Pradesh, Bhopal

Padhna Badhna Andolan was crafted to revitalise the literacy movement in the state. The response was phenomenal as over 2,17,000 *Padhna Badhna Samiti*s enrolling 5.18 million came up. There was no restriction on who could be a Guruji and even grassroots level functionaries like Gurujis of EGS schools, erstwhile TLC volunteers could also become Gurujis of the Padhna Badhna Andolan. The final evaluation was scheduled between 7-9 December and out of the 51.83 lakh people enrolled 32 lakh had completed the Third Primer (another 19.41 lakh had completed the second Primer) and took the examination. 29.85 lakh cleared the examination which was conducted openly with invitations advertised in newspapers requesting the public to witness the event. Results of external evaluation by expert panel approved by NLM are close to those of the 100 percent state level evaluations corroborating the results of this one-year campaign.

Of the samitis,

The Rajiv Gandhi Shiksha Mission had also invited the evaluation teams of the NLM to this event and their findings corroborated the results of this one-year campaign, which was finally vindicated when the Census results were announced. 57000 Padhna Badhna Samitis have repositioned, as Self-Help groups with savings of Rs. 4 crore and over 70% of these are groups of women..

Literacy in Madhya Pradesh

The sections above have discussed the issues and parameters of education, and of the efforts at achieving and ensuring universal elementary education. The last seven to eight years have witnessed sustained action towards educating people in the state, making children and adults literate, bringing children to school and ensuring that they remain there, and that they receives quality and useful education. It is extremely difficult to be able to measure or assess progress of level of development of people in education. The only universally acceptable and appropriate measure is literacy, although that itself does not really tell us about the depth and quality of education levels of people. Nevertheless, it is an indicator that shows the current spread and reach of basic ability in education and perhaps also shows the expanding and deepening education in people.

The Census of 2001, gives us figures of literacy that enable us to make some assessment of the impact of all these efforts on education levels of people in the state, especially when we compare the literacy levels from previous census data.

Madhya Pradesh has recorded an unprecedented jump of 20 percent in literacy in the period of the nineties as reported in Census 2001. The work in the nineties was in the combined State of the then Madhya Pradesh that included the new State of Chhattisgarh. Taken together there has been a rise of 20.45 percent in the decade of 1991-2001 in literacy in Madhya Pradesh. The key features are :

- Undivided Madhya Pradesh records the highest decadal growth in the period of the nineties. As against a 10 percent growth in the decade of the eighties in the state, over 20 percent growth is recorded in the nineties. As far as the new state of Madhya Pradesh is concerned, there was a rise of 19.4 percent.
- The growth in Madhya Pradesh in literacy far exceeds national growth rate in comparative terms. In fact the growth rate is more than double of the national growth

rate. At the national level literacy rate grew from 8.64 percent in the eighties to 13.17 percent in the nineties indicating a decadal increase growth rate of only 4.53 percent whereas in Madhya Pradesh, literacy grew from 10.4 percent in the decade of the eighties to 20.45 percent in the decade of the nineties indicating an increased growth rate of 11 percent. This jump is significant.

- Madhya Pradesh condenses the development of three decades into one decade. In the decades of the nineties Madhya Pradesh records a jump almost equalling the total of the three decades of sixties, seventies and eighties. In three decades preceding nineties (61-91) female literacy grew by 20.47 percent. In the decade of the nineties (1991-2001) it grew by 20.93 percent.
- More than one person out of six persons removed from the category of non-literates in India in the decade of the nineties is from Madhya Pradesh. Madhya Pradesh taken together with Chhattisgarh account for 17.94 percent of the decadal decrease in illiteracy in India.
- Taken together with population figures, out of the decadal decrease in number of non-literates in India of 3,19,58,336, Madhya Pradesh together with Chhattisgarh account of 57,30,327.
- The net reduction in number of female non-literates is 10 million of which the then unified state of Madhya Pradesh accounts for 2.2 million. Almost one out of every five women removed from the category of non-literates was from Madhya Pradesh.
- Madhya Pradesh (again taken together with Chhattisgarh as it was a common state in the decade under review) a state with a considerable backlog in the area of literacy does better than Andhra Pradesh, Uttar Pradesh, Rajasthan, Bihar, Orissa and Jammu and Kashmir. In male literacy it goes ahead of the national average and the states mentioned above as well as Karnataka.
- In summary Nineties become the defining decade when MP leads by 20 percent to catch up with the national average and shed its "Bimaru" tag.

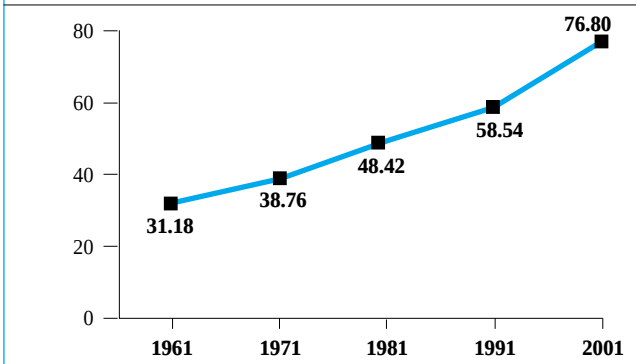
Madhya Pradesh closes the gap

Literacy is catching up with national average. While in 1991, the literacy rate of the new state of Madhya Pradesh was 18 percentage points below the national rate, today it stands neck to neck (64 percent to 65 percent).

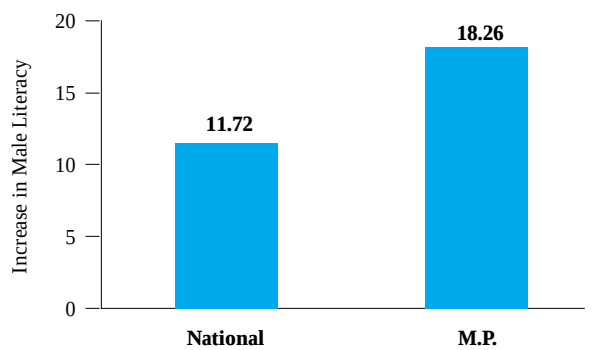
Male Literacy

- In the period 1991-2001, male literacy in Madhya Pradesh increased from 58.54 percent in 1991 to 76.80 in 2001 indicating an increase of 18.26 percent.
- Madhya Pradesh has moved ahead of the national average of 75.85 in male literacy and is ahead of the two southern states of Andhra Pradesh (70.85 percent) and Karnataka (76.29 percent, marginally lower) in male literacy.
- At the national level the growth rate in male literacy has been 11.72 percent, 42 out of 45 districts in Madhya Pradesh exceed the national growth rate in male literacy (the only exceptions being Indore, Gwalior and Bhopal).

Growth in Male Literacy in MP



Male Literacy Growth Rate Exceeds National Male Literacy Growth Rate



Female Literacy: Condensing three decades growth into one decade

In female literacy, Madhya Pradesh has condensed the growth of three decades into one decade. Taken as a combined state, the growth in female literacy has been 22.49 percent in the decade of the nineties. Female literacy was 8.88 in the 1961 Census, the first Census after the formation of the state of Madhya Pradesh. It grew to 13.93 in 1971, to 19.00 in 1981 and to 29.35 in 1991 making the combined growth in the 3 decades equal 20.47 percent. Against 20.47 percent growth in 3 decades, in the decade 1991-2001, Madhya Pradesh female literacy went up by 22.49 percent in the combined state and by 20.93 percent in the new state of Madhya Pradesh.

Decadal Increase in Female Literacy

This graph shows the impact of the period of the nineties on this vital development indicator.

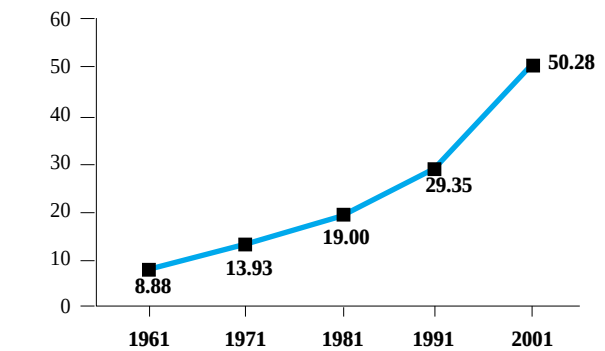
- Female literacy growth rate exceeds male literacy growth rate and it goes from 29.4 percent in 1991 to 50.3 percent in 2001 registering a 20.9 percent growth.
- The growth in Madhya Pradesh in female literacy far exceeds the national average. At the national level female literacy went up from 39.3 percent in 1991 to 54.2 percent in 2001 registering a 14.9 growth whereas in Madhya Pradesh the growth has been 22.5 (combined) and 20.93 (after division).
- It is for the first time that the growth rate of female literacy in Madhya Pradesh exceeded the growth rate for men and the national growth rate in female literacy.
- 39 out of Madhya Pradesh's 45 districts have a female literacy growth rate above the national female literacy growth rate of 14.87 percent.
- In 17 districts in Madhya Pradesh female literacy rate exceeds the national average of 54.2 percent whereas in 1991 only 6 districts in MP had a growth rate above the then national average.
- A few miracles in female literacy in Madhya Pradesh: In three districts -Datia, Shajapur and Raisen – female literacy rate growth ranges between 35-38 percent. The story of female literacy in 3 districts is shown in Table 6.
- In 22 districts female literacy rate went up more than 30 percent.
- For the first time, the gender gap between male literacy and female literacy started to decline in the decade of the nineties. The reduction in the male to female literacy rate is plotted in the graph.

Table 6

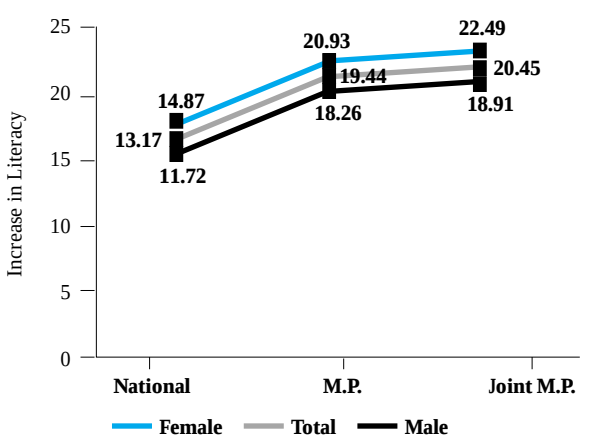
District	1981	1991	2001
Datia	15.13	24.45	62.48
Shajapur	11.38	19.77	57.58
Raisen	14.66	25.47	61.89

Source: Census of India, 2001

Decadal Increase in Female Literacy in Madhya Pradesh

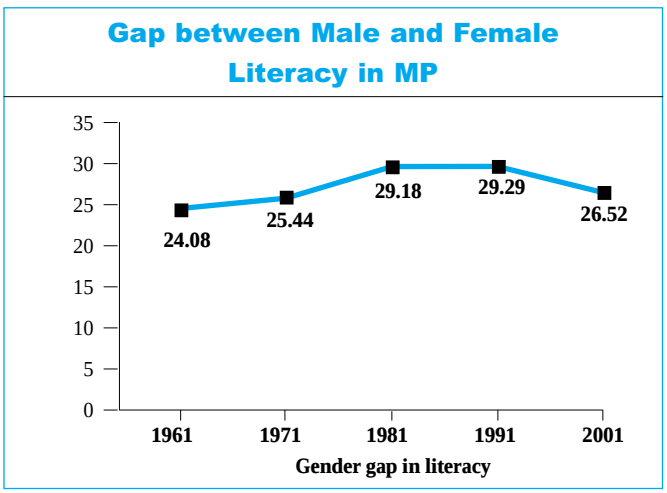


MP Female Literacy Growth Rate Exceeds National and Male Literacy Growth Rate



Probing Deeper into Some Districts

- Districts with larger Scheduled Caste Population do better in literacy growth
- Scheduled Caste populations constitute over 16 percent of Madhya Pradesh population. How have the districts with large scheduled caste populations done in literacy in the decade of the nineties?
- As may be seen in Table 7, 14 out of 19 districts with above average population of scheduled castes have a growth rate in literacy exceeding the state average.
- All these districts have a growth rate ahead of the national growth rate in literacy of 13.17 percent. Only two urban districts Gwalior and Indore which though they have a higher than state average of population of Scheduled Caste also have a relatively higher literacy rate of 69.79 and 74.82 respectively have logged a lower growth rate than the national growth rate.
- Districts with larger than state-share of Scheduled Tribes also do well in literacy in the nineties
- Madhya Pradesh has a population of over 20 percent Scheduled Tribes after the division of the state. 13 districts (of 1991) have a population of Scheduled Tribes exceeding 20 percent of the population.
- Here again 8 out of 13 predominantly tribal districts far exceed that state average and national average in the growth rate of literacy between 1991-2001. Only the districts of Barwani, Dindori, Dhar, Khandwa and Jhabua have a growth rate below the state average. All these five districts however have a growth rate above the national average.



Challenges Ahead

The challenges in Adult education are sustaining and consolidating the nascent literacy skills, linking literacy with life needs, and above all promoting women's education. Mahila Padhna Badhna Andolan was launched on 8th March 2002 to cover the female literacy gaps still remaining. It is expected that the Mahila Padhna Badhna Andolan will cover the remaining gap of 50 percent illiterate women. Under MPBA, 1.73 lakh Mahila Padhna Badhna Samitis have been formed and 35 lakh illiterate women have forwarded their demands to be made literate. Out of these 29.64 lakh women have been enrolled in the Mahila Padhna Badhna

Table 7

Selected Districts with SC Population above state average	% of Scheduled Caste Population in district	% Literacy in 2001 Census	% of growth in literacy between 91-2001 (against State Growth 20%, National Growth 13%)
Datia	24.67	73.51	28.32
Bhind	21.34	71.22	21.99
Morena	19.89	65.58	19.65 (Sheopur 20.06)
Rajgarh	18.00	54.05	22.24
Shivpuri	19.36	59.55	26.52
Guna	18.08	59.93	25.35
Tikamgarh	22.75	55.80	21.02
Raisen	16.55	72.76	32.00
Ujjain	24.56	71.18	22.12
Panna	20.40	61.61	27.93
Shajapur	22.34	71.14	31.94
Sehore	20.30	63.83	23.40
Satna	17.85	65.12	20.47
Narsinghpur	16.59	78.34	22.69
Chatarpur	23.70	53.44	18.24
Dewas	18.15	61.04	16.96
Vidisha	20.31	62.10	18.02
Sagar	21.09	68.08	14.64
Damoh	20.08	62.06	15.79

Source: Census of India, 2001

Creating a Social Action Group in every village: Padhna Badhna Sangh

Padhna Badhna Andolan with its 0.217 million *Padhna Badhna* literacy volunteers generated social energy even in remote rural areas that needed to be consolidated and strengthened. The nascent bonding for shared agenda seeded through a *Padhna Badhna Samiti* is sought to be captured in the form of village based Social Action Groups. The Social Action Group or the *Padhna Badhna Sangh* is conceptualised as a federation of the local *Padhna Badhna Samiies*. The *Padhna Badhna Sangh* or the Social Action Group is a collective of the *Gurujis* and the adult neo literates.

The key components around which Social Action Group activities are to be organised include :

- Mopping up residual illiteracy and consolidating neo-literacy skills.
- Income generation activities: *Padhna Badhna Sanghs* as self-Help Groups can develop projects for economic activities and field it to the district -level which could support this activity and also leverage other development funds.
- Cultural activities like setting up of Libraries: The state has set for itself a target of 51508 rural libraries to be established by the beginning of 2003. The effort is to give each library a television, radio and a public address system in addition to books, periodicals and newspapers and sport facilities. The community and the local administration will arrange the space for the library.

Each *Padhna Badhna Sangh* will select an animator or a "*Prerak*" who will lead the group. The literacy volunteer who has made the maximum number of persons literate in the *Padhna Badhna Andolan* would be chosen as the animator or *Prerak* of the Social Action Group.

The *Prerak* would be eligible for an honorarium for action under a six point charter : (a) managing the library (b) ensuring that every child is enrolled and retained in school, (c) every women in the village is made literate, (d) households are motivated for water conservation under the *Pani Roko Abhiyan* of the state government, (e) motivating households to adopt sanitation practices, and (f) conducting house-to-house campaigns for removal of untouchability. Based on the report of work done, an honorarium of Rupees six thousand will be made available to the *Prerak* after every twelve months. The *Prerak* thus takes the responsibility of activising the *Padhna Badhna Sangh* towards collective social action and cultural development. The training of the *Prerak* becomes a critical issue to be addressed on priority. The Shiksha Mission has planned for institutional development of these *Padhna Badhna Sanghs* by linking them up for capacity building by institutions engaged in social and cultural action.

Table 8

District	Population of ST in district	% of Literacy in 2001 Census	% growth in literacy
Jhabua	85.67	37.08	18.07
Mandla	60.84	60.77	23.75
Dindori	60.48	54.49	16.75
Umaria	54.84	60.26	27.63
Shahdol	46.32	57.76	22.31
Dhar	53.48	52.70	18.16
Khargone	46.23	63.41	22.18
Barwani	66.50	41.35	13.27
Betul	37.51	66.87	20.98
Seoni	36.95	65.88	21.39
Chhindwara	34.47	66.03	21.13
Sidhi	30.43	52.82	23.67
Khandwa	26.77	61.71	16.22

Source: Census of India, 2001

classes. The fourth Primer has been revised to make it sensitive to gender issues so that it becomes relevant to the women literacy groups.

Institutionalising the literacy energies to create a sustained base for continuing education is the major task at hand. This is expected from the Continuing Education (CE) programme of the NLM. A Continuing Education Project for each district has been formulated. Out of 45 districts 19 districts have received approvals and the remaining are expected to be cleared shortly. Work under CE has started, addressing issues like mopping up residual illiteracy in the form of *Mahila Padhna Badhna*, strengthening self help groups, and developing neo literate materials. Establishing a network of rural libraries and *Padhna Badhna Sangh*s are the key elements of institutionalisation that are expected to move literacy efforts towards Continuing Education that helps in improving the quality of life.

ANNEXURE-1: STATUS OF ACCESS AT PRIMARY LEVEL

S.No.	Name of the District	Number of Govt. Primary School	Number of EGS School	GAR
1	Betul	1565	433	100%
2	Raisen	1279	526	100%
3	Rajgarh	1281	593	100%
4	Sehore	1036	344	100%
5	Guna	1640	1040	100%
6	Dhar	1886	1326	100%
7	Rewa	1532	2033	100%
8	Satna	1776	903	100%
9	Shahdol	1774	1161	100%
10	Umaria	605	216	100%
11	Sidhi	1732	1455	100%
12	Chhatarpur	1393	494	100%
13	Panna	936	653	100%
14	Tikamgarh	1177	609	100%
15	Mandsaur	1013	231	100%
16	Neemuch	638	229	100%
17	Ratlam	1133	534	100%
18	Bhind	1349	420	100%
19	Damoh	1061	356	100%
20	Datia	670	126	100%
21	Dewas	1206	284	100%
22	Jhabua	2016	1860	100%
23	Khandwa	1470	275	100%
24	Khargone	1640	980	100%
25	Barwani	1009	1117	100%
26	Mandla	1419	662	100%
27	Dindori	984	392	100%
28	Morena	1315	453	100%
29	Sheopur	604	175	100%
30	Seoni	1659	521	100%
31	Shajapur	1178	350	100%
32	Shivpuri	1362	900	100%
33	Vidisha	1329	501	100%
34	Balaghat	1686	442	100%
35	Gwalior	1000	419	100%
36	Bhopal	605	192	100%
37	Narsinghpur	958	266	100%
38	Hoshangabad	954	174	100%
39	Harda	394	132	100%
40	Indore	883	154	100%
41	Chhindwara	1917	772	100%
42	Ujjain	1213	239	100%
43	Jabalpur	1232	352	100%
44	Katni	842	441	100%
45	Sagar	1537	596	100%
	Total	**55888**	**26331**	**100%**

Note: Private schools account for 12.3% mainly concentrated in urban areas. Acess has been an issue for rural areas, where the government is the main, if not very often, the sole provider.

Source: Rajiv Gandhi Prathmik Shiksha Mission, Government of Madhya Pradesh

ANNEXURE-2: STATUS OF ACCESS AT UPPER PRIMARY LEVEL

S. No.	Name of the District	Number of existing Government Middle Schools	Number of New Government Middle Schools	Total
1	Betul	404	175	579
2	Raisen	268	239	507
3	Rajgarh	359	192	551
4	Sehore	306	183	489
5	Guna	316	350	666
6	Dhar	518	133	651
7	Rewa	285	224	509
8	Satna	456	207	663
9	Shahdol	389	145	534
10	Umaria	64	86	150
11	Sidhi	428	300	728
12	Chhatarpur	296	163	459
13	Panna	250	195	445
14	Tikamgarh	192	273	465
15	Mandsaur	210	140	350
16	Neemuch	183	112	295
17	Ratlam	310	118	428
18	Bhind	427	157	584
19	Damoh	274	204	478
20	Datia	140	166	306
21	Dewas	229	150	379
22	Jhabua	310	168	478
23	Khandwa	326	109	435
24	Khargone	455	219	674
25	Barwani	233	239	472
26	Mandla	273	234	507
27	Dindori	176	112	288
28	Morena	309	97	406
29	Sheopur	105	56	161
30	Seoni	344	216	560
31	Shajapur	311	289	600
32	Shivpuri	319	249	568
33	Vidisha	307	152	459
34	Balaghat	396	129	525
35	Gwalior	324	77	401
36	Bhopal	167	86	253
37	Narsinghpur	241	87	328
38	Hoshangabad	272	121	393
39	Harda	80	76	156
40	Indore	413	171	584
41	Chhindwara	574	82	656
42	Ujjain	260	179	439
43	Jabalpur	393	128	521
44	Katni	198	127	325
45	Sagar	378	260	638
	Total	**13468**	**7575**	**21043**

Note: Data of only government schools; has been considered because government bears a major responsibility for providing access and hence of ensuring appropriate infrastructure support to the schools it creates.

Source: Rajiv Gandhi Prathmik Shiksha Mission, Government of Madhya Pradesh

ANNEXURE-3(i): INFRASTRUCTURE GAPS

S.No.	Name of the District	Existing Govt. Primary Schools without Building	Existing Govt. Middle Schools without Building
1	Betul	204	311
2	Raisen	505	319
3	Rajgarh	390	469
4	Sehore	400	326
5	Guna	777	653
6	Dhar	1061	279
7	Rewa	1314	338
8	Satna	1011	329
9	Shahdol	783	340
10	Umaria	165	108
11	Sidhi	671	746
12	Chhatarpur	125	256
13	Panna	513	384
14	Tikamgarh	248	360
15	Mandsaur	132	215
16	Neemuch	81	158
17	Ratlam	234	351
18	Bhind	388	562
19	Damoh	370	453
20	Datia	118	232
21	Dewas	195	312
22	Jhabua	416	318
23	Khandwa	305	323
24	Khargone	1030	446
25	Barwani	1077	421
26	Mandla	816	397
27	Dindori	437	204
28	Morena	425	180
29	Sheopur	279	108
30	Seoni	764	357
31	Shajapur	210	535
32	Shivpuri	431	519
33	Vidisha	697	261
34	Balaghat	765	320
35	Gwalior	612	338
36	Bhopal	403	223
37	Narsinghpur	544	243
38	Hoshangabad	272	292
39	Harda	185	216
40	Indore	781	442
41	Chhindwara	950	362
42	Ujjain	500	338
43	Jabalpur	590	369
44	Katni	503	317
45	Sagar	710	496
	Total	**23387**	**15526**

Note: Private schools account for 25.3% mainly concentrated in urban areas. Acess has been an issue for rural areas, where the government is the main, if not very often, the sole provider.

Source: Rajiv Gandhi Prathmik Shiksha Mission, Government of Madhya Pradesh

ANNEXURE-3(ii): INFRASTRUCTURE GAPS (DRINKING WATER FACILITY & TOILETS)

S. No.	District	GAPS TOILETS		GAPS DRINKING WATER	
		At Primary Level	At Middle Level	At Primary Level	At Middle Level
1	Betul	1137	491	652	424
2	Raisen	585	260	785	325
3	Rajgarh	630	284	631	308
4	Sehore	596	266	298	319
5	Guna	820	158	984	190
6	Dhar	504	404	612	263
7	Rewa	1218	160	300	150
8	Satna	1155	228	963	274
9	Shahdol	1561	99	1624	111
10	Umaria	600	120	598	120
11	Sidhi	416	285	420	220
12	Chhatarpur	1021	248	856	189
13	Panna	400	187	784	378
14	Tikamgarh	326	20	544	279
15	Mandsaur	507	175	608	175
16	Neemuch	297	97	248	120
17	Ratlam	200	275	650	250
18	Bhind	884	197	654	169
19	Damoh	400	321	637	200
20	Datia	515	140	476	140
21	Dewas	777	419	460	419
22	Jhabua	916	60	600	201
23	Khandwa	735	261	882	313
24	Khargone	1836	384	704	375
25	Barwani	504	116	500	140
26	Mandla	643	149	749	194
27	Dindori	1000	288	1169	288
28	Morena	865	207	1038	248
29	Sheopur	301	55	362	60
30	Seoni	820	275	984	336
31	Shajapur	764	135	920	680
32	Shivpuri	200	166	180	106
33	Vidisha	1516	639	467	225
34	Balaghat	943	200	1012	238
35	Gwalior	771	278	276	69
36	Bhopal	302	176	363	180
37	Narsinghpur	879	205	252	90
38	Hoshangabad	500	224	600	165
39	Harda	377	140	250	90
40	Indore	600	645	500	500
41	Chhindwara	959	287	1150	344
42	Ujjain	788	472	788	416
43	Jabalpur	1019	107	531	80
44	Katni	772	194	220	60
45	Sagar	700	140	952	187
	Grand Total	**33259**	**10637**	**29233**	**10608**

Note: Data of only government schools; has been considered because government bears a major responsibility for providing access and hence of ensuring appropriate infrastructure support to the schools it creates.

ANNEXURE-3(iii): INFRASTRUCTURE GAP (ADDITIONAL ROOMS & REPAIRS)

S.No.	District	Additional Rooms Required in Primary Schools	Additional Rooms Required in Middle Schools	Major Repairs required in school buildings	Minor Repair required in school buildings
1	Betul	1320	355	154	232
2	Raisen	1282	342	117	176
3	Rajgarh	618	328	144	215
4	Sehore	418	178	113	169
5	Guna	800	300	248	372
6	Dhar	640	325	207	311
7	Rewa	505	360	114	171
8	Satna	658	415	182	274
9	Shahdol	871	500	232	347
10	Umaria	1636	687	21	32
11	Sidhi	2196	717	164	246
12	Chhatarpur	743	468	118	178
13	Panna	633	363	84	125
14	Tikamgarh	452	84	77	115
15	Mandsaur	1065	230	89	133
16	Neemuch	199	92	73	110
17	Ratlam	407	108	124	186
18	Bhind	745	855	171	256
19	Damoh	541	171	110	164
20	Datia	1187	859	56	84
21	Dewas	411	132	116	173
22	Jhabua	881	267	182	272
23	Khandwa	561	480	130	196
24	Khargone	445	254	182	273
25	Barwani	274	107	94	142
26	Mandla	576	226	109	164
27	Dindori	521	100	70	105
28	Morena	810	555	124	185
29	Sheopur	253	114	108	162
30	Seoni	1249	885	138	206
31	Shajapur	1939	374	124	187
32	Shivpuri	494	109	126	188
33	Vidisha	1013	1046	123	184
34	Balaghat	1575	397	158	238
35	Gwalior	749	588	296	443
36	Bhopal	315	252	208	311
37	Narsinghpur	545	358	82	123
38	Hoshangabad	304	296	109	163
39	Harda	932	582	43	64
40	Indore	700	800	334	500
41	Chhindwara	1200	805	184	277
42	Ujjain	895	437	199	299
43	Jabalpur	919	240	150	224
44	Katni	594	237	149	224
45	Sagar	1597	564	151	227
	Total	**36668**	**17942**	**6287**	**9426**

Note: Data of only government schools; has been considered because government bears a major responsibility for providing access and hence of ensuring appropriate infrastructure support to the schools it creates.

ANNEXURE-4: POPULATION, ENROLMENT AND GROSS ENROLMENT RATIO (PRIMARY)

S.No.	District	Population 6-11 years age group			Enrolment Primary Level (I to V)			GER Primary 6-11age		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	Betul	107842	99250	207092	112938	100803	213741	104.7	101.6	103.2
2	Raisen	85560	75507	161067	87669	77020	164689	102.5	102.0	102.2
3	Rajgarh	94656	87404	182060	91886	75138	167024	97.1	86.0	91.7
4	Sehore	92853	83302	176155	89403	76775	166178	96.3	92.2	94.3
5	Guna	113280	92743	206023	120401	91366	211767	106.3	98.5	102.8
6	Dhar	139124	122711	261835	125924	101375	227299	90.5	82.6	86.8
7	Rewa	163826	143424	307250	157555	128065	285620	96.2	89.3	93.0
8	Satna	131707	120248	251955	124691	113124	237815	94.7	94.1	94.4
9	Shahdol	109899	101684	211583	107744	98690	206434	98.0	97.1	97.6
10	Umaria	45429	40352	85781	42777	37326	80103	94.2	92.5	93.4
11	Sidhi	148221	134963	283184	149285	124355	273640	100.7	92.1	96.6
12	Chhatarpur	108548	93357	201905	110237	90270	200507	101.6	96.7	99.3
13	Panna	69339	57510	126849	67738	54370	122108	97.7	94.5	96.3
14	Tikamgarh	97788	82300	180088	98906	82039	180945	101.1	99.7	100.5
15	Mandsaur	79862	71315	151177	77392	68320	145712	96.9	95.8	96.4
16	Neemuch	47369	40993	88362	45413	38075	83488	95.9	92.9	94.5
17	Ratlam	90332	75269	165601	94633	73858	168491	104.8	98.1	101.7
18	Bhind	121957	95196	217153	130162	103410	233572	106.7	108.6	107.6
19	Damoh	94365	81233	175598	90307	78264	168571	95.7	96.3	96.0
20	Datia	51221	43171	94392	51836	44648	96484	101.2	103.4	102.2
21	Dewas	98586	92392	190978	95904	80574	176478	97.3	87.2	92.4
22	Jhabua	156645	124452	281097	136637	95606	232243	87.2	76.8	82.6
23	Khandwa	118594	102181	220775	118339	96692	215031	99.8	94.6	97.4
24	Khargone	115545	104947	220492	108913	91710	200623	94.3	87.4	91.0
25	Barwani	82818	76253	159071	71763	58222	129985	86.7	76.4	81.7
26	Mandla	71671	67482	139153	71043	65494	136537	99.1	97.1	98.1
27	Dindori	43343	40546	83889	41581	36918	78499	95.9	91.1	93.6
28	Morena	132670	109098	241768	136612	111957	248569	103.0	102.6	102.8
29	Sheopur	46500	37234	83734	48617	34758	83375	104.6	93.4	99.6
30	Seoni	93099	89775	182874	93785	88928	182713	100.7	99.1	99.9
31	Shajapur	101172	85267	186439	100120	83438	183558	99.0	97.9	98.5
32	Shivpuri	149048	117135	266183	143872	109447	253319	96.5	93.4	95.2
33	Vidisha	95941	84938	180879	100278	85848	186126	104.5	101.1	102.9
34	Balaghat	107377	104526	211903	108781	104932	213713	101.3	100.4	100.9
35	Gwalior	98051	79646	177697	98890	78139	177029	100.9	98.1	99.6
36	Bhopal	122426	104486	226912	113361	100774	214135	92.6	96.4	94.4
37	Narsinghpur	62852	56766	119618	63964	56535	120499	101.8	99.6	100.7
38	Hoshangabad	72154	63370	135524	71088	63370	134458	98.5	100.0	99.2
39	Harda	37955	30916	68871	37536	29113	66649	98.9	94.2	96.8
40	Indore	141201	121113	262314	125227	109016	234243	88.7	90.0	89.3
41	Chhindwara	142300	128698	270998	139756	120891	260647	98.2	93.9	96.2
42	Ujjain	160485	140474	300959	156357	128454	284811	97.4	91.4	94.6
43	Jabalpur	136115	126658	262773	131201	123641	254842	96.4	97.6	97.0
44	Katni	80972	67980	148952	77410	63724	141134	95.6	93.7	94.8
45	Sagar	119809	107217	227026	117704	102398	220102	98.2	95.5	97.0
	Total	**4580507**	**4005482**	**8585989**	**4485636**	**3777870**	**8263506**	**97.9**	**94.3**	**96.2**

Source: *Lok Sampark Abhiyan (2000-01)*

Note: Data includes all children (government + private)

ANNEXURE-5: POPULATION, ENROLMENT AND GROSS ENROLMENT RATIO (MIDDLE)

S.No.	District	Population 11-14 years age group (VI-VIII)			Enrolment at Middle Level			GER Middle 11-14 age		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	Betul	41185	37456	78641	29881	24798	54679	72.6	66.2	69.5
2	Raisen	30250	22258	52508	22505	12598	35103	74.4	56.6	66.9
3	Rajgarh	39100	32635	71735	25377	18946	44323	64.9	58.1	61.8
4	Sehore	35957	27363	63320	29341	18801	48142	81.6	68.7	76.0
5	Guna	49525	34837	84362	34500	17583	52083	69.7	50.5	61.7
6	Dhar	56350	47453	103803	33207	24602	57809	58.9	51.8	55.7
7	Rewa	73696	58700	132396	54943	41042	95985	74.6	69.9	72.5
8	Satna	65018	51541	116559	54859	36851	91710	84.4	71.5	78.7
9	Shahdol	49529	43508	93037	44551	37134	81685	89.9	85.3	87.8
10	Umaria	19881	16527	36408	15904	11651	27555	80.0	70.5	75.7
11	Sidhi	65462	50892	116354	40023	23862	63885	61.1	46.9	54.9
12	Chhatarpur	44649	29331	73980	28369	13141	41510	63.5	44.8	56.1
13	Panna	24852	18952	43804	16351	9607	25958	65.8	50.7	59.3
14	Tikamgarh	39828	26340	66168	33204	10950	44154	83.4	41.6	66.7
15	Mandsaur	29420	19937	49357	25801	13509	39310	87.7	67.8	79.6
16	Neemuch	17248	11181	28429	15068	9421	24489	87.4	84.3	86.1
17	Ratlam	33537	21897	55434	22029	11459	33488	65.7	52.3	60.4
18	Bhind	52008	34793	86801	49812	31558	81370	95.8	90.7	93.7
19	Damoh	35218	25217	60435	29149	18475	47624	82.8	73.3	78.8
20	Datia	21496	14115	35611	16835	8854	25689	78.3	62.7	72.1
21	Dewas	44037	32121	76158	34832	19649	54481	79.1	61.2	71.5
22	Jhabua	50581	42732	93313	17915	10933	28848	35.4	25.6	30.9
23	Khandwa	43148	32675	75823	27709	18227	45936	64.2	55.8	60.6
24	Khargone	48947	35019	83966	31783	20878	52661	64.9	59.6	62.7
25	Barwani	30653	23529	54182	13176	8856	22032	43.0	37.6	40.7
26	Mandla	27577	22439	50016	24918	16996	41914	90.4	75.7	83.8
27	Dindori	16068	12506	28574	11838	8811	20649	73.7	70.5	72.3
28	Morena	58738	34103	92841	52954	28887	81841	90.2	84.7	88.2
29	Sheopur	20433	12393	32826	10257	3691	13948	50.2	29.8	42.5
30	Seoni	38095	34272	72367	26660	21890	48550	70.0	63.9	67.1
31	Shajapur	37245	18939	56184	33411	14224	47635	89.7	75.1	84.8
32	Shivpuri	36951	19181	56132	30951	10742	41693	83.8	56.0	74.3
33	Vidisha	36855	23553	60408	23760	12106	35866	64.5	51.4	59.4
34	Balaghat	62195	59228	121423	52126	48908	101034	83.8	82.6	83.2
35	Gwalior	52021	39469	91490	31709	21595	53304	61.0	54.7	58.3
36	Bhopal	56880	45830	102710	50044	40498	90542	88.0	88.4	88.2
37	Narsinghpur	27954	21712	49666	21489	15507	36996	76.9	71.4	74.5
38	Hoshangabad	32538	25471	58009	24791	17604	42395	76.2	69.1	73.1
39	Harda	19374	14664	34038	14361	9149	23510	74.1	62.4	69.1
40	Indore	65270	55690	120960	57473	47711	105184	88.1	85.7	87.0
41	Chhindwara	59209	53149	112358	39019	32862	71881	65.9	61.8	64.0
42	Ujjain	57450	48972	106422	41907	27910	69817	72.9	57.0	65.6
43	Jabalpur	36273	27350	63623	30234	22343	52577	83.4	81.7	82.6
44	Katni	32827	22292	55119	28139	16621	44760	85.7	74.6	81.2
45	Sagar	55326	39631	94957	43252	26516	69768	78.2	66.9	73.5
	Total	**1870854**	**1421853**	**3292707**	**1396417**	**917956**	**2314373**	**74.6**	**64.6**	**70.3**

Source: *Lok Sampark Abhiyan (2000-01)*

Note: Data includes all children (government + private)

ANNEXURE-6: OUT OF SCHOOL CHILDREN

S.No.	District	Dropouts (Class 1-8)			Never Enrolled of 6-14 age			Total Out of School of 6-14 age		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	Betul	4236	4256	8492	3942	5740	9682	8178	9996	18174
2	Raisen	1802	2016	3818	3249	3528	6777	5051	5544	10595
3	Rajgarh	5623	7677	13300	10194	13176	23370	15817	20853	36670
4	Sehore	4041	7354	11395	10157	13894	24051	14198	21248	35446
5	Guna	4952	5535	10487	11771	15039	26810	16723	20574	37297
6	Dhar	10387	11160	21547	29539	34230	63769	39926	45390	85316
7	Rewa	6082	6731	12813	13473	23755	37228	19555	30486	50041
8	Satna	3210	3616	6826	9523	10998	20521	12733	14614	27347
9	Shahdol	4531	4482	9013	6547	7333	13880	11078	11815	22893
10	Umaria	1751	2817	4568	3301	4662	7963	5052	7479	12531
11	Sidhi	5471	6109	11580	21286	34652	55938	26757	40761	67518
12	Chhatarpur	3600	4107	7707	11422	13276	24698	15022	17383	32405
13	Panna	2425	2547	4972	8287	9405	17692	10712	11952	22664
14	Tikamgarh	1902	1888	3790	11328	11554	22882	13230	13442	26672
15	Mandsaur	1326	1799	3125	3291	4378	7669	4617	6177	10794
16	Neemuch	1273	1812	3085	2863	2866	5729	4136	4678	8814
17	Ratlam	3520	3372	6892	2642	3511	6153	6162	6883	13045
18	Bhind	694	928	1622	2372	2316	4688	3066	3244	6310
19	Damoh	3775	4023	7798	5445	6002	11447	9220	10025	19245
20	Datia	558	599	1157	1672	1783	3455	2230	2382	4612
21	Dewas	3749	5495	9244	6158	10637	16795	9907	16132	26039
22	Jhabua	10098	7970	18068	37771	45707	83478	47869	53677	101546
23	Khandwa	5755	5216	10971	14318	15848	30166	20073	21064	41137
24	Khargone	6412	6561	12973	14288	16161	30449	20700	22722	43422
25	Barwani	6336	5607	11943	21459	24265	45724	27795	29872	57667
26	Mandla	3019	3904	6923	2014	2368	4382	5033	6272	11305
27	Dindori	3405	4040	7445	2639	2922	5561	6044	6962	13006
28	Morena	883	1302	2185	1935	2150	4085	2818	3452	6270
29	Sheopur	2284	2363	4647	5802	8581	14383	8086	10944	19030
30	Seoni	4233	4066	8299	6574	7546	14120	10807	11612	22419
31	Shajapur	2386	2930	5316	2756	3707	6463	5142	6637	11779
32	Shivpuri	4462	5212	9674	5737	8469	14206	10199	13681	23880
33	Vidisha	1545	1314	2859	6136	6788	12924	7681	8102	15783
34	Balaghat	6116	6086	12202	5024	5969	10993	11140	12055	23195
35	Gwalior	2966	3077	6043	12535	12992	25527	15501	16069	31570
36	Bhopal	1386	1686	3072	10980	7164	18144	12366	8850	21216
37	Narsinghpur	1493	1722	3215	3740	4341	8081	5233	6063	11296
38	Hoshangabad	2437	2768	5205	8451	11081	19532	10888	13849	24737
39	Harda	1859	1799	3658	4551	5528	10079	6410	7327	13737
40	Indore	5436	6482	11918	24173	23523	47696	29609	30005	59614
41	Chhindwara	11377	11880	23257	14704	26140	40844	26081	38020	64101
42	Ujjain	8529	10628	19157	10996	17832	28828	19525	28460	47985
43	Jabalpur	6839	7374	14213	9515	9103	18618	16354	16477	32831
44	Katni	3336	4027	7363	7737	6892	14629	11073	10919	21992
45	Sagar	6729	8129	14858	8243	10454	18697	14972	18583	33555
	Total	**184229**	**204466**	**388695**	**420540**	**518266**	**938806**	**604769**	**722732**	**1327501**

Source: *Lok Sampark Abhiyan (2000-01)*
Note: Data includes all children (government + private)

ANNEXURE-7: DISTRICT WISE LITERACY STATUS AS PER 2001 CENSUS

S. No	District	Literacy % in 1991			Literacy % in 2001			Literacy growth in decade (1991-2001)		
		Total	Male	Female	Total	Male	Female	Total *	Male	Female
1	Betul	45.89	57.42	33.90	66.87	77.31	56.05	20.98	19.89	22.15
2	Raisen	40.76	54.02	25.47	72.76	82.18	61.89	32.00	28.16	36.42
3	Rajgarh	31.81	46.73	15.62	54.05	69.53	37.37	22.24	22.80	21.75
4	Sehore	40.43	56.90	21.99	63.83	78.14	47.95	23.40	21.24	25.96
5	Guna	34.58	48.86	17.99	59.93	74.70	43.06	25.35	25.84	25.07
6	Dhar	34.54	47.62	20.71	52.70	66.18	38.62	18.16	18.56	17.91
7	Rewa	44.38	60.67	26.88	62.33	75.97	47.83	17.95	15.30	20.95
8	Satna	44.65	60.03	27.80	65.12	77.82	51.40	20.47	17.79	23.60
9	Shadol	35.45	48.93	20.93	57.76	69.55	45.40	22.31	20.62	24.47
10	Umaria	32.63	46.85	17.43	60.26	74.11	45.57	27.63	27.26	28.14
11	Sidhi	29.15	43.23	13.61	52.82	68.03	36.43	23.67	24.80	22.82
12	Chatarpur	35.20	46.87	21.32	53.44	65.50	39.38	18.24	18.63	18.06
13	Panna	33.68	46.29	19.41	61.61	74.02	47.84	27.93	27.73	28.43
14	Tikamgarh	34.78	47.52	19.96	55.80	68.83	40.98	21.02	21.31	21.02
15	Mandsaur	47.66	66.98	27.24	70.65	85.77	54.87	22.99	18.79	27.63
16	Neemuch	50.27	69.34	30.04	66.47	83.04	49.12	16.20	13.70	19.08
17	Ratlam	44.15	58.36	29.13	67.65	80.10	54.66	23.50	21.74	25.53
18	Bhind	49.23	66.20	28.20	71.22	84.06	55.73	21.99	17.86	27.53
19	Damoh	46.27	60.49	30.46	62.06	75.05	47.51	15.79	14.56	17.05
20	Datia	45.19	62.50	24.45	73.51	82.94	62.48	28.32	20.44	38.03
21	Dewas	44.08	61.15	25.57	61.04	76.07	44.90	16.96	14.92	19.33
22	Jhabua	19.01	26.29	11.52	37.08	48.75	25.50	18.07	22.46	13.98
23	Khandwa	45.49	58.53	31.53	61.71	74.09	48.46	16.22	15.56	16.93
24	Khargoan	41.23	55.43	26.09	63.41	75.23	50.89	22.18	19.80	24.80
25	Badwani	28.08	36.77	19.01	41.35	51.09	31.35	13.27	14.32	12.34
26	Mandla	37.02	50.45	23.48	60.77	76.71	45.39	23.75	26.26	21.91
27	Dindori	37.74	55.05	20.21	54.49	70.41	38.48	16.75	15.36	18.27
28	Morena	45.93	63.53	23.79	65.58	80.97	46.81	19.65	17.44	23.02
29	Sheopur	26.55	40.73	12.27	46.61	62.19	28.99	20.06	21.46	16.72
30	Seoni	44.49	57.50	31.14	65.88	77.50	54.06	21.39	20.00	22.92
31	Shajapur	39.20	56.99	19.77	71.14	83.68	57.58	31.94	26.69	37.81
32	Shivpuri	33.03	47.50	15.64	59.55	74.78	41.54	26.52	27.28	25.90
33	Vidisha	44.08	58.04	27.81	62.10	74.71	47.45	18.02	16.67	19.64
34	Balaghat	53.23	67.63	38.95	68.81	81.09	57.02	15.58	13.46	18.07
35	Gwalior	58.36	70.87	43.08	69.79	80.83	56.76	11.43	9.96	13.68
36	Bhopal	64.27	73.14	54.17	75.08	82.56	66.67	10.81	9.42	12.50
37	Narsingpur	55.65	68.44	41.59	78.34	86.79	69.02	22.69	18.35	27.43
38	Hoshangabad	54.11	67.19	39.29	70.36	81.36	58.02	16.25	14.17	18.73
39	Harda	48.84	62.54	33.76	66.82	78.45	54.14	17.98	15.91	20.38
40	Indore	66.32	77.99	53.35	74.82	84.32	63.96	8.50	6.33	10.61
41	Chindwara	44.90	56.65	32.52	66.03	76.70	54.82	21.13	20.05	22.30
42	Ujjain	49.06	64.25	32.64	71.18	83.70	57.87	22.12	19.45	25.23
43	Jabalpur	64.60	75.64	52.29	76.21	91.40	59.47	11.61	15.76	7.18
44	Katni	47.81	63.97	30.53	64.68	79.88	48.48	16.87	15.91	17.95
45	Sagar	53.44	67.02	37.78	68.08	79.96	54.50	14.64	12.94	16.72
	M.P.	**44.67**	**58.54**	**29.35**	**64.11**	**76.80**	**50.28**	**19.44**	**18.26**	**20.93**
	National	**52.21**	**64.13**	**39.29**	**65.38**	**75.85**	**54.16**	**13.17**	**11.72**	**14.87**

Source: *Lok Sampark Abhiyan (2000-01)*
Note: Data includes all children (government + private)

ANNEXURE-8

"DEFINITIONS

Equity

Equity Index of participation (Enrolment) : Equity in terms of share of target group in Enrolment as against share of target group in population."

Equity Index of Participation Enrolment as per Lok Sampark Abhiyan - II (Year 2000) data

Tribal Equity Index = (ST as % of total Enrolment / ST as % of Target Population) X 100

Gender Equity Index = (Girls as % of total Enrolment / Girls as % of Target Population) X 100

Social Equity Index = (SC+ST as % of total Enrolment / SC+ST as % of Target Population) X 100

Gross Enrolment Ratio (GER)

GER Primary = (Enrolment Class 1 to 5 / Target population 6 to 11 years) X 100

GER Middle = (Enrolment Class 6 to 8 / Target population 11 to 14 years) X 100

GER Elementary = (Enrolment Class 1 to 8 / Target population 6 to 14 years) X 100

Enrolment includes unde rage and over age children, so GER may be more than 100

Gross Access Ratio (GAR)

GAR Primary = (No of Habitations having Primary Schooling facility within 1 k.m. / Total No of Habitations) X 100

ANNEXURE-9

District	Gross Enrolment Ratio Primary by Gender & Caste						Equity Index at Primary Level			
	Boys	Girls	SC	ST	Others	Total	Gender	SC	Tribal	Social
Betul	104.7	101.6	105.2	ST	97.7	103.2	98.4	102.0	104.5	104.0
Raisen	102.5	102.0	105.7	ST	100.1	102.2	99.8	103.4	103.7	103.6
Rajgarh	97.1	86.0	89.8	ST	92.7	91.7	93.7	97.9	90.6	96.7
Sehore	96.3	92.2	94.5	ST	96.4	94.3	97.7	100.1	88.3	96.0
Guna	106.3	98.5	101.8	ST	104.0	102.8	95.8	99.0	96.4	97.9
Dhar	90.5	82.6	84.8	ST	91.4	86.8	95.2	97.7	97.6	97.6
Rewa	96.2	89.3	83.5	ST	92.3	93.0	96.1	89.8	111.0	101.3
Satna	94.7	94.1	97.2	ST	94.8	94.4	99.7	103.0	94.8	99.2
Shahdol	98.0	97.1	96.3	ST	98.2	97.6	99.5	98.7	99.7	99.5
Umaria	94.2	92.5	92.8	ST	92.8	93.4	99.1	99.4	100.7	100.5
Sidhi	100.7	92.1	95.9	ST	99.8	96.6	95.4	99.2	94.5	96.0
Chhatarpur	101.6	96.7	98.5	ST	100.0	99.3	97.4	99.2	95.3	98.6
Panna	97.7	94.5	94.8	ST	98.5	96.3	98.2	98.5	94.1	96.5
Tikamgarh	101.1	99.7	100.0	ST	100.7	100.5	99.2	99.5	99.5	99.5
Mandsaur	96.9	95.8	99.2	ST	95.5	96.4	99.4	103.0	104.0	103.1
Neemuch	95.9	92.9	92.4	ST	95.9	94.5	98.3	97.8	90.0	94.9
Ratlam	104.8	98.1	107.0	ST	102.4	101.7	96.4	105.1	95.9	99.1
DPEP-I Total	**98.8**	**94.0**	**96.5**	**ST**	**97.3**	**96.5**	**97.4**	**99.9**	**98.2**	**98.9**
Bhind	106.7	108.6	103.3	ST	109.0	107.6	101.0	96.1	73.4	95.7
Damoh	95.7	96.3	92.8	ST	95.2	96.0	100.4	96.6	109.2	101.4
Datia	101.2	103.4	102.6	ST	101.9	102.2	101.2	100.4	109.1	100.9
Dewas	97.3	87.2	93.7	ST	98.2	92.4	94.4	101.4	79.5	91.6
Jhabua	87.2	76.8	85.5	ST	101.0	82.6	93.0	103.5	98.3	98.5
Khandwa	99.8	94.6	102.2	ST	105.6	97.4	97.2	104.9	87.3	91.8
Khargone	94.3	87.4	91.0	ST	92.8	91.0	96.0	100.0	97.6	98.3
Barwani	86.7	76.4	83.5	ST	88.9	81.7	93.4	102.2	97.2	97.6
Mandla	99.1	97.1	96.7	ST	98.3	98.1	98.9	98.5	100.0	99.9
Dindori	95.9	91.1	97.3	ST	95.6	93.6	97.3	104.0	98.8	99.2
Morena	103.0	102.6	103.7	ST	102.5	102.8	99.8	100.9	106.6	101.1
Sheopur	104.6	93.4	105.6	ST	102.5	99.6	93.8	106.1	87.7	95.7
Seoni	100.7	99.1	99.7	ST	99.9	99.9	99.1	99.8	100.0	100.0
Shajapur	99.0	97.9	98.3	ST	98.6	98.5	99.4	99.8	97.1	99.5
Shivpuri	96.5	93.4	90.5	ST	99.9	95.2	98.2	95.1	86.6	91.7
Vidisha	104.5	101.1	105.0	ST	102.2	102.9	98.2	102.0	100.9	101.8
DPEP-II Total	**97.9**	**93.7**	**97.8**	**ST**	**100.6**	**95.9**	**97.6**	**102.0**	**90.6**	**94.6**
DPEP-I+II Total	**98.3**	**93.8**	**97.1**	**ST**	**98.8**	**96.3**	**97.5**	**100.9**	**94.1**	**96.7**
Balaghat	101.3	100.4	102.9	ST	102.0	100.9	99.5	102.0	96.2	97.5
Gwalior	100.9	98.1	88.3	ST	104.9	99.6	98.5	88.7	84.3	88.0
Bhopal	92.6	96.4	94.8	ST	95.2	94.4	102.2	100.5	84.0	96.8
Narsinghpur	101.8	99.6	100.8	ST	100.5	100.7	98.9	100.0	101.0	100.5
Hoshangabad	98.5	100.0	103.2	ST	97.8	99.2	100.8	104.0	102.7	103.4
Harda	98.9	94.2	99.7	ST	102.8	96.8	97.3	103.0	85.8	92.8
Indore	88.7	90.0	90.4	ST	89.4	89.3	100.8	101.2	95.0	99.6
Chhindwara	98.2	93.9	101.3	ST	99.5	96.2	97.7	105.3	94.3	96.8
Ujjain	97.4	91.4	93.6	ST	95.0	94.6	96.6	98.9	101.2	99.1
Jabalpur	96.4	97.6	100.4	ST	95.7	97.0	100.7	103.5	100.5	101.8
Katni	95.6	93.7	91.0	ST	96.9	94.8	98.9	96.0	97.1	96.7
Sagar	98.2	95.5	98.0	ST	97.8	97.0	98.5	101.1	93.3	98.5
Non DPEP	96.8	95.5	95.9	ST	97.1	96.2	99.3	99.7	96.5	98.2
Total (45 Dist)	**97.9**	**94.3**	**96.7**	**ST**	**98.2**	**96.2**	**98.0**	**100.5**	**94.6**	**97.0**
Total (45 Dist)	**97.9**	**94.3**	**96.7**	**91.0**	**98.2**	**96.2**	**98.0**	**100.5**	**94.6**	**97.0**

Source: *Lok Sampark Abhiyan (2000-01)*
Note: Data includes all children (government + private)

ANNEXURE-10: ACHIEVEMENT (IN MEAN%) OF STUDENTS IN LANGUAGE AND MATHEMATICS IN BASE LINE TESTS (1994), MID-TERM TESTS(1997) AND TERMINAL TESTS(2001) IN 17 DISTRICTS*

Testing year	Class I						Class IV					
	Language			Mathematics			Language			Mathematics		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Baseline 1994	47.21	44.54	46.04	41.38	40.19	40.39	32.62	31.05	31.75	28.55	26.26	27.84
Mid-term 1997	56.56	54.77	56.04	55.72	49.73	53.42	36.73	35.97	36.47	29.17	26.50	28.36
Terminal 2001	76.35	75.11	75.75	77.18	74.85	76.04	60.43	60.17	60.31	52.71	51.40	52.12
Increase in Achievement	29.14	30.57	29.71	35.80	34.66	35.65	27.81	29.12	28.56	24.16	25.14	24.28

ANNEXURE-10: ACHIEVEMENT (IN MEAN %) OF STUDENTS IN LANGUAGE AND MATHEMATICS IN BASE LINE TESTS (1997) AND MID-TERM TESTS (2000) IN 13 DISTRICTS*

Testing year	Class I						Class IV					
	Language			Mathematics			Language			Mathematics		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Baseline 1997	39.69	36.08	38.76	33.83	35.09	34.09	31.39	32.04	31.99	26.67	26.30	26.65
Mid-term 2000	55.33	53.68	54.95	61.68	65.10	62.07	43.17	42.10	43.05	33.64	36.88	35.78
Terminal tests are to be conducted Increase in Achievement												
from Baseline to Mid-term tests	15.64	17.60	16.19	27.85	30.01	27.98	11.78	10.06	11.06	6.97	10.58	9.13

*These tests were conducted by NCERT, New Delhi for districts covered under the centrally sponsered scheme District Primary Education programme (DPEP)

ANNEXURE-11: POPULATION, ENROLMENT AND GROSS ENROLMENT RATIO (ELEMENTRY)

District		Population 6-14 years age group			Enrolment at Elementary Level (I-VIII)			GER Elementary 6-14 age		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	Betul	149027	136706	285733	142819	125601	268420	95.8	91.9	93.9
2	Raisen	115810	97765	213575	110174	89618	199792	95.1	91.7	93.5
3	Rajgarh	133756	120039	253795	117263	94084	211347	87.7	78.4	83.3
4	Sehore	128810	110665	239475	118744	95576	214320	92.2	86.4	89.5
5	Guna	162805	127580	290385	154901	108949	263850	95.1	85.4	90.9
6	Dhar	195474	170164	365638	159131	125977	285108	81.4	74.0	78.0
7	Rewa	237522	202124	439646	212498	169107	381605	89.5	83.7	86.8
8	Satna	196725	171789	368514	179550	149975	329525	91.3	87.3	89.4
9	Shahdol	159428	145192	304620	152295	135824	288119	95.5	93.5	94.6
10	Umaria	65310	56879	122189	58681	48977	107658	89.8	86.1	88.1
11	Sidhi	213683	185855	399538	189308	148217	337525	88.6	79.7	84.5
12	Chhatarpur	153197	122688	275885	138606	103411	242017	90.5	84.3	87.7
13	Panna	94191	76462	170653	84089	63977	148066	89.3	83.7	86.8
14	Tikamgarh	137616	108640	246256	132110	92989	225099	96.0	85.6	91.4
15	Mandsaur	109282	91252	200534	103193	81829	185022	94.4	89.7	92.3
16	Neemuch	64617	52174	116791	60481	47496	107977	93.6	91.0	92.5
17	Ratlam	123869	97166	221035	116662	85317	201979	94.2	87.8	91.4
18	Bhind	173965	129989	303954	179974	134968	314942	103.5	103.8	103.6
19	Damoh	129583	106450	236033	119456	96739	216195	92.2	90.9	91.6
20	Datia	72717	57286	130003	68671	53502	122173	94.4	93.4	94.0
21	Dewas	142623	124513	267136	130736	100223	230959	91.7	80.5	86.5
22	Jhabua	207226	167184	374410	154552	106539	261091	74.6	63.7	69.7
23	Khandwa	161742	134856	296598	146048	114919	260967	90.3	85.2	88.0
24	Khargone	164492	139966	304458	140696	112588	253284	85.5	80.4	83.2
25	Barwani	113471	99782	213253	84939	67078	152017	74.9	67.2	71.3
26	Mandla	99248	89921	189169	95961	82490	178451	96.7	91.7	94.3
27	Dindori	59411	53052	112463	53419	45729	99148	89.9	86.2	88.2
28	Morena	191408	143201	334609	189566	140844	330410	99.0	98.4	98.7
29	Sheopur	66933	49627	116560	58874	38449	97323	88.0	77.5	83.5
30	Seoni	131194	124047	255241	120445	110818	231263	91.8	89.3	90.6
31	Shajapur	138417	104206	242623	133531	97662	231193	96.5	93.7	95.3
32	Shivpuri	185999	136316	322315	174823	120189	295012	94.0	88.2	91.5
33	Vidisha	132796	108491	241287	124038	97954	221992	93.4	90.3	92.0
34	Balaghat	169572	163754	333326	160907	153840	314747	94.9	93.9	94.4
35	Gwalior	150072	119115	269187	130599	99734	230333	87.0	83.7	85.6
36	Bhopal	179306	150316	329622	163405	141272	304677	91.1	94.0	92.4
37	Narsinghpur	90806	78478	169284	85453	72042	157495	94.1	91.8	93.0
38	Hoshangabad	104692	88841	193533	95879	80974	176853	91.6	91.1	91.4
39	Harda	57329	45580	102909	51897	38262	90159	90.5	83.9	87.6
40	Indore	206471	176803	383274	182700	156727	339427	88.5	88.6	88.6
41	Chhindwara	201509	181847	383356	178775	153753	332528	88.7	84.6	86.7
42	Ujjain	217935	189446	407381	198264	156364	354628	91.0	82.5	87.1
43	Jabalpur	172388	154008	326396	161435	145984	307419	93.6	94.8	94.2
44	Katni	113799	90272	204071	105549	80345	185894	92.8	89.0	91.1
45	Sagar	175135	146848	321983	160956	128914	289870	91.9	87.8	90.0
	Total	**6451361**	**5427335**	**11878696**	**5882053**	**4695826**	**10577879**	**91.2**	**86.5**	**89.0**

Source: Lok Sampark Abhiyan(2000-01)

Note: Data includes all children (government + private)

The Challenge in Health: To Build from Below

1. Background

Within the human development sector, delivery of effective public health services is the most daunting challenge facing Madhya Pradesh. Several national level evaluations have shown that Madhya Pradesh along with Orissa are amongst the two States that have the lowest indicators. However, a positive signal that has emerged from Census 2001 is that, for the first time, the growth in population has shown a declining trend. Given the fact that health indicators have not dramatically improved, this decline could be attributed to cumulative outcome of multiple initiatives that have happened in the state in the area of women empowerment, female literacy, girls education and political decentralisation which provided brought women into public space.

The management of health care if imaginatively restructured, can benefit from the multiple energies that get released in this process of decentralisation. Health sector can use this opportunity to move back to a desirable framework of comprehensive health care from the trap of selective health care in to which it has fallen. Political decentralisation provides the multi-sectoral institutional framework into which such an agenda can be seeded. The need to shift to comprehensive health care, strengthen community health action and work through institutional arrangement created by political decentralisation has informed the new health policy of the Government of India and has been a recurring theme at the People's Health Assembly held in 2001 in Dhaka. The recent initiatives of the government of Madhya Pradesh of constituting a Mission for Community Health for decentralisation of health care, the creation of a multi-sectoral forum at the district level of the District Health Society and at the state level of a State Health Society are steps in this directions.

In the last decade, while the state of Madhya Pradesh has made considerable gains and moved both in its institutional set up and in its programmatic framework in many fields, the problems of health are a challenge for everyone. Since its formation in 1956, there has been sustained state action to improve the health of the people of Madhya Pradesh, through an ever-increasing provision of health services. This has resulted in health indicators improving over the years.

Among the many reasons for persistent poor state of health in the state is that health care delivery infrastructure in the state is still not adequate enough to meet out the health needs of the people in an efficient and cost effective manner. Given the geographical vastness of the state and its very sharp social cultural and economic diversity, it is abundantly clear that substantial inputs are still needed for the development of healthy human resources in the state. The population density of Madhya Pradesh is low, 183 persons per square kilometres, as against 324 persons per square kilometres for India[1]. Thus health centres, planned and established on population norms are not spatially as accessible and plenty as required[2]. Madhya Pradesh has a large forest cover that excludes large areas from access, and build up of social and economic infrastructure. Around 18000 of the 51806 villages of Madhya Pradesh are either forest villages or are on the periphery of a forest, and are directly affected by forests and rules and regulations governing them. With a large population of tribal communities residing in such villages, provision of health services and their access is difficult for communities residing in these villages.

This chapter is divided into three sections. The first sections deals with the state of health in Madhya Pradesh. Covering different indicators of health, and related issues such as nutrition, sanitation, drinking water etc., this section puts forward the picture of health. Attempt is also made to highlight, gender, social and regional differences within the state. The next section talks of the institutional response to health, the government health services, the role of the private sector, and tries to highlight major policy and programmes in health, with comments on their efficiency and impact. The third section deals with the challenge of health.

2. State of Health

The state of Madhya Pradesh has recently (2000) been divided into Madhya Pradesh and the newly carved state of Chhattisgarh. Information and data available for most health parameters till recently was for the undivided state of Madhya Pradesh. While time series data pertaining to the new state of

1. Provisional Population Totals, Census of India 2001, Registrar General of India, New Delhi.
2. India's population density is 324 persons per square kilometre while that of Madhya Pradesh is 196 persons per square kilometre in 2001 (Census of India 2001).

Madhya Pradesh is not available, some data is now available for latest years on crucial health indicators, or is just becoming available, and shall be used as and where possible.

2.1 Life Expectancy and Death Rates

Life expectancy at birth (e^0)[3] is the most comprehensive indicator of health. A better health status can be safely assumed to give a better life expectancy to people. The latest estimate for Life Expectancy at Birth in Madhya Pradesh was 55.2 years for the period 1992-96[4]. While this is a considerable jump from 47.2 years for the period 1970-75 and 49.0 years for 1976-80, it is far behind the national life expectancy of 60.7 years at birth. Within the state there are geographical differences in life expectancy, with rural life expectancy of 53.7 years substantially less than urban life expectancy of 63 years.

Male life expectancy in 1992-96 is little higher than that of females (55.1 years to 54.7 years). The female have biological superiority in terms of better survival and therefore to compare male and female life expectancies, we assume that female life expectancy should be about five years more than males. Therefore the near equal life expectancy of males and females in effect show that females in comparison to men do not enjoy an equal health status.

The death rate of Madhya Pradesh in 2000 was 10.2[5] per 1000 population, and this is 20 percent higher than the Death rate for all India. Over the last two decades there has been a sharp decline in the death rate from 15.2 in 1980 for the undivided state to 10.2 for the new state today. The death rate in rural Madhya Pradesh was assessed at 11.0, while urban death rate was 7.5.

Table 1: Estimates of Life Expectancy at Birth in Madhya Pradesh

Year	Total							
	Total				Male		Female	
	MP	India	Difference in Years	% age	Madhya Pradesh	India	Madhya Pradesh	India
1970-75	47.2	49.7	2.5	5.0%	46.3	50.5	47.6	49.0
1981-85	51.6	55.5	3.9	7.0%	51.5	55.4	51.9	55.7
1991-95	54.7	60.3	5.6	9.3%	54.7	59.7	54.6	60.9
1992-96	55.2	60.7	5.5	9.1%	55.1	60.1	54.7	61.4
Year	Rural							
	Total				Male		Female	
	MP	India	Difference in Years	% age	Madhya Pradesh	India	Madhya Pradesh	India
1970-75	45.7	48.0	2.3	4.8%	44.8	48.9	46.6	47.1
1981-85	50.0	53.7	3.7	6.9%	50.0	54.0	50.2	53.6
1991-95	53.2	58.9	5.7	9.7%	53.4	58.5	52.9	59.3
1992-96	53.7	59.4	5.7	9.6%	53.9	58.9	53.4	59.8
Year	Urban							
	Total				Male		Female	
	MP	India	Difference in Years	% age	Madhya Pradesh	India	Madhya Pradesh	India
1970-75	56.6	58.9	2.3	3.9%	57.1	58.8	56.3	59.2
1981-85	60.3	62.8	2.5	4.0%	59.4	61.6	61.4	64.1
1991-95	62.8	65.9	3.1	4.7%	61.1	64.5	63.0	67.3
1992-96	63.0	66.3	3.3	5.0%	61.6	64.9	63.4	67.7

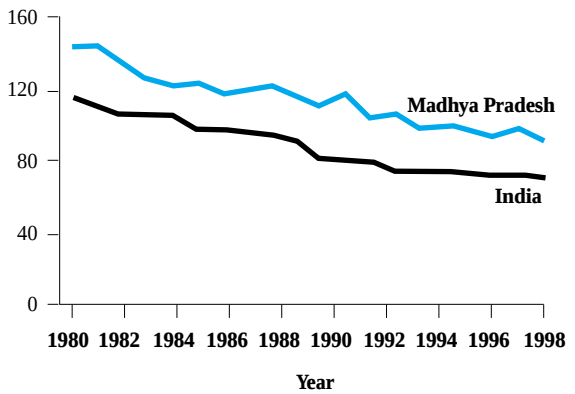
Source: Various Volumes of Sample Registration Scheme, Registrar General of India, New Delhi

3. Life Expectancy is the number of years a newborn is expected to live at the time of his or her birth. Life expectancy is different for different ages, and also changes over time, with medical and health systems improving and so on.

4. The best estimates for life expectancy are provided by the Sample Registration Scheme (SRS) of the Registrar General of India, and reference to any data from this scheme will be referred to as SRS.

5. This data pertains to the new state of Madhya Pradesh, SRS October 2001.

Graph 1: IMR in Madhya Pradesh and India: 1980 to 1999



2.2 Infant and child mortality

State of Infant and child mortality would perhaps be the best assessment of the state of basic health care, quality and reach of health delivery, general environment for health, crucial health determinants such as nutrition, sanitation, safe drinking water etc. It would also be a very good determinant of the performance of development initiatives that focus on poverty, backwardness, gender equity, and even empowerment. Infants (up to the age of one year) and children (up to the age of five) die prematurely of causes such as low birth weight, pneumonia, and certain vaccine preventable diseases such as measles, every one of which is preventable through primary health care interventions. While the state, and agencies involved with health have made provisions and extensive programmes and systems to enable immunisation of all children, provide them with vitamin A supplements, encourage paediatric care, the number of infants and children dying prematurely is very high.

The Infant Mortality Rate for the new Madhya Pradesh has been estimated by SRS[6] at 88 in 2000. The rural IMR is 94, while urban IMR 54. The national IMR at the same time was 68. Madhya Pradesh falls amongst the lowest in IMR compared with other states. The trends of IMR for the undivided Madhya Pradesh and India are depicted in Graph 1.

In terms of gender differences in IMR, SRS has recently also provided information for new Madhya Pradesh, but for the year 1999. Although the girl child is a stronger baby than her brothers, and should naturally have a lower mortality, this is not the case. The male and female IMRs were estimated at 89.6 and 89.5 for entire state, and 94.9 and 96.8 for rural areas. It is only in urban areas that the female IMR of 50.7 is lower than the male IMR of 59.6. The gap between female and male infant mortality has reduced as compared to the last decade which is an important step towards the direction of equity of status.

In the first year after birth, mortality of infants is categorised into three periods, and these are based on the quality and magnitude of risk faced by an infant in its various stages of growth. These are termed as early neo-natal[7], neo-natal[8] and post natal. Post natal and neo-natal mortality rates are presented in Table 2. The data shows that since 1980 post-natal mortality rate in Madhya Pradesh declined from 56.9 to 30.4 (decline by nearly half), accounting for 40 percent of infant deaths in 1980 to 32 percent of infant deaths in 1999. The decline in peri-natal mortality was much lesser, from 64 in 1980 to 56 to 1999, a reduction by just 12.5 percent. National Family Health Survey 2[9] (conducted in 1998-99) reported an infant mortality rate of 86 for the new Madhya Pradesh, and neo-natal mortality of 54.9, accounting for almost two thirds of all infant deaths.

There is encouraging decline in post-natal mortality, however the situation in case of neo-natal mortality remains a worry. Any reduction in mortality in this period would have a significant impact on survival of children. The main causes of early neo-natal and neo-natal mortality are tetanus, complications in birth, birth related injuries, sepsis, etc. These can be directly controlled by early tetanus immunisation of mothers during pregnancy and child after birth, and proper attendance during delivery, preferably institutional deliveries.

Table 2: Comparison of Child Mortality[10] Figures from National Family Health Surveys and Sample Registration Scheme (undivided Madhya Pradesh)

Survey and Year	Neonatal Mortality	Post neonatal Mortality	Infant Mortality	Child Mortality	Under 5 Mortality
NFHS 1 MP: 1988-92	53.2	32	85.2	49.3	130.3
NFHS 2 MP: 1994-98	54.9	31.2	86.1	56.4	137.6
Change in 7 years	103.2%	97.5%	101.1%	114.4%	105.6%
NFHS 2: India	43.4	24.2	67.6	29.3	94.9
SRS 1992	63.9	39.7	104		
SRS 1997	64.0	30.4	94		
Change in 5 years	100.2%	76.6%	90.4%		

Source : NFHS I and II, Various Volumes of SRS

6. Sample Registration Scheme of the Registrar General of India. This undertaken periodic surveys in every state to determine crucial health indicators.
7. Infant death within the first week of birth
8. Infant death within the first month of birth
9. Report on India – National Family Health Survey 2, 1998/99, International Institute for Population Studies, Mumbai
10. Child Mortality is the probability of dying between the first and fifth birthday.

Immunisation Schedule for Children	
At birth	BCG
1_ Months	DPT – I, Polio – I
2_ Months	DPT – II, Polio – II
3_ Months	DPT – III, Polio – III
9 Months	Measles
18 Months	DPT Booster, Polio Booster
5 Years	DT

The child mortality rate of Madhya Pradesh assessed in the NFHS 2 survey was 56.4, nearly double of the national average. The age specific mortality rates provided by SRS also show a similar picture.

Factors behind Infant Deaths

An attack on high infant and child mortality in particular has been led by programmes for universal immunisation, promoting and ensuring hygienic and safe delivery practices, promoting better natal and child care etc. National Family Health Survey 2 shows that in 1998 in Madhya Pradesh only 22.4 percent children received the entire dosage of vaccines, indicating nearly eighty percent of children in Madhya Pradesh are potentially vulnerable to preventable diseases.

The recently conducted multi-indicator cluster surveys and coverage evaluation survey results are encouraging, and they confirm that the percentage of fully immunised children has gone up to 50%, showing a jump of nearly 25 percentage points and an improvement in access of immunisation services.

The NSS survey data shows that it is easier to ensure that infants receive their first dose in the case of multiple dose vaccines. There is a lot of dropping off of infants for each successive dose. Children, who receive the first dosage, start missing out on further doses subsequently.

Diarrhoea is a common disease afflicting children. In the control of diarrhoea, basic oral re-hydration is the best method. This form is also promoted through state wide promotion of ORT, which aims to increase awareness amongst women and within the community on dehydration from diarrhoea, how to treat it and simultaneously ensure widespread availability of Oral re-hydration salts. NFHS 2 gives an idea of the impact of this and other associated programmes. In 1998/99, while 23 percent children aged up to 3 years had suffered from diarrhoea within a fortnight of the survey, 30 percent of these children were given oral re-hydration salts, whereas 46 percent received some form of oral re-hydration therapy.

Post birth, infants and children need regular paediatric care. NSS 52nd Round found that 57 percent children in Madhya Pradesh were registered for paediatric care. Of the children going for paediatric care, 67.5 percent did so with a hospital, 16 percent with a doctor, and another 16 percent with an ANM or local health worker. The reach of paediatric care clearly needs to be doubled covering every single child.

Table 3: Estimates of NFHS 2 and NSS 52nd Round on Children Receiving Vaccination, 1995-96

Vaccination	NSS 52nd Round		NFHS 2	
	Age of Child	Children who never received vaccination (NSS) – 1995/96	Vaccination for ages 12-13 months	Children who did not receive vaccination (NFHS2) – 1998
Measles	0-4	43.4	Measles	64.5
OPV	0	47.3	Polio 1	37.1
	1	21.8	Polio 2	43.0
	2	19.9	Polio 3	53.1
	3-4	23.1		
BCG	0	35.3	12-23 months	35.1
	1-4	20.4		
	0-4	24.1		
DPT	0	47.1	DPT 1	38.7
	1	24.2	DPT 2	46.5
	2	22.9	DPT 3	56.3
	3-4	29.0		

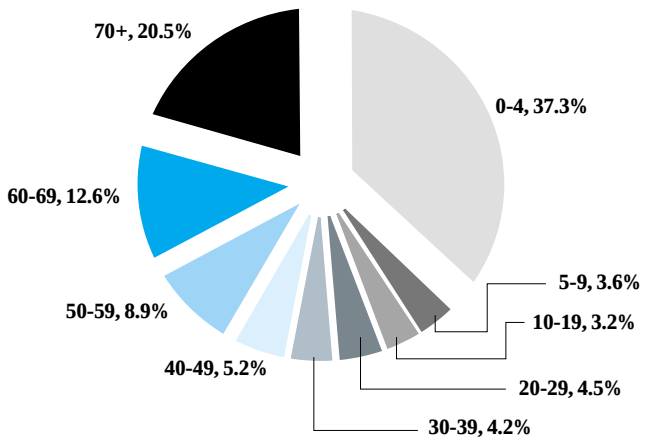
Source : NFHS2 and NSS 52nd round

2.3 Age Specific Death Rates

If we analyse information on age specific death rates with estimated population in these age groups, it tells us about the age groups where more deaths are taking place (see Graph 2) The maximum deaths occur in the age group of 0-4, a share of 37 percent of all deaths. If for a moment we accept that all deaths in the age group 50 and below are the main concern for the health system, then the child deaths (0-4 years) make up for 62 percent of such mortality. Any attempt to improve health will therefore have to re-emphasise and focus to address pre-mature mortality between the ages of 0-4 years with priority.

A comparison of the age specific death rates for India and Madhya Pradesh in Graph 3 shows that the substantial difference in death rates between India and Madhya Pradesh is up to the ages 0-24 years. The difference in death rates remains more moderate after that. The high differential in early years clearly points out to the main areas of weakness in the health of the state.

Graph 2: Deaths by Age Group in MP, 1996



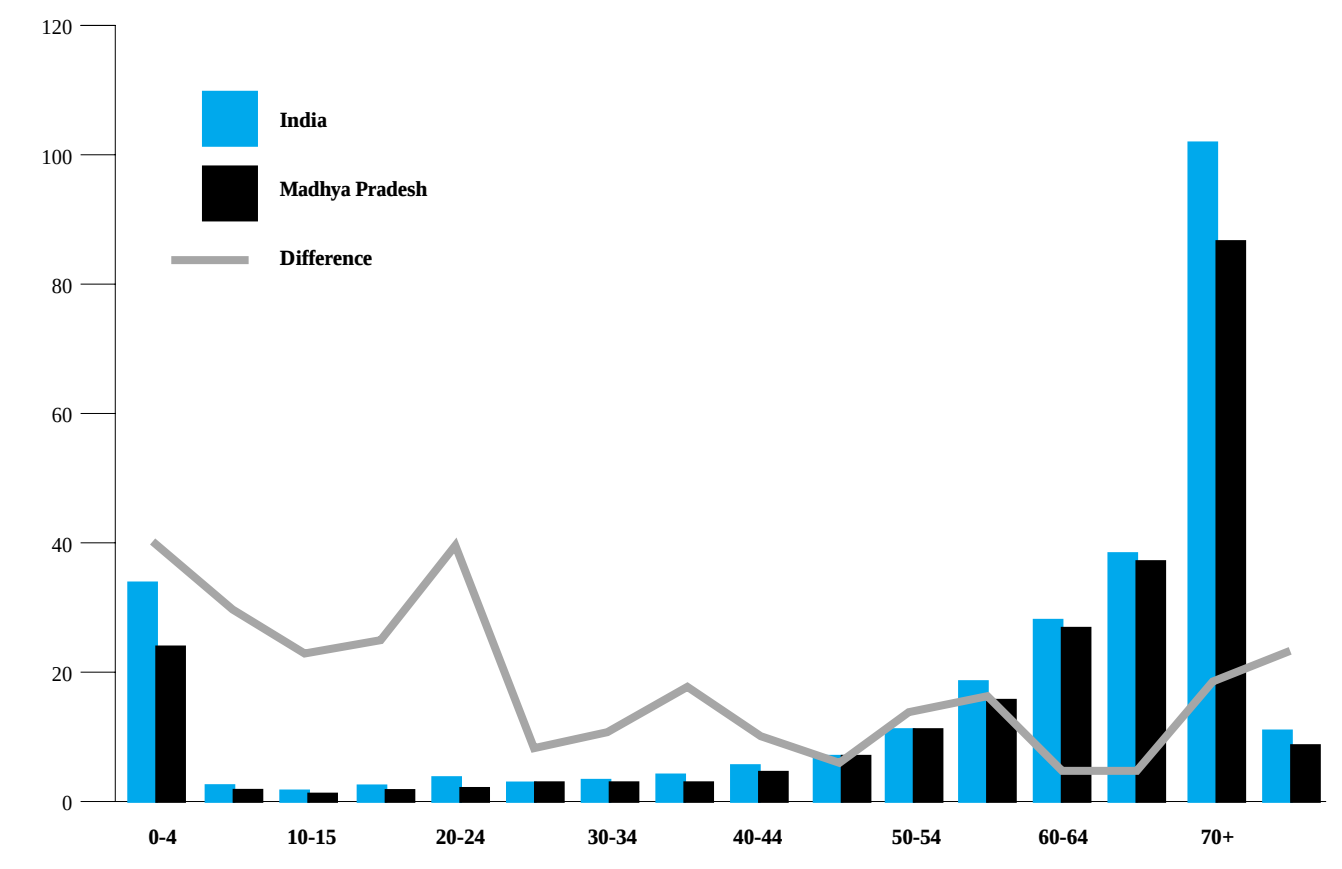
What are the causes of such high mortality in these early years? There is lot of evidence to show the causes – we have seen evidence of poor immunisation above, and we will see later in this chapter that poor nutrition, poor medical and general care during childhood, neglect of girl child and poor infrastructure in terms of road network are significant contributory factors.

2.4 Fertility, Birth Rates and Maternal Health

The fertility rate in Madhya Pradesh for 1997 was 4.0[11], much higher than national Total Fertility Rate (TFR) of 3.3, and far from the targeted net replacement rate of TFR of 2.1. At the current rate of decline of TFR, it will take at least another thirty years for Madhya Pradesh to achieve a net replacement rate of 2.1 (the case is similar for rural Madhya Pradesh). The Total Fertility Rates for rural Madhya Pradesh was 4.4, and 2.6 for urban areas.

In Madhya Pradesh the maternal mortality rate was 498

Graph 3: Age Specific Death rate - MP and India, 1996



11. SRS Estimates for 1997

deaths per 1,00,000 live births (all India was 408) according to SRS in 1998. Let us take a look at the situation of health services for women and pregnant mothers.

The 52nd survey of NSS in 1995/96[12] found that 41.7 percent pregnant women were actually registered for pre-natal care in Madhya Pradesh. The most important source for pre-natal care of pregnant women was public hospitals (43 percent) and Primary Health Centres (PHC) (42.6 percent) in rural areas and public hospitals (56.3 percent) in urban areas. In terms of pre-natal medical services, only 27 percent pregnant women had received both the required dose of tetanus toxoid and 40 percent had received IFA tablets. Only 16.4 of all deliveries were in a health institution in Madhya Pradesh. Further, 36 percent deliveries did not have any attendance during delivery (39 percent in rural Madhya Pradesh). At the current birth rate, we can expect that over six and a half lakh children born in a year are delivered without "proper" attendance. This large number of unattended deliveries would explain to a large extent the one and a half lakh plus infant deaths that take place in Madhya Pradesh in current years.

The NSS findings are supported by the NFHS 2 survey in 1998, in which 55 percent mothers received two or more doses of tetanus toxoid, and almost half the mothers received iron and folic acid tablets or syrup. About 11 percent mothers received antenatal check up through home visit, and another 51 percent mothers received antenatal check up outside home.

It is evident that the number of women seeking pre-natal basic care is low, number of women protected from tetanus and anaemia is low, and a large number are exposed to risks of child birth. Another contributing factor to women's health is low age at effective marriage. NFHS 2 found that age at effective marriage in rural Madhya Pradesh is was 15.5 years with average age of first born 18.1 years. Low age at effective marriage puts girls at risk of motherhood in early ages.

2.5 The Disease Burden

Exact rates of morbidity or affliction of diseases are difficult to estimate. There is information on morbidity rates for diseases handled through vertical programmes of Government of India through their MIS systems. Some of these diseases are malaria, tuberculosis, leprosy, and blindness.

Some indirect measures are available from the NHFS survey and NSS 52nd Round. NSS gives three estimates from its survey. It found that nearly one out of every twenty five persons in rural Madhya Pradesh was ill the period of fifteen days preceding the survey. Applying this percentage to population size, we find that the number of ill at any point of time would be approximately eighteen lakhs in rural Madhya Pradesh. The data from NSS however does show that the persons reporting ailments are amongst the lowest compared to the other major states in India.

Table 4: Rural Persons Reporting Illness, NSS 52nd Round

Percentage persons reporting any ailment during the last 15 days by sex for all types of ailments

	Male	Female	Person
India	5.4	5.7	5.5
Madhya Pradesh	4.0	4.3	4.1

Source: Morbidity and Treatment of Ailments NSS Fifty-second Round

Table 5: Percentage of Persons Suffering from Diseases, NFHS 2, 1998

Morbidity

	Percentage of persons suffering from:				
	Asthma	Tuberculosis	Medically treated tuberculosis	Jaundice during past 12 months	Malaria during the past 3 months
MP	2.273	0.602	0.520	1.927	10.015
India	2.468	0.544	0.432	1.361	3.697

Prevalence of acute respiratory infection, fever and diarrhoea

	Percentage of children under age 3 years suffering in past two weeks from:				
	Cough accompanied by fast breathing (ARI)	Fever	Diarrhoea		Percentage with ARI taken to health facility or provider
			Any diarrhoea	Diarrhoea with blood	
MP	29.2	31.0	23.4	4.3	57.9
India	19.3	29.5	19.2	2.6	64.0

Source: NFHS- 2

The morbidity level of children from acute respiratory infection, diarrhoea and fever is in the second section of Table 5. While nearly quarter children suffer from diarrhoea at any point of time, thirty percent have symptoms of acute respiratory infection. The NHFS survey found that about half of the children with ARI did not receive health care from any health facility or health provider, and ARI and related infections are the common killers of infants and children.

12. Sarvekshana, 82nd Issue, NSSO, Government of India, page 31

3. Determinants of Health

Health is determined by many factors that are personal, economic and social. It is convincingly argued that the most crucial determinant of health is poverty. We shall not dwell into poverty directly here, but discuss more direct determinants of health, which are also associated with poverty — nutrition, sanitation, drinking water etc.

3.1 Nutrition

The nutritional status of any population is a complex and composite entity, being a reflection of overall socio-economic status and stratification, livelihood and food security, intra-household food distribution patterns, food related practices and dietary habits. In addition, the effectiveness of various nutritional supplementation programmes, including those for micronutrient supplementation, affects the nutritional status of a community.

3.1.1 Household food expenditure

The disposable income available to a household, and the related expenditure is one of the most important determinants of the quantity and quality of the household's food intake. In this context, the Mean Per capita Expenditure per month for rural India is Rs. 287.1. The situation of Madhya Pradesh in comparison to other selected states is shown is Table 6.

What emerges from an All-India comparison is that Madhya Pradesh has *the lowest per capita expenditure on food* amongst all the Indian states. This is primarily a manifestation of widespread poverty and lack of livelihood security, and is arguably the most important factor, responsible for determining the poor nutritional status of people in the state.

Table 6: Estimated Per Capita Expenditure (Rs) per month for Selected States

State	Food expenditure	Non-food expenditure	Total
Madhya Pradesh	128.6	79.4	208.0
Orissa	145.2	65.4	210.6
Bihar	151.6	66.5	218.1
Uttar Pradesh	192.5	113.4	305.9
Rajasthan	243.5	166.8	410.3
Gujarat	191.5	99.6	291.1
Punjab	320.3	234.2	554.5
All India	183.3	103.8	287.1

Source: NCAER, India: Human Development Report, 1999

3.1.2 Availability of Food

Per capita consumption of food grains is one key indicator linked to food security. In this context, Madhya Pradesh has a lower per capita food grain consumption level (13.5 kg. per month). The combination in Madhya Pradesh of low annual per capita income (Rs. 4166) and low food grain consumption is not positive at all for a good healthy population, and it is unlikely that the basic caloric requirements are met by other, non-food grain sources. This tends to indicate an overall deficit of food intake. On the other hand, certain states with a comparatively higher annual per capita income, such as Kerala (PCI - Rs. 5778), Gujarat (PCI - Rs. 5288) and North-eastern states (PCI - Rs. 5070) also have somewhat low food grain consumption but this is mainly because of dietary practices which favour non-grain food intake.

Table 7: Per Capita Food Grain Consumption and Utilisation of PDS for Selected States

State	Per capita food grain consumption per month (kg)	Quantity of cereals (kg) bought from PDS per hh / month	Percentage requirement of cereals met by PDS
Madhya Pradesh	13.5	15.7	20.4
Orissa	16.4	18.6	16.7
Bihar	14.8	49.5	29.2
Uttar Pradesh	15.2	33.4	24.5
Rajasthan	17.6	33.1	14.7
Gujarat	10.1	17.3	18.1
Punjab	14.3	23.4	5.5
All India	14.3	19.0	23.5

Source: NCAER, India: Human Development Report, 1999

3.1.3 Food intake among vulnerable groups

Given this background of household food expenditure, we may briefly examine the situation of food intake by various vulnerable groups, particularly women and the tribal population, especially tribal children.

Table 8: Women's Frequency of Consumption of Specific Foods in Madhya Pradesh

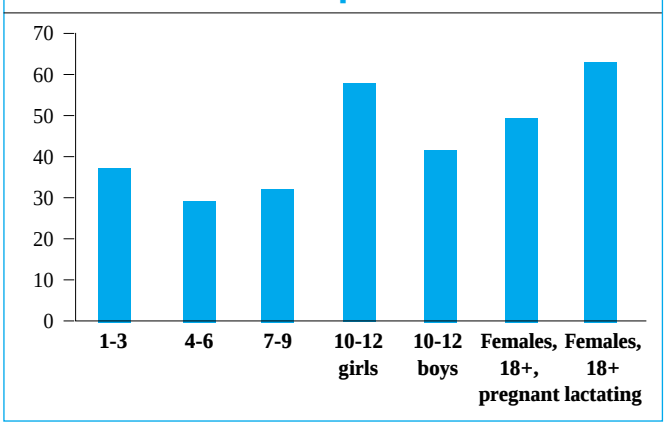
Type of food	Daily	Weekly
Milk or curd	20.3	12.1
Pulses or beans	43.0	36.9
Green, leafy vegetable	40.9	40.1
Other vegetables	53.0	33.1
Fruits	5.0	17.6
Eggs	0.9	10.8
Chicken, meat or fish	0.5	10.7

Source: NFHS –2, Madhya Pradesh (National Family Health Survey, 1998-99)

Regarding nutrient food items, somewhat less than half of women consume pulses or green leafy vegetables daily. Since these are the major sources of protein and several vitamins and minerals in the usual Indian diet, a less frequent intake (weekly or less), which is the pattern for the majority of women, is not likely to be adequate. Other nutritious foods like milk/ curd, fruits and non-vegetarian foods are consumed much less frequently. Milk or curd is consumed either daily or weekly by only about one-third of women.

The tribal or *adivasi* population of the state is especially vulnerable regarding food security and food intake, for a variety of reasons. One major factor is the process of alienation from traditional natural resources, which many such communities have undergone in the previous decades, due to various reasons such as deforestation, land degradation etc. Additional stresses due to drought may then contribute to tipping the balance critically towards severe food insecurity (see Box on Drought and Nutrition in West Madhya Pradesh).

Graph 4: Adequacy of Calorie Intake in Tribal Population



Source: National Nutrition Monitoring Bureau, NIN : Diet and Nutritional Status of Tribal Population, Report on First Repeat Survey, 2000

Among all the vulnerable population groups, inadequacy of protein/ calorie intake is quite striking. Looking at the groups most at risk, namely the pre-school children and children below 10 years of age, we find that *only about one-third of these tribal children receive a diet adequate in calories and protein*. Similarly, among elder children (10-12 years) and pregnant and lactating women, only around half of the tribal population in these groups has adequate caloric and protein intake.

It may be noted that an intake of *less than 70% of the recommended daily allowance* constitutes a serious dietary deficiency. However, about one-fourth of tribal children do not receive even this bare minimum cereal intake, exposing them to the risk of severe malnutrition (see Table 9).

Table 9: Adequacy of Intake of Major Food Categories – Tribal Children in Madhya Pradesh

	Age 1-3 years >= 70% RDA*	Age 4-6 years >= 70% RDA*
Cereals and millets	77.4	77.2
Pulses	35.0	45.8
Leafy vegetable	11.1	11.4
Other vegetable	32.4	31.4
Roots and tubers	39.7	36.8
Milk and milk prod.	0.3	0.9
Fats and oils	3.9	0.9
Sugar and jaggery	0.5	0.2

*Recommended daily allowance

Source: National Nutrition Monitoring Bureau, NIN : Diet and Nutritional Status of Tribal Population, Report on First Repeat Survey, 2000

3.1.4 Nutritional status of women

With this background, we can look at the nutritional status of women in Madhya Pradesh, and also examine variations and disparities among various sections of the population of women. Special emphasis is required relating to tribal women,

Table 10: Nutritional Status of Women in Madhya Pradesh

Background Characteristic	% of women with BMI below 18.5
1.Residence	
Urban	28.2
Rural	41.8
2.Region	
Vindhya	25.0
Central Madhya Pradesh	30.5
Malwa Plateau	36.3
South Central Madhya Pradesh	47.1
South Western Madhya Pradesh	36.9
Northern Madhya Pradesh	33.8
3. Caste/Tribe	
Scheduled Caste	39.9
Scheduled Tribe	49.2
Other Backward Class	37.4
Other	27.4
Total	38.2

BMI: Body Mass Index; a BMI less than 18.5 denotes under nourishment

Source: NFHS –2, Madhya Pradesh (National Family Health Survey, 1998-99)

because of their socio-economic situation.

Given the information about women's intake of nutritious foods discussed above, it is not surprising to note that 38.2% of women in Madhya Pradesh are undernourished and hence some grade of Chronic Energy Deficiency. However, the disparities among various social strata are responsible for even higher levels of under nutrition. Rural women are one-and-half times more likely to be undernourished than urban women. There are significant regional disparities too, with women from the 'South Central' area faring much worse than those from Vindhya and Central Madhya Pradesh. And finally, prevalence of under nutrition among tribal women is almost twice of those in the 'other' category.

3.1.5 Nutritional status of children

Anthropometric indices such as Weight for age (indicating proportion of underweight children) and Height for age (indicating proportion of stunted children) are commonly used to assess the nutritional status of children in a population. According to both Weight for age and Height for age, about half of the children in Madhya Pradesh are malnourished and one-fourth are severely malnourished. Again, there are significant social disparities among social strata. Proportion of underweight (58.4%) and stunted (54.3%) children in rural areas is much higher than that in urban areas, and similarly tribal children are worse off compared to those from 'other' group. However, there do not appear to be major regional disparities in this regard.

Table 11: Nutritional Status of Children in Madhya Pradesh

Background Characteristic	Weight for age Percentage of children		Height for age Percentage of children	
	Below -3SD	Below -2SD	Below -3SD	Below -2SD
1.Residence				
Urban	19.5	44.3	19.6	39.8
Rural	25.7	58.4	30.9	54.3
2. Caste/Tribe				
Scheduled Caste	30.0	57.5	32.2	52.7
Scheduled Tribe	31.4	64.5	33.6	59.9
Other Backward Class	22.4	55.4	28.1	51.5
Other	14.5	40.5	18.5	37.2
Total	24.3	55.1	28.3	51.0

Source: NFHS –2, Madhya Pradesh (National Family Health Survey, 1998-99)

A further look at the nutritional status of tribal children in Madhya Pradesh confirms what we would expect from the data on food intake already discussed above.

Table 12: Nutritional Status of Children in Tribal Areas in Madhya Pradesh

Sex	Below -3SD		Between -3SD and -2SD		Total below -2SD	
	Wt.for age	Ht.for age	Wt.for age	Ht.for age	Underwt.	Stunting
Boys	42.5	53.0	31.6	21.7	74.1	74.7
Girls	41.3	54.1	32.9	18.2	74.2	72.3
Both	41.9	53.6	32.2	19.9	74.1	73.5

Source: National Nutrition Monitoring Bureau, NIN: Diet and Nutritional Status of Tribal Population, Report on First Repeat Survey, 2000

The NNMB survey shows that almost three-fourths of tribal children in Madhya Pradesh are underweight (74.1%) and stunted (73.4%). (This is somewhat higher than the NFHS proportions, perhaps because of sampling variation). What is more worrisome is the very high proportion of *severely underweight tribal children, at about 42%,* this being a group which is most vulnerable in situations of fluctuation of food supply or infectious illnesses.

In response to the problem of under nourishment, there has been sustained effort to reduce malnourishment. Simultaneously, the government set up a system of regular survey of children to assess the levels of nourishment amongst them. The data from these surveys over the period of last one year shows that there is reduction in malnourishment. In October, 2001, this survey of 61 lakh children found that while 52 percent children were moderately malnourished, and 5.3 percent severely malnourished. The survey in September, 2002, surveyed 59 lakh children and found that while moderately malnourished children were 53 percent, percentage of severely malnourished had dropped to 3 percent.

3.1.6 Anaemia among women and children

Iron deficiency anaemia is probably the most prevalent and significant micronutrient deficiency to be seen in our country, with major consequences for well-being and work efficiency. The prevalence of anaemia among women is an index, which reflects the combined impact of availability of nutrient foods to the household, gender-equity of food distribution within the household, and effectiveness of iron-folic acid supplementation through the health services. A high prevalence of anaemia in a population usually reflects an unfavourable situation regarding all these factors.

Data from the NFHS 2 survey shows that over half of the women in the state (54.3%) have anaemia, with one-sixth (16.7%) having moderate or severe anaemia, a little higher than the proportion of anaemia among women nationally (51.8%). Rural women are one-and-half times more likely than urban women to have moderate/ severe anaemia. There are some regional differences, with women in Malwa (38.2% anaemic) faring significantly better than their sisters

Drought and Nutrition in Western Madhya Pradesh

The nutritional status of any population is closely related to the food supply and food security of communities within that population. Given the context of varying degrees of drought in parts of West Madhya Pradesh during the years 1998 to 2000, it is especially relevant to understand the state of nutrition in this region and its relationship to health in the recent period.

The South-west monsoon 2000 brought 31% less rainfall than the average and Western Madhya Pradesh received only 65% of its normal rainfall. 22,490 villages in 32 districts of Madhya Pradesh were officially declared 'drought affected'. The number of drought affected people in the year 2000 comprised 26.17% of the states population.

In this setting, surveys in the drought-hit district of Barwani in West Madhya Pradesh conducted by CEHAT (Centre for Enquiry into Health and Allied Themes) in collaboration with local organisations give some idea of the impact that drought has had on nutrition in the region–

- A sample of 712 under-five children from two blocks were studied for their nutritional status based on 'weight-for-age'. Of these, 84% children were found to have some degree of mal nourishment, and 21.9% children had severe mal nourishment. These figures correlate with the findings of the special study report on nutritional status of tribal children by NNMB, who found 20.4% of the sample of tribal children in Madhya Pradesh to be severely malnourished
- A similar study of 132 adults showed 63% individuals to have a BMI of below 18.5, i.e. some grade of under nutrition. However 15% adults had a BMI of less than 16, indicating severe under nutrition (Chronic energy deficiency Gr. III) in this group. These proportions are somewhat higher for the figures related to tribal areas of Madhya Pradesh. According to the NNMB data collected from the tribal areas of Madhya Pradesh, 49% of the adults are undernourished (BMI < 18.5) and 8% are severely undernourished (BMI < 16).
- The impact of drought was observed clearly in these villages in the form of reduced dietary intakes, with reduction in non-cereal food items like pulses, vegetables, cooking oil etc. Some families also had significant reduction in the quantity of intake of cereals. A few families reported occasional consumption of famine foods like forest leaves and tubers during the height of the food scarcity due to drought.

One impact of the study process has been the subsequent dialogue between the 'Jan Swasthya Samiti', a local voluntary group, and the ICDS authorities. This is accompanied by a process of people's monitoring of ICDS services, to ensure better utilisation of Aanganwadi services by the tribal communities, which could have an impact in reducing malnutrition.

Sources- National Disaster Management Committee weekly drought report No. 10; copy of Madhya Pradesh memorandum of scarcity; Diet and Nutritional status of tribal population – report on first repeat survey by National Nutrition Monitoring Bureau, 2000; Article on pp. 38-39, SROTE science and technology features, Oct. 2001.

in South-Central Madhya Pradesh (59.5 % anaemic). Tribal women seem to be suffering the most, with almost three-fourths (70.3%) being anaemic and almost one-fourths (23.8%) having moderate or severe anaemia.

We see that *three-fourths of children in Madhya Pradesh are anaemic*, and strikingly, *over half of the children have moderate/ severe anaemia.* This high prevalence of anaemia cuts across all regions, though children from Northern Madhya Pradesh fare the worst with 85% being anaemic and almost two-thirds having moderate/ severe anaemia. Similarly, *among tribal children, almost two-thirds have moderate/severe anaemia*. However, there are hardly any significant urban-rural or gender differences in this regard.

3.2 Food Supplements

While household food intake is the main determinant of nutritional status, nutritional supplementation has an important role to play in ensuring minimum nutrient intake to vulnerable groups. Below we examine a few key supplementation measures, which have a direct bearing on the nutritional status of women and children.

Supplementation with Iron-Folic acid during pregnancy is the most widely practiced and institutionalised form of micro-nutrient supplementation, as part of the National Nutritional Anaemia Control Programme. This is one of the basic components of routine ante-natal care and has a significant role to play in prevention or correction of anaemia among women. However, it is important that Iron-FA is given and consumed for an adequate period, usually considered to be at least three months. Survey carried out by the NFHS 2 shows that in Madhya Pradesh, *about half (48.9%) women received Iron-FA during pregnancy, but only 38.8% received it for an adequate period.* Women in urban areas are one-and-half times more likely to receive Iron-FA during pregnancy than those from rural areas. *Only about one-third of tribal women received Iron-FA, and about one-fourth received it for adequate duration.*

A similar major supplementation programme relates to Vit. A, which has important consequences for visual health and resistance to infections among children. Supplementation with Vitamin A to pre-school children is the major programmatic form of micro-nutrient supplementation for children, in the form of the Vitamin A Prophylaxis Programme. A massive dose of Vit. A is to be given once in every six months to children between the age of 6 months and five years. In this context, we observe from data revealed by NFSH2 that only one in seven children in Madhya Pradesh received a dose of Vit. A during the last six months. The same report further also shows that in areas like Vindhya and Northern MP, this proportion was extremely low, less than 10% of children having received it.

3.3 Sanitation

3.3.1 Water and solid waste management

The infrastructure or facilities for ensuring proper waste water disposal in Madhya Pradesh are currently inadequate. The NSS 52nd survey undertaken in 1995/96 found that a third of the rural and a quarter of urban households had no waste water drainage system. To further compound this, 29 percent rural households had some sort of an "open kuccha" drainage system, whose efficiency in dealing with dirty water, ensure its swift flow, and prevent spillage and water logging is doubtful. Even in urban households, "open kuccha" drains serve 21 percent. The type of latrine is also directly connected to level of sanitation. In rural Madhya Pradesh in 1999, NSS 54th round[13] estimated that 94.5 percent used no latrine, and the state comes last amongst fifteen major states in India in use of latrine by rural households. Even in urban Madhya Pradesh in 1999, 45 percent households used no latrine.

The lack of adequate drainage adds onto problems like stagnant water, poor waste disposal, and with lack of toilet facilities, the chances of water and air contamination increase. In urban Madhya Pradesh, nearly fifteen percent people live in slums, and they would be specially subjected to dirty sanitary conditions, dirty stagnant water, poor drainage, lack of proper waste disposal, and unhygienic housing.

3.3.2 Household air pollution

NSS 49th round survey in 1993[14] showed that of the rural households in Madhya Pradesh in 1993, nearly 95 percent used leaves or straw or firewood for cooking, thereby exposing women to dangers from smoke from these sources of energy. Even in urban Madhya Pradesh, nearly 45 percent households used similar cooking fuel. Use of polluting fuels at home and general unsatisfactory hygiene in home would be one of the major contributing factors to the high prevalence of respiratory diseases found in the state.

3.3.3 Vectors

A significant piece of information from NSS 54th round survey was on number of households reporting an increase or decrease in the problem of flies, mosquitoes and foul odour over the last five years. These measures are a direct indicator of the menace of in-sanitary conditions and a cause of many of the disease infecting people of the state. The reports from rural households are somewhat better than what the urban residents find as far as increase in flies, mosquitoes and foul odour is concerned. A high 58 percent rural and 77 percent urban households reported that mosquitoes have increased over a period of five years. This widespread feeling that there has been an increase in flies coupled with lack of proper drainage and waste disposal does not augur well for a healthy environment.

If we convert the percentages to population, we see in Table 13 that while around 36 lakh people have benefited from a cleaner environment that has lesser flies and sixteen lakhs find fewer mosquitoes, 2.68 crores live with more flies and 3.8 crores suffer more mosquitoes in the state.

3.3.4 Drinking water

With water borne disease reported to account for a very large share of diseases suffered by people, adequate and safe drinking water is crucial for a healthy population. Let us first get an idea of the status of drinking water in Madhya Pradesh.

We get an idea of the adequacy of drinking water by households from NSS 54th round[15] conducted in 1998. About 13 percent rural households and 16 percent urban households in Madhya Pradesh appear to have insufficient drinking water. Reading it the other way, the number of people now with access to safe drinking water is very high in Madhya Pradesh. The progress over the last years in further public provisioning

Table 13: Households Reporting Increase or Decrease in Problem of Flies, Mosquitoes and Foul Odour over Last Five Years, 1999

Area	Flies		Mosquitoes		Foul Odour	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
Rural Areas	43.8%	7.3%	57.9%	3.5%	22.1%	8.3%
Urban Areas	46.2%	2.2%	76.5%	0.4%	40.8%	2.3%
Population	2,68,35,144	35,86,882	3,79,58,065	16,14,299	1,63,56,295	40,45,809
Percentage	44.4%	5.9%	62.9%	2.7%	27.1%	6.7%

Sarvekshana, 82nd issue, January-March, 2000, NSSO, Government of India, page 81

13. Sarvekshana, 82nd issue, January-March, 2000, NSSO, Government of India
14. Sarvekshana, 78th issue, January-March, 1999, NSSO, Government of India
15. Sarvekshana, 82nd issue, January-March 2000, NSSO, Government of India

of safe drinking water in the villages has been very encouraging. Over the last eighteen months, from just a little less than ten thousand habitations (out of 1.11 lakh overall habitations) without full access to safe drinking water, only twenty six hundred habitations remain without proper access to drinking water.

However, there is very little really known on the quality of drinking water. But we can use other measures to get an indirect idea of the possible quality of drinking water.

The source of drinking water would determine to a large extent, what is the surety of safe drinking water for households. The data from NSS 54th round[16] in 1998 tells that rural households use tube well or hand pump (52 percent) and wells (39 percent) maximum. In the case of both, maintenance and cleanliness of the source determines water quality. The same survey further finds that only 29 percent rural households used some form of cleaning the water before drinking, by filtering with plain cloth (24 percent), some other form of filtering (3 percent), and 1.3 percent chemically treated the water before drinking it. In urban areas, 36.5 percent households filtered drinking water before drinking. In both the cases there is very little precaution taken by households to treat the water in some manner before consumption. With fairly poor drainage systems, wells and hand pump providing most of the drinking water, and no use of latrines, water quality cannot be assumed to be satisfactory directly from its source.

4. The Instituttional Response

In the first part of this chapter we have travelled some distance reviewing the state of health of the people of Madhya Pradesh. Let us now move towards the response - the thinking behind health service system, and the health services themselves.

The Bhore Committee Report (Health Survey and Development Committee Report, 1946) laid down the blueprint of the rural and urban health system in the entire nation. The basic focus of this report was to set up a primary health care system across the country to ensure availability of "basic health care" for every individual, in the context of a predominant rural population. The recommendations of the report make for a comprehensive package of preventive, promotive and curative health care and a strategy of involving people in the health system itself. This report was adopted by the Government of independent India and formed the basis of setting up an extensive health care delivery system across the entire nation, including for Madhya Pradesh.

A landmark in development of health policies and accompanying focus world-wide was the International Conference on Primary Health Care (PHC) held in Alma Ata in 1978. This conference evolved the Alma-Ata declaration which called for extending health to all people and also provided a new definition to the word 'health' itself. It affirmed that Primary Health Care was a critical option and should be the focus for all health systems. India was a signatory to this conference and its goals. The "Health for All by 2000" thrust has guided much of our health interventions ever since. It also formed the core thrusts of the National Health Policy of 1983. The Madhya Pradesh Government health programmes have been influenced by both of these.

However this reaffirmation of Primary Health Care was immediately challenged by many international agencies and health initiatives that spoke of "Selective Primary Health Care" (SHPC). The SHPC approach argues that primary health care is too expensive, and a more effective method is to select and prioritise a limited number of major diseases and attack them through specific programmes. The focus was on delivering medical care for selected diseases rather than encouraging participation by communities in defining their health needs, and professionalise rather than de-professionalise health. SHPC was a technology-focussed approach, where delivery of health care through health professionals was the focus, it detracted any society or community and medicine interface, and ignored aspects of community empowerment vis-à-vis medical services. This approach was soon adopted by international development aid agencies, including those of the United Nations.

Primary Health Care as the main vehicle to deliver good and effective medical care got subjugated by programmes and initiatives that were disease specific. This is the case both internationally and nationally. In India, a study by Duggal and Antia (1995) for instance, have noted that the Primary Health Centre and Sub-Centre networks are concerned more with family planning and meeting the targets of national disease control programmes than tackling comprehensive Primary Health Care.

A series of national level programmes catalysed by funding from bilateral and multilateral support institutions have evolved which promote the selective vertical disease control strategy. This approach has been justified on the basis of efficiency, with a techno-managerial approach, and very little involvement of the community, which is taken as a passive recipient of their benefit. A major corner stone of the Alma Ata declaration was equity and the community was emphasised as an agent of change. This approach has dropped both these key components.

A further change came in the 1990s, when the country went through an economic crisis resulting in new economic policies which promoted liberalisation, privatisation and globalisation. Conditionalities of international funding agencies during this time led to some downsizing of public health allocations and health expenditures with focus on harnessing other resources and involvement of private sector.

The above factors describe the mosaic in which the health care response of the state has to be contextualised. These

16. Sarvekshana, 82nd Issue, January-March 2000, NSSO, Government of India

factors of overall commitment to primary health care; selectivisation and verticalisation of national health programmes; the new economic context; and the downsizing of health investment; has led to a series of health care strategies not adequately integrated but each in their own way trying to reach health care primary or selective to those who need it in an in-equitous situation with additional problems peculiar to the state of access and cultural diversity.

4.1 State Policies and Initiatives

Government of Madhya Pradesh has been working on evolving a medium term health strategy, but it is still in its drafting form. The policy framework for health in then guided by the national level health policies, and some specific policies and new initiatives that the state has evolved, which have a direct and indirect bearing on health. We briefly discuss them below.

Having a direct bearing on health in the state are the Population policy, the Nutrition policy, and the Women's policy. The salient points of the population and nutrition policy are given in the box below.

The state has broadly followed the formulations of the National Health Policy and the National Health Programmes. The Rajiv Gandhi Mission for Community Health described later is a beginning of such a policy statement. For the time being, the health policies though unstated separately broadly focus on three major areas:

1. Improving infrastructure for primary and secondary health care;
2. Disease control and public health;
3. Reproductive and Child Health Programme

We shall cover the infrastructure issues in a separate section later in this chapter. Here we concentrate on the second and third aspects.

Population Policy Goals

- Total Fertility Rate to 3.0 by 2005 and to 2.1 by 2011.
- Maternal Mortality to 330 by 2005 and to 220 by 2011
- Infant Mortality Rate to 75 by 2005, and 62 by 2011
- Child Mortality Rate to 90 by 2005 and to 65 by 2011

Objectives of State Nutrition Policy

- To bring 15 percent decrease in moderate level malnutrition and 10 percent decrease in severe level malnutrition found in children less than five years of age.
- To bring 10 percent decrease in cases of low weight at birth.
- To eliminate the problem of blindness due to lack of Vitamin 'A'.
- To bring 20 percent decrease in problem of anaemia due to lack of iron, amongst pregnant women.

4.1.1 Disease Control and Public Health

While the primary health centres and hospitals provide basic and curative health services, there is also a vast network of programmes and agencies that work directly for specific diseases. These include the major centrally sponsored disease control programmes, popularly referred to as vertical programmes. Their sheer size, investments, control by the Government of India, have made these programmes large and central to the states health effort. They play a major role in the health system and absorb time, effort, planning and co-ordination systems of the state to a large extent. Five major programmes are:

1. Revised National Tuberculosis Control Programme (RNTCP) (covering the entire state)
2. National Leprosy Elimination Programme (The objective is to eliminate disease in state by 2003 and integrated into general health system by 2003).
3. National Programme for Control of Blindness (Aims to control blindness due to cataract which accounts for 70-80% of total blindness)
4. National Anti-Malaria Programme
5. National AIDS Control Programme (supports the Madhya Pradesh State AIDS Control Society to tackle HIV/AIDS problem in the state)

These programmes have been somewhat successful in reducing the incidence of leprosy, blindness, improved detection of tuberculosis, and are helping in creating awareness on HIV/ AIDS. Tackling many of these diseases poses a stiff challenge to public health, since they have specific problems associated with them. These include stigma (associated with tuberculosis, leprosy and HIV/AIDS), duration of treatment (treatment of tuberculosis and leprosy takes a long time, and patients often discontinue treatment), distance and access to treatment facilities for patients (TB and leprosy centres are few and far, and tribals and women have special problems of access), migration by patients, especially for tribals who migrate (patients migrate in search of work discontinuing treatment).

The growing private sector has not been an effective medium to tackle these diseases. The private practitioners hardly ever send patients to District Centres or PHCs/ CHCs and when they do, it is often found to be too late. The standard drug regimes are not necessary followed, and cases are not regularly recorded and followed up[17]. Counselling by the doctors to TB and HIV patients is usually poor.

4.1.2 Reproductive and Child Health Programme

The family welfare and RCH formed the second major component of health policy and consists of a large number of programmes that respond to the complexity of the situation. The main components are given in the box.

17. A Report on National Consultation on Tuberculosis, VHAI, 1994

Reproductive and Child Health Programme

a) Meeting the needs for contraception and couple protection
b) Behavioural change communication strategies
c) Prevention of mis-use pre natal diagnostic techniques (PNDT Act)
d) Social mobilisation for increasing age of marriage
e) Establishing infertility diagnostic facilities
f) Community based distribution of contraceptives
g) Adolescent health education
h) Management of reproductive track infection (RTI)
i) Immunisation of children for six preventable diseases
j) Reducing MMR due to high risk pregnancies
k) Strengthening of first referral units (FRUs)
l) Urban maternity and counselling centres
m) Improving new born care
n) Improving registration of marriage pregnancy birth centres.

These programmes are supported by the National RCH and Immunisation programmes, apart from the state's own contribution to them.

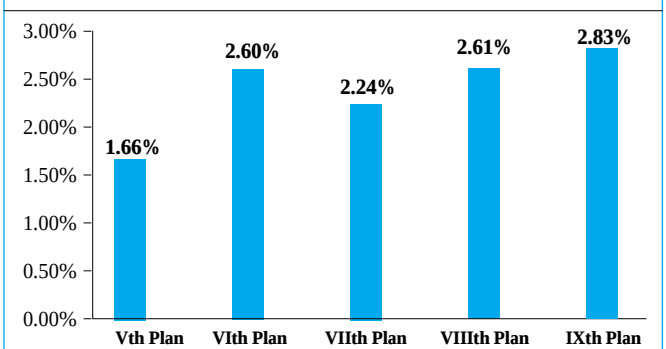
4.2 Health Care Financing and Health care expenditure

4.2.1 State Government Funds

Financial allocations in the health sector have shown a trend of decline or stagnation over the years, as per the state budget allocations. Taken at constant prices, there has actually been a decline in per capita costs.

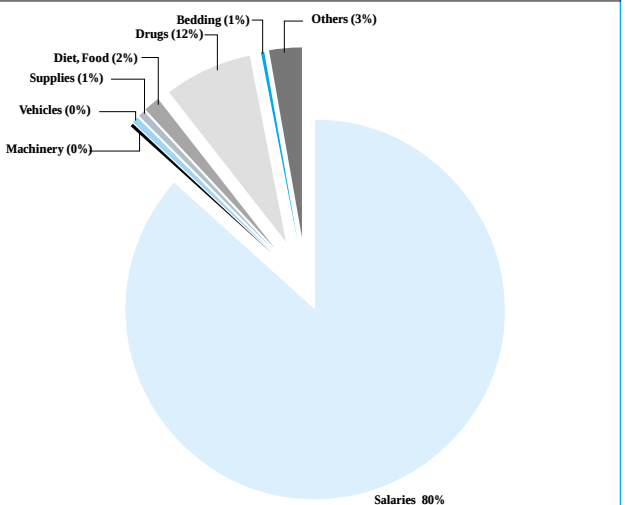
However, Government investments into the health sector have been gradually increasing in the plan allocations. The Graph 5 portrays the share of the resource allocations to the health and family welfare departments in five year plans from the Vth Plan. The allocations have been fluctuating but there is a gradual increase in last plans.

Graph 5: Outlays in Health Sector in State Five Year Plans

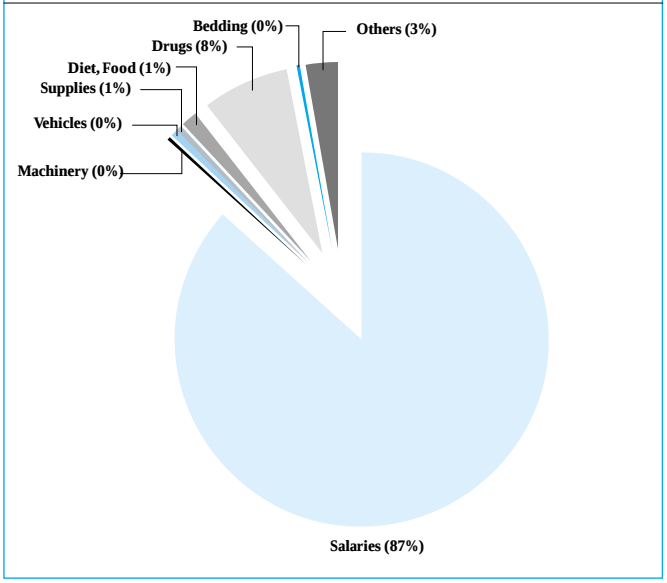


Source: National Nutrition Monitoring Bureau, NIN : Diet and nutritional status of tribal population, report on first repeat survey, 2000

Graph 6: Non Plan Expenditure by Items, 1990-91



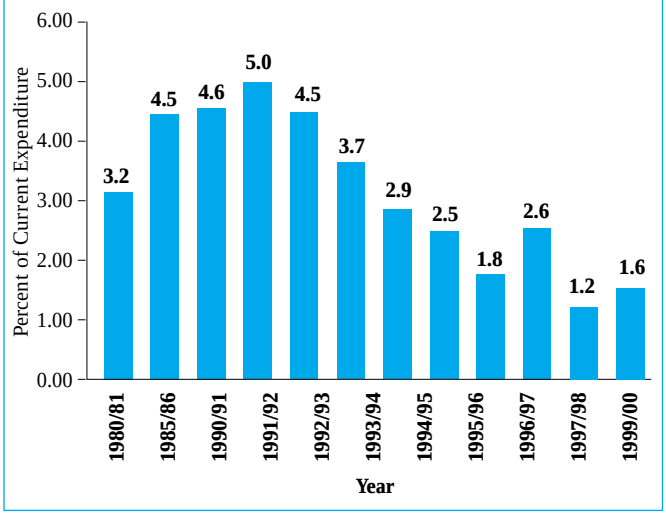
Graph 7: Non Plan Expenditure by Items, 1997-98



These allocations notwithstanding, there is a decline in per capita expenditure, and is evident from actual expenditure on the health sector in the state budgets. A study by the Asian Development Bank[18] on public sector reform shows that actual per capita expenditure on health has been going down in the 1990s. Per capita expenditure of the Government

18. "Madhya Pradesh Public Finance Reform – Final Report", Tata Consultancy Services, Asian Development Bank

Graph 8: Rates of Cost Recovery in Health



Health expenditure was Rs 21.18 at 1980-81 prices in 1990-91, and has gone down over the years to Rs 16.32 per capita in 1996-97.

The expenditures comprise cost of establishment, which are primarily salaries of existing staff. The ADB study indicates that the shares of salaries in total non-plan health expenditure in the state was 87 percent in the year 1997-98. There has been a steady increase in the share of salaries over the last decade in non-plan expenditure as stated in the Graphs 6 and 7.

The increase in the expenditure on items has been 92 percent in case of salaries from 1990-91 to 1997-98, but only 4.6 percent for drugs, 0.23 percent in machinery, and 0.39 percent in supplies.

5.4.2 Externally aided health projects

4.2.2 Externally Aided Projects

Apart from own and central funds, another source of funds for the state has been through externally aided projects. These programmes have been either focussed regionally or focussed on a particular aspect of health, and have not been aiming at more definite and structural impact in the health system. In fact this assessment of externally aided projects also forms part of the governments own current thinking (see the section on Swastha Jeevan Sewa Guarantee Yojana).

Centrally aided projects have actually resulted in moving the health sector away from comprehensive health care to selective health care. It has reinforced the vertical programmes and in fact created more of them. There is a strange situation of arguing for inter sectoral action in problem analysis and ending up with creating yet another vertical programme. This has emerged as a serious problem because it tends to make the sector forgo the benefit of horizontal linkages effected in the new dispensation of Panchayat Raj. Health sector needs extra-health sector action to be effective, and so an effective strategy would be to enlist them.

The Government of India has been equally responsible for promoting externally aided projects while paying lip service to decentralisation. Region specific problems of health redressal get low priority in such a situation.

4.2.3 User Charges

User charges have been offered as a manageable and effective means of financing the health systems. User charges are levied in government hospitals in cases of hospitalisation. The cost recovery levels have generally been abysmal. The current rates have been hovering from 1.2 to 2.5 percent over the last six years.

In recent years, the concept of Rogi Kalyan Samitis or patient welfare committees have come into play in the management of health centres across the state and have been quite helpful in generating user charges that are being utilised to modernise health centres and better patient care and facilities. More details on RKS are given later in this chapter.

4.3.3 Source of treatment and health care expenditure

One indicator of the weak and inadequate state of public health services in Madhya Pradesh is the fact that in a state with such a low per capita income, the vast majority of people are constrained to access medical care from the less affordable private sector. Some micro-studies show that non-availability of drugs, extra charging, indifferent behaviour, irregular availability of staff and other factors in the public health sector induce the poor to access private services.

Table 14: Source of Outpatient Treatment in Madhya Pradesh (in percentage)*

Rural			Urban		
Public	Private	Total	Public	Private	Total
16.74	70.52	87.26	13.67	71.6	85.27

*Some patients resorted to home treatment, medical stores etc. and hence the totals of Public and Private do not add to 100

Source: Health Care Utilisation and Expenditures in M.P., George Alex et al, FRCH, 1993

Table 15: Percentage Distribution of Ailments Treated in Inpatient and Outpatient Care Units by Source of Treatment, Madhya Pradesh 1986-87 and 1995-96

Year	Rural			Urban		
	Public	Others	Total	Public	Others	Total
(a) Outpatient Care						
1986-87	32.9	67.1	100.0	31.3	68.7	100.0
1995-96	27.1	72.9	100.0	20.4	79.6	100.0
(c) Inpatient Care						
1986-87	79.2	20.8	100.0	77.0	23.0	100.0
1995-96	53.3	46.7	100.0	56.0	44.0	100.0

Source: NSSO 1992, NSSO 1998.

According to this study in the early 90s, over 70% of outpatients in both rural and urban areas, were taking treatment from the private sector.

The time-trends in this regard as documented by NSSO show a significant and worrisome *decrease in utilisation of public health services*, for both rural and urban areas, and for both Outpatient and Inpatient care. The utilisation of 'other' sources (basically private care) has increased to above 70% in both rural and urban areas by the mid 90s. Similarly, utilisation of 'other' (basically private) sources for Inpatient care, which was only about 20% in the mid-80s has gone up to nearly half of such care by the mid-90s. This is a disturbing trend, which indicates weakening of quality or financial accessibility of public health services compared to private services. This is likely to result in both increase in costs and also greater risk of unnecessary and irrational therapy, often resorted to in order to boost private medical profits.

The per capita medical expenditure was found above Rs.125 per episode in both rural and urban areas, which may be prohibitively expensive for poor families.

The time-wise analysis based on comparing NSSO data for mid-80s and mid-90s shows overall a sharp rise in expenditure on medical care in almost all categories except public outpatient care in rural areas. The major rise in expenditure on 'other' (basically private) services – increasing from two-fold to six-fold in a decade – is a worrying change. But of even greater concern is the *dramatic rise in out of pocket spending on public medical facilities, especially for outpatient care in urban areas and inpatient care in all areas - rising seven to nine fold* within a decade, outstripping inflation related increases. This effectively indicates a significant degree of privatisation of public health services, with patients having to pay either user charges or costs of medications and supplies, at prohibitively high levels which would effectively deny the poor access to medical care even in public hospitals.

Table 16: Average Medical Expenditure per Ailment/Episode in MP (in Rs.)

Rural	Urban
137.67	128.86

Source: Health Care Utilisation and Expenditures in M.P., George Alex et al, FRCH, 1993

5. Institutional Health Resources

5.1 Health Services

The state government is the single largest health provider in Madhya Pradesh, especially when it comes to preventive care and public health issues. However, the direct role of government service providers is on a decline and a majority of people resort to private health providers, especially in rural areas for medical treatment.

The National Sample Survey[19] found that out of all non-hospitalised treatments, 23 percent in rural and 19 percent in urban Madhya Pradesh went to a government health facility, while 62 percent in rural and 75 percent in urban areas went to private sources. The previous NSS survey in 1986-87 had reported government sources treating 24 percent health service seekers in rural areas and 28 percent in urban areas. The use of public health services in case of hospitalised treatment is more than private sources, with the NSS 52nd Round reporting 53 percent rural and 56 percent urban patients using government health institutions in 1995/96. Overall, people are accessing private medical health services far more than public

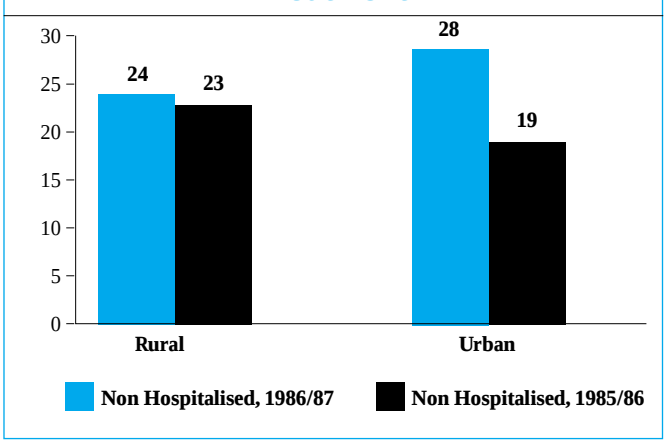
19. Morbidity and Treatment of Ailment, NSS 52nd Round July 1995-June 1996, NSSO, Government of India, November 1998

Table 17: Out of Pocket Expenditure (in Rs.) on Medical Care in Madhya Pradesh

Year	Rural			Urban		
	Public	Others	Total	Public	Others	Total
(a) Outpatient Care						
1986-87	105	85	95	65	82	75
1995-96	94	161	140	477	264	352
(c) Inpatient Care						
1986-87	249	699	438	197	587	419
1995-96	2207	3482	2191	1678	3889	2774

Source: NSSO 1992, NSSO 1998.

Graph 9: Use of Government Facilities in Treatment



services. Issues of efficiency of public health, perceptions about public health institutions, quality and accessibility of government health services, especially in rural health and for primary health needs, comparative costs of public and private health etc. combine to decrease the importance of public health institutions in curative health.

In preventive health, while no direct evidence is available, it can be assumed that public health bodies and schemes play a crucial role and perhaps are the only agencies involved in such tasks. NSS 52nd Round pointed out that in post-natal care, public hospitals and primary health centres took care of 77 percent mothers who went for post-natal care in rural and 74 percent in urban Madhya Pradesh. Out of the number of pregnant women registered for pre-natal care (42 percent), 78 percent used government hospitals or Primary Health Centres. If we take natal care as some kind of a surrogate for preventive care, it reinforces our assumption. Rural mother and child immunisation, and children's nutrition programmes will also be almost entirely under government health systems.

5.1.1 Government Health Services

The Government health system is widespread in the state, based on norms of population coverage in setting up health care centres, hospitals and staff. The primary, secondary and tertiary health care facilities form the long chain from health sub-centres (SHC), the Primary Health Centres (PHC), and the Community Health Centres (CHC), as the chain of rural health institutions, and then move onto the civil and district hospitals, to medical colleges and speciality institutions. The hospitals cater to urban health care needs along with tertiary services for rural population.

The government health system has separate norms for rural and urban centres. In rural areas, there is a three tiered system consisting of sub-health centres, primary health centre and the community health centre. The three centres have been assigned particular roles and responsibilities in delivery and planning of health care, and are established based upon population coverage norms, decided nationally (norms are presented in the box). The three rural health delivery institutions mentioned above are referred to as primary health care delivery institutions. In urban areas, government provides for civil hospitals and district hospitals, and they are termed as secondary level health care delivery institutions. They are linked to the primary level institutions through provision of referral and managerial support. At the top of the three-tiered system

	For tribal & Hilly area	For other areas
SHC	3000	5000
PHC	20000	30000
CHC	80000	120000

Norm for health centre on size of population

Table 18: Public Hospitals in (undivided) Madhya Pradesh

Year	Medical College	District Hospital	Civil Hospital*	Population Covered
1982	6	42	78	455996
1986	6	42	78	501484
1990	6	42	78	551510
1994	6	42	78	592278
1998	6	42	74	661952
2000	6	42	74	690031

Source: Different publications of Directorate of Health, Government of Madhya Pradesh (some of the Civil Hospitals were converted into Community Health Centres)

come the medical colleges and other specialised institutions, termed the tertiary health care delivery institutions.

5.1.2 Government Medical Infrastructure

The medical institutions in the undivided state of Madhya Pradesh along with population covered by them are given in the Tables 18.

The latest position of medical centres in the new state of Madhya Pradesh in 2001 is given in the Table 19. Overall there is at least one medical institution for every 5600 persons in the state, and the average coverage is one PHCs for every 37 thousand rural population, one SHC for every 5 thousand and one CHC for every 1.9 lakh rural persons.

Table 19: Health Institutions in New Madhya Pradesh, 2001

Health facility	Units	Population Served
All health institutions in MP	11149	5416
Districts	45	
District Hospitals	36	
Civil Hospitals	57	
Janpad/ Blocks	313	
Rural Health facility	**Units**	**Rural Population Served**
Community Health Centres	229	193373
Primary Health Centres	1192	37150
Sub Health centres	8874	4990
UFWC	97	
UHC	80	
PPC	96	
CD	97	
Other	32	

Source: Directorate of Health Services, Government of Madhya Pradesh, Bhopal

Going by coverage norms there is a considerable gap in the number of Community Health centres, Primary Health centres and Health sub-centres. This gap and the requirement in these centres are given in Table 20. The rural health centres set up is still not as per the specified national norms. The shortfall in the crucial primary health centres and community health centres is 29 and 47 percent respectively. The Government of Madhya Pradesh, took steps to convert many PHCs into CHCs in late 1990's to somewhat solve the problem of lack of CHCs. The shortage figures if looked at district wise show that there are substantial inter-regional disparities in provision of health infrastructure.

For urban areas no clear norms are specified. Apart from the civil and district hospitals, most medical centres are situated in urban locations, especially the primary and community health centres, and the urban resident is serviced by these centres as much as by the hospitals. Further, the main secondary and tertiary health care units in urban areas also provide primary health care to urban residents. In spite of the fact that this put additional pressure on hospitals meant for secondary or tertiary level services, little attention has a yet been paid to evolving a urban primary health care system.

Over the last many years another feature is the spread and reach of the medical institutions has been the lack of growth of secondary and tertiary level institutions. While there has been a large increase in SHC, PHC and CHC, the number of civil, district and speciality hospitals has been stagnant over a long period.

5.1.3 Access to Health Centres

Health centres have come up in rural areas based on population norms (see Box on Page 67) and have mushroomed rapidly in a bid to cover the entire state. However, with a population density lower than national average, health centres on population norms are too widespread geographically. In the

Table 20: Number of Rural Primary Health Care Institutions in New Madhya Pradesh

Institution	Numbers in Existence (as of 2001)	Required for 2002	Gap in Numbers	% Gap
Sub Health Centres	8835	10524	1689	16.0%
Primary Health Centres	1194	1691	497	29.4%
Community Health Centres	229	428	199	46.5%
District Hospitals	36	45	9	20.0%

Source: Unpublished data from the Directorate of Health Services, Government of Madhya Pradesh

new state of Madhya Pradesh, health workers cover on an average six villages and have to cover a radical distance of 3.3 kilometres for delivery of primary health care services. All these figures are well above the national average. Similar distance problems are also associated with primary and community health centres.

What is the distance that people have to travel to access a Primary Health Centre? The data from area coverage indicate something. A close estimate is provided by NSSO round in 1993 for the undivided state of Madhya Pradesh. Only 16 percent rural households had to travel less than half a kilometre to access a primary health centre, whereas 29 percent had to travel between 2-5 kilometres and forty percent had to travel 5-10 kilometres in 1993[20]. The number of SHCs, PHCs and CHCs in Madhya Pradesh in 1993/94 were 11936, 1841 and 191, and this number rose to 12559, 1705 and 343 respectively. Putting PHC and CHC together (since many PHC were converted to CHC in MP in late 1990s), the numbers rose from 2032 to 2048, and this marginal increase would have made little difference to the problem of distance access.

5.1.4 Health Personnel

Personnel working in these medical institutions are the soul of the health care delivery system. Each type of centre has personnel on specified norms, and the norms are specified based on the roles performed by the centre. The staff available and working in government health units is far less than what is needed. The data from the Directorate of Health Services shows that amongst class I doctors there is shortage of 28 percent and the shortage amongst class II doctors is another 19 percent. Anecdotal evidence and evidence from field visits suggest that attendance by staff in rural health centres is poor, which further worsens the situation created by shortage of staff.

There are also district wise variations in personnel. If we just look at data on main doctors and health officers, while Bhopal, Gwalior, Datia, Morena, Damoh, and Tikamgarh have no vacancies, and another nine districts have less than ten percent vacancies, eight districts have over thirty percent vacancies (districts of Katni, Ratlam, Badwani, Jhabua, Shajapur, Shahdol, Dindori, and Sidhi).

Apart from this data, in Table 21b, we present data on required, sanctioned, in-position and vacancies for different categories of health personnel in India and Madhya Pradesh. Of the total specialists required in rural areas, there is a massive shortfall from what is required (over 90 percent), while this shortage is about 62 percent for all India (data pertains to 1998 and refers to the undivided Madhya Pradesh). In terms of doctors at primary health centres, the vacancy status was 17 percent of the sanctioned posts in rural MP.

Table 21a: State of Doctors in Government Medical Centres, 2001

Post	Sanctioned	Filled	Vacant	Vacancy %
Class I (July 2001)				
Specialist	739	530	209	28.2
Class II (June 2001)				
CMO&H	45	20	25	56%
Civil Surgeon	45	Nil	45	100%

Source: Directorate of Health Services, Government of Madhya Pradesh, Bhopal

20. Sarvekshnana, 78th issue, January-March 1999, NSSO (49th survey) Government of India

Table 21b: Health Manpower in Rural Areas

Type of Health Personnel	Required	Sanctioned	In Position	Date	Vacant	Shortfall	% Vacant
Total Specialists (Surgeon, OB&GY, Physicians, Paediatricians							
MP	1368	699	400	31.12.98	299	968	42.8
India	11652	6556	3731	31.12.98	2825	7332	43.1
Doctors at Primary Health Centres							
MP	1760	1690	1469	30.6.98	221	291	13.1
India	23179	29699	25418	31.12.98	4284	2186	14.4
Pharmacists							
MP	2032	2141	1600	30.6.98	541	**	25.3
India	26092	22843	20986	31.12.98	2472	6790	10.8
Laboratory Technicians							
MP	2032	1574	1347	30.6.98	227	685	14.4
India	26092	16022	12998	31.12.98	3045	13133	19
Nurse Midwife							
MP	4084	966	966	30.6.98	0	3118	0
India	43573	22682	17681	31.12.98	5004	20419	22.1

Source: Directorate of Health, Government of Madhya Pradesh, Health Information of India - 1997 and 1998, Directorate General of Health services, Government of India, New Delhi

5.2 Non Government Health Care

5.2.1 Private Health Services

As surveys have shown, private health services dominate the health sector as far as share of patients is concerned. These are characterised by private doctor clinics and nursing home facilities in cities and towns, and small doctor clinics at town and mofussil market centres and roving doctors, registered medical practitioners and *jhola chhaap* (footloose) health service providers. Very little information is currently available about the non-government health care delivery system in the state. There has, however, been a very substantial expansion of the non-government health care delivery system in the state in recent years, especially in large urban areas.

There is no effective mechanism to regulate private health providers by the state or by medical associations as a self regulatory exercise. There are very few norms existing if any, and the question of charges is normally market based, rather than any price regime for a public utility service. The state government has a hospital regulation act that may help in regulating the non-government health sector but this act is still to be enforced because of a stay petition in the court.

Very little is really knows about the private health sector, apart from individual experiences, and sporadic assessments. The rural private sector health providers work on network and word of mouth systems. The private doctor clinics and nursing homes lead the three major health providers. These clinics are usually situated at places where market congregations and visits are normal features. Often doctors also roam around on set routes and on set dates visiting small clinics in the countryside, or patients directly. Small operations, small emergencies, basic health care and medication are given here. In case the patients are serious and centres cannot handle them, they are referred to nearby government hospitals. These private health centres do very little as far as preventive health is concerned and there are growing doubts on the question of quality of care and health practices adopted.

The second category is of the Registered Medical Practitioners (RMP). RMPs are registered with the state government and are trained in basic health care. The RMPs perform two very crucial functions – one is that they are far more easily accessible to people than either the private doctors or the government health centres, and second they are pretty adept and quick in administering basic relief and basic curative drugs and injections. They are also more affordable. Regarding RMPs although they provide health care where qualified doctors have left a void, they can provide only second best treatment when it comes to major diseases and emergencies.

There is a third category of health providers, whom we term as the footloose health service providers or the jhola chhaap health providers. These should not be confused with the government's scheme of the Jan Swasthya Rakshak or the 'barefoot doctor' as they are termed. All over the countryside we find persons who have received some training or work experience in health care, or an employee of some years with a private doctor. Such persons often break out on their own and start providing health care, giving services for they are not trained and in anyway qualified. They provide basic health care, look after symptoms in patients such as fever, cold, aches, injuries etc., at their level. When they come across cases they are unable to handle, they may refer to them to local health care centres, both private and government. There is no data or information available on the scale of such people or their impact on health, but it is certainly a situation that warrants a closer look. In a way it also offers an opportunity to utilise such semi-trained or oriented persons in developing a cadre of well trained and oriented health watchers and basic service providers.

The basic need of the health care seeker and the objective of the health care provider is to administer effective, quick and easily managed health care, especially in rural areas and for slum dwellers. The need for quick cure amongst the poor often leads to use of treatments such as injections, high dosage of drugs for quick relief from symptoms like fever, body ache, weakness etc..

The urban health systems are clinic and nursing home dominated. Little is known about them, except popular perceptions, and that the momentum of collective experience calls for a quality and cost control regime in these health centres. These private health providers in urban areas service not only cater to the city well off, especially in speciality care, they also cater to both the urban poor and the rural poor who come to towns and cities in cases of serious illness and injuries.

Recently there has been some erosion of faith regarding the roles and practices of the private sector. Instances of unethical practice, negligence and corruption are on the rise. There has to be a controlling body of eminent and honest doctors that can act as regulators. The Government also needs to ensure on proper record keeping of cases seen by the doctors that can be monitored, build up crucial data on diseases, and patients, etc. The private sector has to be more actively involved in the health programmes and preventive health activities.

Two acts that directly pertain to quality control of the private health system are the Prenatal Diagnostic Techniques Act, 1994, and the Nursing Home Act. The first Act was enacted by the Government of India, and passed in the Parliament in 1994. The attempt is to put a strict control on prenatal diagnosis of the sex of the foetus, put a stop to female foeticide, and sex selection of the foetus etc. The recent Supreme Court directives following alarming fall of juvenile sex ratio across India in the 2001 census data has put public attention to this problem. Over the last year, the Government of Madhya Pradesh has been rigorously implementing the PNDT Act across the state. To effectively implement the provisions of this act, the Director Public Health and Family welfare has been made the appropriate state level authority, with a direct system right down to the block level. The Act is being strictly implemented. Of the 720 private and government bodies, 571 have already been surveyed, and action has been taken against 15 of them till June 2002.

The Nursing Home Act which lays down guidelines for the nursing homes in Madhya Pradesh was passed by the Vidhan Sabha. However it could not be enforced as one of the district IMA put a stay petition in the High Court and stay was granted. Even after 2 year no final decision has been arrived at. The process of stay, the attitudes of private practitioners towards any form of regulation is a very poor reflection on the seriousness with which the private medical fraternity sees the issue of quality, and patients' rights.

The formal private health delivery system is mostly confined to large towns and the cities of the state. In smaller towns, the private health centres are usually clinics and small nursing homes. Secondly, all their services concentrate on providing curative hospitalisation services rather than health promotion and preventive health care services. There are no staffing and infrastructure norms for the non-governmental sector, resulting in a five star culture in the form of nursing homes in large urban conglomerations and in sub-standard health facilities when catering to the poor. Finally, the system shifts the focus from traditional medicine to that of the western medicine. The prohibitive cost of western medicines and diagnostic tests results in a comprehensive lack of access to these services of people who are not affluent.

A large major part of the informal private health services providers consist of those who are neither properly trained nor formally registered to provide health care services to the community, especially in small towns and rural areas. The space for such health service providers comes from the inability of government or private medical services to currently provide easily accessible and timely medical services to patients residing in remote locations or who are too poor to access such medical services. The unorganised and peripatetic characteristic of these providers makes it very difficult to put in a place any effective mechanism to regulate them. Although they do provide available and quick health service, these health services providers do more harm than good to people's health in the longer run.

5.2.2 Non Government Organisations and Health

There is very little organised knowledge of voluntary effort in health in the state. The state does have a history of hospitals, dispensaries and community health care projects in the

voluntary sector, which is growing over the years. These institutions and projects have been networking into associations that provide continuing education for its members and support them in other ways to carry out their activities. The networks include the Madhya Pradesh Voluntary Health Association (MPVHA); the Catholic Health Association of Madhya Pradesh (CHAMP) and others. In 1999-2000, these came together with other networks to participate in the mobilisation for the people's health assembly at Kolkata and Dhaka in December 2000, bringing to these assemblies the wealth of experience evolving at the grass-root level.

The state of Madhya Pradesh has been rich in social and peoples movements, which have created their own people's organisations, and some very good non-government organisations across the state. There is also wide experience in the state of collaborating with NGOs in core work in different social sectors. The most well know role of NGOs in health has been in the case of the Bhopal Gas tragedy.

The presence of such peoples organisations and NGO's calls for a need for the state to dialogue with the NGO sector and the social movements to harness their resources, commitment and capacities for the health of the people. This is a large potential still that should be explored and could become a major partner in the people oriented health policies of the state which seeks to empower the local elected bodies in health work.

5.2.3 Community Participation

Community participation has not been exploited in the health system. Technology dominated, technology solution dominated and technicians dominated, this system has actively sought to remain outside any interaction with the patients or any other groups in health delivery. It has been a domain issues, and since the health system has become almost totally technology intensive, it has made non-technical interventions even more difficult.

The role that communities have been able to seek has been with the coming of the new Panchayati Raj set up. The main role of community participation in Madhya Pradesh has been through the medium of the Panchayati Raj institutions. The district Zila panchayats were entrusted with some responsibility of managing local health set up. However in practise till now there has been very little interface between the health structure and people's representatives.

The latest amendments to the Panchayati Raj Act, popularly referred to as the Gram Swarajya amendments, have created substantial space for community participation and local control over health. The Act is perceived by many as an instrument that will go a long way in decentralisation and devolution of statutory powers to the Gram Sabhas[21]. Under these amendments, a Gram Swasthya Samiti (Village Health Committee) has been set up. The Gram Swasthya Samiti has a multi sector mandate combining health, safe dinking water, sanitation and nutrition.

Another move towards involving the community has been the village health register. Every village now has a village health register, in which community is involved in registering information on JSR, Dai, immunisation, ANC, Family Welfare, Malnutrition, Availability of Safe Drinking Water, Service Providers, VHC, Depot Holder, 4 Vital Registrations, etc. The Gram Swasthya Samitis will be trained on the health registers. The current registers are based on information collected in 2002, and these shall be up dated annually.

6. Narrowing the Gaps — The MP Health Response

6.1 Evaluation of the health system

In spite of the network of medical institutions, large army of medical personnel and many efforts in the health arena, the health status of Madhya Pradesh has been deplorable at best. The Rajiv Gandhi Missions system undertook a critical evaluation of the health system of the state, which is presented in the box[22]. This evaluation of the health system has been the background for the planning that went into the new Swasth Jeevan Sewa Guarantee Yojana of the state. The points of assessment show the current government thinking on health. The scheme is planning for a major shift in the management of a people health initiative, a like the Education Guarantee Scheme[23]. In fact this critique of the health system has helped design elements of the new health scheme.

6.2 Initiatives in Health

In the arena of health, as all indicators and data show, Madhya Pradesh has a very long way to go. There are constraints of a difficult terrain, poor availability of funds in a backward and poor region, lack of medical personnel to adequately service the population, coupled with an under nourished and weak population. With no options to enhance funding in health in the near future, it calls for changes in the delivery strategies and delivery systems in the state. On the other hand, health is an area where quality of care and therefore quality of person delivering the service is utterly crucial.

To overcome some of these constraints, the State Government has undertaken some initiatives in health in the last eight years. These have been crucial both in what they have achieved and in what they have shows in way of institutional

21. There shall be a Gram sabha in every village. The Gram sabha will be a body corporate by the name specified thereof.

22. "Swasth Jeevan Sewa Guarantee Yojana" Moving Towards Decentralised Management of Health care in Madhya Pradesh, Rajiv Gandhi Missions : Occasional Papers No 8, R Gopalakrishnan and Manohar Agnani, March 2001

23. The designers of this mission state that they have been inspired by the Education Guarantee Scheme in the design of this initiative.

Evaluation of the Health System

Abandoning Comprehensive Health care for Selective Health Care

Vertical Management that bypasses Horizontal Structures.

Declining share of Non-salary component and non optimal mix.

Ineffectual Delivery of Services: Data on Benefit Incidence.

Uneven Benefits: The Social and Gender Divide

Inadequate Focus on the Private Sector and Indian Systems of medicine

Citizen and Community as Patients not agents of change

No Framework to Capture Determinants

Limitations of Current Sector Reform Proposals

Extracted from "Swasth Jeevan Sewa Guarantee Yojana" Moving Towards Decentralised Management of Health care in Madhya Pradesh, Rajiv Gandhi Missions: Occasional Papers No 8, R Gopalakrishnan and Manohar Agnani, March 2001

arrangements and designing of new ways. We will undertake a brief tour of these initiatives. In Madhya Pradesh we are also seized with two other problems – qualified doctors do not work in rural health centres, and either get themselves posted to urban centres or do not attend their duties, and second declining funds have turned many of these health centres inactive. Drawing on the experience of these initiatives and the two problems listed, Government of Madhya Pradesh has recently come up with a state wide initiative to tackle this. We will also then take a look at this initiative and what went into making it.

6.2.1 Selected Initiatives

It is important to list down some specific initiatives under taken by the state government focussing on critical issues in health. In its effort at reducing infant related mortality and illness, the great success story has been the pulse polio campaign, undertaken nation wide. The success of the programme can be gauged from the fact that the state remained polio free in 2001 and throughout 2002. In fact in 2000, the State has achieved the international standards with regard to the technical aspects of this campaign. Based on community management, and participation, pulse polio campaign has shown an excellent manner of putting together the community and technology in achieving great success.

The recent efforts at ensuring full immunisation in the state has also achieved results. As mentioned earlier, the current rate of fully immunised children has touched nearly fifty percent, up from the 25 percent that the State would achieve till a couple of years back.

The State of Madhya Pradesh has initiated a State Illness Assistance Fund for providing grants to below poverty line cases. Those identified as poor in the below poverty line surveys can now get benefit for 13 major diseases requiring surgery and treatment. A fund of Rs 10 crores has been kept in a nationalised bank for this purpose. The grants are sanctioned by a committee or by the Minister of Health in cases of emergency, and assistance ranges between rs 25000 to a maximum of Rs 1.5 lakhs.

6.2.2 RKS - The Rogi Kalyan Samiti

The State has initiated a scheme for citizen involvement in the management of State hospitals and health centres, following the successful experiment with a Rogi Kalyan Samiti in cleaning and refurbishing the Maharaja Yashwant Rao hospital at Indore. This scheme brings in citizens participation in health centre management, introduces levying user charges, citizen bodies controlling user charge funds, and maintaining the health centres.

Today, there are 750 hospitals and health centres across Madhya Pradesh that have a Rogi Kalyan Samiti out of a total of 1527 total centres. More than 7000 people are involved in the running and management of their health centres and hospitals as participants in RKS, and over the last five years, 53.2 crore rupees has been collected as user charges or raised by citizens as donations for their hospitals and health centres, and 40.2 crores out of this has been spent on improving hospitals, buying equipment, and medicines etc..

Many problems have also been identified with the RKS, but what has happened is that it has opened up the health system to participation of people in their management, brought a sense of ownership amongst citizens, with user charges it has broken the bogey that people will not pay for good services, and has provided a system with potential to be used to improve services of health units. It clearly shows that people's participation can definitely improve the status of public health delivery system.

6.2.3 Swasth Jeevan Sewa Guarantee Yojana (SJSGY)

The Swasth Jeevan Sewa Guarantee Yojana aims at establishing a system through which the participation of the community increases in the management of health services and effective utilisation of resources and facilities. The implementation of the Swasth Jeevan Sewa Guarantee Yojana will ensure the provision of a core set of services by the state government within a specified time frame. These services will include:

- One trained Jan Swasthya Rakshak in every village by December 2002.
- One trained birth attendant in every village by December 2002.
- Universal Immunisation.
- Three Ante-natal checks for pregnant women.
- Safe drinking water supply.
- Nutrition cover – Infants, children aged less than 3, pregnant and lactating women.

Jan Swasthya Rakshak Scheme - An Evaluation

The State Government started the Jan Swasthya Rakshak Yojana on 19th November, 1995, aiming to provide basic health care in every village of the state. The idea was highly relevant, aiming at creating a functionary capable of providing accessible, affordable and appropriate care right at the village level. As per the goals of the SJSGY, the presence of a trained Jan Swasthya Rakshak in every Village is to be ensured by Dec. 2002.

Presented below are salient findings of a review of the JSR scheme -

The common opinion about this scheme encountered is that it is conceptually sound and designed to meet a much-felt need.

There is an attrition rate in JSRs. Going by interviews and investigation in various blocks, it appears that quite a few of the JSRs are not fully active today.

Regarding process of selection, the JSRs are to be selected by the Gram sabha. As far as the selection of JSRs earlier on was concerned, there were many cases when Gram Sabhas did not actually select the JSR. However, based on feedback, this selection procedure today has been ensured, and Gram sabha now play an active role.

Gender wise, men heavily predominate. Educational status among most of trainees and trained JSRs was class 12th or above, while the lower ceiling for educational qualification to become a JSR was Class 12th pass. A few Private medical practitioners (2% of JSR trainees studied) have entered the JSR training process and pose the risk of providing an unhealthy role model for other JSRs. The education criterion for JSRs has now been relaxed to 8th pass, and preference is being given to candidates from SC and ST communities.

Methods of training include observation of clinical work in OPD, wards, lab or injection room. In classrooms the main method is reading of the manual. In the earlier experience of JSR training, training aids were lacking, including the manuals. The trainers in most instances were the medical officer of the PHC/ CHC and may be the sole trainer; generally trainers had little time and mental space to devote for training and venue for training was also often inadequate. The feedback on improving training management, training curriculum and its design have been incorporated into the training now being given to JSRs.

JSR links with public health system was tenuous. Personal contact with ANM/MPW seems to be the unstructured link, with involvement in occasional assignments like Pulse Polio being the only content. There was no formal monitoring of JSRs either in form of regular feedback from them or communication to them from the PHC. This has changed now, and in the tenth plan, the government plans to network with JSRs under different programmes, especially those related with primary and community health.

It may be said that the scheme has major potential because of the vast need for available and affordable care in a backward state with far-flung villages. The evaluation report stated that the scheme lacked a 'system framework' and the report as well as most stakeholders were of the opinion that improvements were necessary. The evaluation report mentions "Redesign of the scheme with educated involvement of users, analysis of processes, better support systems, slower pace could provide a viable option for village level primary care. Also there is a need to institute controls including control by users, better training, continuing education and concerted effort on National/ State Health Programmes." Most of these recommendations have been put into effect under the overall umbrella of the SJSGY (some of these elements have already been mentioned above).

Source: Draft Report of Evaluation of JSR scheme, CHC Bangalore, and Reports and Information from Directorate of Health, Government of Madhya Pradesh

- Proper sanitation facility – solid waste management and waste water disposal.

Training of Village Health Committee

The Gram Sabha members of every village will be given the responsibility to constitute a health committee of stakeholders, called the Gram Swasthya Samiti to carry out this plan at the village level. This committee should have at least 12 members out of which fifty percent should belong to Scheduled Castes, Scheduled Tribes and Other Backward Classes (2/3 SC/ST and 1/3 OBCs) and thirty three percent women members.

With the support of the Rajiv Gandhi Community Health Mission, number of Master Trainers and Block level trainers have been trained and now they are training VHC members across the state.

Community Health Activists is SJSGY – Jan Swasthya Rakshak (JSR) and Trained Birth Attendant (TBA)

The State Government started the Jan Swasthya Rakshak Yojana on 19th November, 1995 to provide basic health services in the rural areas through trained personnel who can treat minor ailments, and to develop a cadre of people who can also assist in the implementation of national health programmes. This scheme ran in the state for nearly five to six years. There is not very much known regarding the actual effectiveness or impact of the JSR scheme, but the general impression from the field has been that they can be fairly effective and posses immense potential as an army of para-professionals. To fill in the information gap on JSRs, and to strengthen this programme the state government got an evaluation conducted of JSRs, which has thrown light on the JSR scheme and what potential lies in this scheme for the state (see box).

Building on the JSR scheme and drawing action points and guidelines from evaluations of the JSR scheme and feedback from the field, the state government has brought them under the Swasth Jeevan Sewa Guarantee Yojana, the comprehensive community health scheme. As per the directions of the state government in response to the new initiatives planned in the states health delivery set up, the presence of at

least one trained Jan Swasthya Rakshak in every Village has to be ensured by December 2002. Under this initiative, out of the total 52352 villages, JSRs are to be made available for 42816 villages. Till date 29371 JSRs have been trained, and another 10069 are undergoing training. This just leaves 3376 more JSRs to be trained to achieve the target of one JSR for every village.

Along with JSRs, the state government has also decided to ensure at least one trained Dai for each village by the end of the year 2002, again a part of the Swastha Jeevan Sewa Guarantee Yojana. Till date 41928 Dais have been trained and another 1466 are under going training. Another 9027 Dais are still left to be trained. The main objectives of the Dai programme is to provide ANC checkups, identify high risk pregnancies and counselling on nutrition and safe delivery; to conduct safe deliveries; to identify danger signs during delivery and appropriate timely referral.

7. In Conclusion

The effort through the Swastha Jeevan Sewa Gurantee Yojana is to move towards a rights-based framework for delivery of basic health care. It is expected that the Swasthya Jeevan Sewa Gurantee Yojana will leverage the management of health sector towards district and below district level management. The State Government has also set up a State Health Society chaired by the Chief Minister as a multi sectoral forum with experts and sectoral heads represented on it so that issues of health can be addressed in an integrated framework. This has been extended to the Districts as District-level Health Societies.

The Village Health Society at the Village-level, the District Health Society at the District-level and the State Health Society at the State level are key multisectoral management units to address health issues. It is proposed to build health action from below to address the major challenges that Madhya Pradesh faces in public health.

Livelihood: Crisis and Growth

Livelihood is the most defining and determining need for a human being. A livelihood in many ways is almost the entire gamut of issues covering life. For a decent level of human development, a person and her household requires a source of sustainable livelihood that ensures access to basic resources and access to basic amenities to survive well. Employment, sustainable, gainful and one that ensures a basic level of remuneration is essential for all human beings. Employment by itself is not a complete condition for a sustainable livelihood – it is the character of employment – its regularity and periodicity, level of income or benefits from it, and security of employment, and ensured basic rights of employment.

In this chapter we will take a look at the question of employment and un-employment in Madhya Pradesh, and a brief look at the conditions affecting livelihoods apart from employment.

Introduction

People need sustainable livelihoods to ensure that they and their dependants are able to have access to basic resources and basic needs to ensure a life of dignity, decent living, save from disease, hunger, squalor, poverty, deprivation and denial of basic rights. This means that livelihoods ensure nutrition, lack of hunger, ability to access basic health, give children basic education, ability to afford a decent shelter, clothes and resources for necessary daily and social expenditures.

Livelihoods, in many ways would then be a sum total of both the employment portfolio of a household and what it earns in monetary terms, or as services and goods, and what a household receives as entitlements being a citizen of the state, or gram panchayat. Dealing with both these aspects, we will concentrate more on the status, trends, issues and action on livelihoods of people and lesser on the livelihoods provisioning by state, or other agencies.

The most crucial need for a sustainable livelihoods for an individual or household is employment, or being gainfully employed over a period of time, that ensures a level of remuneration satisfying basic needs and a quality of life. What is this level of earning/ income/ inflow of money goods or services to a household that ensures such a standard is difficult to estimate, but there are a few ways of assessing these. The most widely used measure is one of income poverty. Households subsisting below this level of income (calculated using expenditure estimates), would be the most vulnerable and deprived households. The other measures would be employment figures, employment in different categories.

Households involved in labour, without possession of land, households with very little land (marginal farmers, or even small farmers owning poor quality or un-irrigated lands), households with just one member employed (especially in rural areas, and employed as labour, or very small trading or wage employment), persons employed in activities facing crisis/ shrinking/ decline and so on. On the other hand, evidence of persons gainfully employed, and being able to sustain their households would be available from figures of employment from census and other surveys, and their sustainability can be ascertained from ownership/ operational rights over land, factors of production, employment in salaried positions, self-employed in units of some size, employed in growing/ emergent clusters, and so on.

Other measures or indications on the state of livelihoods are the issue of ownership/ access to productive capital/ assets. Ownership or access to land, access to forest and forest produce, including usufruct, access of natural resources for livelihoods dependent on them (pond and lakes for fish folk, access to clay for the potters, access to dead carcass for leather flayers, etc.), access to water.

The chapter on livelihoods would attempt to understand the nature and sources of employment in Madhya Pradesh, and the quantum or numbers of persons belonging to various categories of employed, asset holdings and so on. This would give a precise idea of the quality and quantity of the livelihood issue in the state. The first section would therefore deal with the magnitude of employment, problem of un-employment and under employment. The next section will deals with aspects affecting livelihoods, where we deal briefly with the economy of the state and some of the crucial issues of ownership, growth areas, the institutional framework for livelihoods and last the action in livelihoods promotion in Madhya Pradesh.

The Census of 2001 has put the population of Madhya Pradesh at just over six crores, showing a growth rate of over 24 percent over the decade. This puts the annual increase in population at 2.2 percent or 13.3 lakh persons per annum. Let us assume that the annual growth rate would remain the same for the first few years of this decade, and persons added in the last two decades now need jobs or employment. The Worker Participation ratio of MP in the productive ages (15 years to 59 years) is presented in the Table 1(a) below.

With the same level of main and marginal workers assumed in the work force as estimated by Census for Madhya Pradesh in 1991 for the different age groups, we see that on an average at least nearly ten lakh jobs will be required every year for the workforce. This is many sense would be the employment challenge for Madhya Pradesh – to ensure gainful and sustainable employment to ten lakh people every year. Expanding and providing opportunities for productive employment is central to sustained poverty reduction, as labour is the main asset for majority of the poor.

Madhya Pradesh has a very large population dependant on agriculture, there is a gradual casualness of labour, and a large number of persons are employed in sectors which are not high growth. The challenge of employment is then not just new jobs, but to make existing livelihoods stronger, and sustainable. In the following section we will attempt to look at the employment scenario and trends for Madhya Pradesh in the light of where is this employment coming from, what could be the characteristics of this employment in terms of security and sustainability of livelihoods and what would be the future scenario.

The last decade has seen many changes in Madhya Pradesh, including a high rate of growth of the economy. How much of this has translated into an impact on peoples livelihoods is what we need to see. Evidence, both from peoples field experience, and from studies and data shows that employment opportunities created is inadequate inspite of rapid growth. The general perception in the country is that although GDP growth has accelerated, it has not been accompanied by a commensurate increase in employment leading to a worsening in the employment situation in the post-reform period. These considerations have led to a demand for greater attention to the employment objective[1]. There is also a concern on youth and educated unemployment as increase in it will lead to waste of human resources and social tensions.

EMPLOYMENT SITUTATION AND TRENDS

Information on the level of employment in the state is derived from both census records and data based on National Sample Survey (NSS) data.

As shown below, employment in Madhya Pradesh is largely unorganised, rural and non-industrial nature. Casual

Table 1(a): Worker Participation Ratio by Ages in MP, 1991

Age group	Population			Rural			Urban		
	All	Male	Female	All	Male	Female	All	Male	Female
TOTAL	42.8%	52.3%	32.7%	46.8%	54.0%	39.3%	29.6%	46.8%	10.2%
5-14	8.1%	7.6%	8.6%	9.9%	9.2%	10.7%	1.8%	2.3%	1.3%
15-19	44.9%	47.4%	42.0%	55.0%	55.6%	54.2%	16.7%	24.5%	7.2%
20-24	64.8%	78.8%	51.0%	74.4%	85.9%	63.6%	37.6%	60.3%	12.6%
25-29	74.4%	94.0%	54.4%	81.7%	96.2%	66.9%	52.6%	87.4%	16.6%
30-34	78.4%	97.5%	57.9%	84.3%	98.2%	69.7%	60.2%	95.3%	20.2%
35-39	80.1%	98.5%	59.0%	86.1%	99.0%	71.4%	62.5%	97.2%	21.8%
40-49	79.8%	97.7%	60.3%	84.8%	98.1%	70.8%	63.7%	96.3%	23.1%
50-59	75.0%	94.3%	53.6%	79.3%	95.8%	61.6%	58.8%	89.2%	20.8%
60-69	55.6%	76.4%	33.9%	60.5%	81.3%	38.7%	34.4%	55.1%	12.6%
70-79	33.9%	52.4%	15.7%	36.7%	56.0%	17.9%	21.1%	36.5%	5.7%
80+	24.7%	38.1%	10.1%	26.3%	39.8%	11.6%	18.1%	31.2%	4.2%
15-59	70.0%	85.1%	53.7%	77.2%	88.5%	65.3%	48.1%	75.2%	16.7%

Source : Derived from Table B1 (S) for Madhya Pradesh, Economic Tables, Census of India, available of CD-ROM, Registrar General of India, New Delhi

1. For details see GOI (2001)

labour forms a substantial part of the total labour force and has been growing in the last couple of decades.

Work participation rates

Worker-population ratios provide an idea about the participation of population in economic activity[2]. Table 1(b) provides the worker population ratios for the period 1983 to 1999-2000. The participation rates in rural Madhya Pradesh increased in 1993-94 before declining significantly in 1999-2000. The decline occurred for both rural and urban areas. The worker-population rates for rural and urban Madhya Pradesh are much higher than for rural or urban India, and this trend has been maintained over the last many years. The over ten percent difference between the WPRs of India and Madhya Pradesh shows the need for large number of people to be involved in the workforce in Madhya Pradesh. This quite clearly shows that the remuneration received from most livelihoods in Madhya Pradesh are low, and many more people in households are required to be working to maintain themselves.

Table 1(b): Work Participation Rates: Madhya Pradesh and All India

Year	Madhya Pradesh		All India	
	Rural	Urban	Rural	Urban
1983	49.8	32.3	44.5	34
1987-88	47.9	32.3	43.4	33.7
1993-94	49.4	31.7	44.4	34.7
1999-2000	46.2	31.9	41.7	33.7

Source: NSS Rounds on Employment and Unemployment (38th, 43rd, 50th and 55th Rounds)

Table 2: Work Participation Rates for Males and Females: Madhya Pradesh and All India

Year	Madhya Pradesh		All India	
	Rural	Urban	Rural	Urban
Male				
1993-94	57.2	47.1	55.3	52.1
1999-2000	53.6	48.8	53.1	51.8
Female				
1993-94	41.0	14.2	32.8	15.5
1999-2000	38.2	13.4	29.8	13.9

Source: NSS Rounds on Employment and Unemployment (50th and 55th Rounds)

Table 3: Percentages of Workers among Children across States

	Rural		Urban	
	5-9	10-14	5-9	10.14
Andhra Pradesh	3.6	34.4	1.3	12.9
Assam	0.3	4.9	0.2	6.5
Bihar	0.5	7.5	0.2	2.5
Gujarat	0.2	8.4	0.5	3.3
Haryana	0.2	5.1	0.6	4.1
Karnataka	3.6	25.1	0.8	8.0
Kerala	0.1	1.3	0.0	1.1
Madhya Pradesh	**1.1**	**17.3**	**0.6**	**2.3**
Maharashtra	0.9	12.6	0.1	4.0
Orissa	1.2	14.4	0.3	5.1
Punjab	--	5.3	--	3.4
Rajasthan	5.0	25.4	0.6	6.1
Tamil Nadu	2.1	18.3	0.5	8.8
Uttar Pradesh	0.4	10.4	0.4	6.2
West Bengal	0.7	10.4	0.6	6.7
All India	**1.3**	**14.0**	**0.5**	**5.6**

Source: NSS 50th Round

In the trend of a decline in WPR over the years, the survey results for 1993/94 do show a somewhat different picture, where rural WPR went up from 1987/88, and then reduces again in 1999-2000 in Madhya Pradesh and India.

We see the participation rates for males and females for the 1990s in Table 2. It shows a decline of rates for both males and females in 1999-00 as compared to 1993-94, except in the case of urban males.

Age specific worker participation rates apart from Census are also available from NSS. From these estimates let us first take a look at children working. Looking at the incidence of childern working captured by NSS estimates presented in Table 3, in Madhya Pradesh an approximate 17 percent of rural children in the age group ten to fourteen years were working. The

2. In order to capture the complexities of the employment situation in a predominantly agrarian and unorganised economy like India, the estimates of employment and unemployment by NSSO are derived on three concepts, Usual Status (US); Current Weekly Status (CWS) and Current Daily Status (CDS). The three concepts are based on three different reference periods for ascertaining the activity status of a person. Under the Usual Status concept the reference period is one year and the activity status of a person as employed, unemployed or out of labour force is determined on the basis of activity pursued by him for the major part of the year. On the CWS criterion, a person is considered as employed or unemployed if he has worked or has not worked though was available for work, respectively, even for one hour during the week. Under the CDS approach, the unit of classification is half day. Under this approach the person days are distributed by activity category during an average week. A deficiency of the present time criterion based estimates of employment is that one gets to know little about how well employed (income etc.) are the persons who are seen as employed. They also do not provide the multiple activities by persons/households.

rate of rural child workers is the fifth highest amongst the major states of India. In urban areas on the other hand, the rate of children working is relatively much lower at 2.3 percent.

Employment growth

The number of employed and worker participation rates show the current status. Trends in employment growth and the diversity and distribution of work force are a far more crucial and relevant indicator of the state of livelihood. What is happening in employment or livelihoods in the state in the last decade or so? Table 4 shows that employment growth declined drastically in the 1990s as compared to the period 1983 to 1993-94. In rural Madhya Pradesh, rate of growth in employment declined from 2.49 percent per annum to 0.69 percent per annum.

What are the reasons for the decline in employment growth in the 1990s? One of the reasons could be decline in participation rates of younger age groups. A decline in the participation rates of younger age groups is expected as younger people try to gain access to education and stay in school for a longer period. Rising income levels also reduce the pressure to enter the labour market. However, it may be noted that participation rates declined for all age groups although the decline was shaper for younger age groups. Another explanation given is that labour force growth itself has declined. In other words, many are joining the category of 'not in the labour force'. It is not, however, clear why labour force participation has declined. It is possible that economic opportunities have not increased in the post-reform period inspite of higher growth.

Table 4: Employment Growth (per cent per annum): Madhya Pradesh and All India

Period	Rural		Urban	
	M. P.	All India	M. P.	All India
1983 to 93-94	1.82	1.73	2.98	3.34
1993-94 to 1999-2000	0.69	0.67	2.94	1.34

Table 5: Distribution of Operational Holdings and Area by Size Classes: 1970-71 and 1995-96

Year	Marginal	Small	Semi-medium	Medium	Large
No. of holdings (in lakhs)					
1970-71	16.8	8.9	10.7	11.7	4.9
1995-96	22.8	16.5	13.8	9.5	2.0
No. of Holdings (%)					
1970-71	31.8	16.8	20.1	22.0	9.3
1995-96	35.2	25.5	21.4	14.7	3.1
Area (in lakh hectares)					
1970-71	7.2	13.2	30.9	73.5	87.2
1995-96	11.4	24.4	39.3	57.9	32.9
Area (%)					
1970-71	3.4	6.2	14.6	34.7	41.2
1995-96	6.8	14.7	23.7	34.9	19.8

Note: Marginal (below 1 hect.); Small (1.0 to 2.0 hect.); Semi-medium (20. to 4.0 hect.); Medium (4.0 to 10.0 hect.); Large (above 10.0 hect.)
Source: Commissioner of Land Records and Settlement, Gwalior, M. P.

PROLIFERATION OF MARGINAL AND SMALL FARMERS

The number of smaller holdings and area under them has

Table 4 (contd.): Employment Growth (per cent per annum): Madhya Pradesh

Period	Rural Workers (in '000s)			Urban Workers (in '000s)			All Workers
	Male	Female	Total	Male	Female	Total	(In '000s)
Workers in 1983	11897	8803	20700	3108	825	3933	24633
Workers in 1987/88	12900	9200	22100	3600	1000	4600	26700
Workers in 1994	15788	10689	26514	4142	1120	5287	31801
Workers in 1999-2000	16463	11116	27634	5054	1100	6291	33924
Rate of Change in Workers per Annum							
Between 1983 to 1987/88	1.63%	0.89%	1.32%	2.98%	3.93%	3.18%	1.62%
1987/88 to 94	4.12%	3.05%	3.71%	2.84%	2.29%	2.82%	3.56%
1993-1994	2.87%	1.96%	2.51%	2.91%	3.11%	3.00%	2.59%
1994 – 2000	0.70%	0.65%	0.69%	3.37%	-0.30%	2.94%	1.08%

Source : Computed by the author based on NSS and Census data. For absolute numbers, Census figures are used.

been increasing, a pointer to fragmentation of the already meagre land holdings of small and marginal farmers upon division, and many semi-medium and medium level land holdings slipping into marginal or small land holdings with fragmentation due to multiple divisions. The data presented in Table 5 show that the share of marginal and small farmers in area and number of holdings increased over time from 9.6 percent in 1970-71 to 21.5 percent in 1995/96, an increase of seventy five percent in terms of land under small and marginal farmers. The data for 1995-96 show that around 61 per cent of the land holdings belong to marginal and small farmers.

There are 39.3 lakh small and marginal farmers in the state and they are mostly underemployed. The size of land holding of these farmers (average land holdings of small and marginal farmers was 0.91 hectares in 1995/96) is uneconomical and majority would also be working as agricultural or casual labourers to supplements their incomes from farming to sustain their livelihood. In between 1981 and 1991 there was no significant shift of workers to agriculture labourers. However, data from NSS rounds report that there is a gradual casualisation of the workforce, and the number of casual labourers in MP went up from 32 percent male and 38 percent female casual labourers in 1993/94 to 37 percent male and 44 percent female casual labourers in 1999/2000.

PRODUCTIVITY OF LAND

On livelihoods dependent on agriculture, the quality and productivity of land has a significant effect. The productivity of agricultural land is at the heart of income earning opportunities, and the well being of the people is dependent on the yield from agriculture.

If we look at the Table on agriculture productivity it gives a fairly good idea of the regional dimensions of the strengths of agriculture, a surrogate measure for basic well being of those working in farm activities. There are identifiable regions

Subsistence (Marginal and Small) Farmers (landholding between one acre to five acres of land) – A study of households in Narsinghpur, Hoshangabad, Ujjain and Neemuch

Marginal and small farmers normally till their own till land, their own khud kasht holdings and many amongst them also take land on lease, owning two to four acres of land, and on average lease two to three acres of land on batai. Every subsistence farmer wants to grow food for tiding over at-least six months' worth of consumption needs for his/her family, and it was found that they were able to grow 12-15 quintals of food grains per annum. Produce grown by them includes edible oils, like linseeds, sesame, rape seeds, *taramira*, and also some coarse millets like tapioca (kodo), sama and pulses like *arhar, mung* and *urad*, and some vegetables in the kitchen garden. Most subsistence level farmers (about 90%), reared one or two bullocks for tilling, renting them out and for dung, for manuring the fields. The requirement of dung for one acre of land is about ten cart-loads and one buffalo/cow produces about ten cart-loads of dung per annum. A subsistence farming family (of seven members) needs about four acre worth of agricultural produce for meeting six months of domestic needs. This requires four heads of cattle, which generally consists of a cow, one or two calves and a pair of bullocks. However, the study team found that in most cases, the subsistence farmers had access to only two to three acres of land (either their own land or sharecropped land). They also do not own any other assets of significant monetary value like bullock carts, mechanical devices etc. though they do have implements like ploughs, levelling planks etc.

The subsistence farmers have to complement the agricultural yield with wage labour (local as well as migration), gathered residuals (from harvested fields) and other subsidiary non-farm occupations (e.g., service, pottery, hair-cutting, carpentry, fishing etc. depending on castes and available choices). Fishing is an important livelihood source for communities (especially *kevats or dhimars*) living near water reservoirs. Another activity undertaken by such farmers is collection and sale of non-timber forest produce and sale of head loads of fuel wood in the nearby markets.

Households belonging to this category (especially the SC/ST ones) are often bound in exploitative relationships (as reflected in low wage payments, harassment of women and harassment of school-going children) with the dominant segments i.e., the larger farmers.

In Bundelkhand and Chambal regions livelihoods of this category are subsistence livelihoods. In districts like Narsinghpur, Hoshangabad, Ujjain and Neemuch – some of the farmers with 4-5 acres of land might even belong to marginally surplus livelihoods, helped mainly by the black cotton soils of Malwa region and ample water for irrigation.

One of the chief features of this group is its perpetual state of indebtedness to the local moneylenders. The debt burden on the small and marginal farmers is lesser than on the landless labourers provided (i) the former have not faced any major health problems in which case they are compelled to avail loans from the local moneylenders, (ii) The family does not have more than one daughter to be married and (iii) The family has at least four bighas of irrigated land which are dual cropped and the family grows vegetables and other cash crops on that irrigated land.

The small and marginal farmers stand a much better chance of getting some land to cultivate on share cropping basis than the landless because they have wherewithal to undertake farming, whereas the landless would neither have bullocks and agricultural inputs nor much of prior experience in farming. The details of the agriculture labour and non agriculture labour are more or less the same but for the fact that the small and marginal farmers remain fairly busy in their own fields and therefore are unable to work as much in the field of others as agriculture labour as the landless in the village. This group is more likely to have cattle but the milk produced is invariably used more for self-consumption than for sale.

Source: Fieldwork by Project Team

of low agricultural productivity in the state. In the case of major Kharif crops, the low productivity belt is largely concentrated in the Rewa and Sagar Divisions, as well as three Nimar districts. In the case of major Rabi crops too, there is a well-defined low productivity belt, which is, however, slightly different from the low productivity belt defined for Kharif crops. In Rabi, the districts at the bottom in terms of yield per hectare fall entirely in the Rewa division and the southern tribal districts of Jabalpur division. The three districts of Nimar record comparatively high levels of productivity in Rabi, ranking at No. 5,6 and 14 in the state out of 45 districts.

Some of the differences may be explained by Irrigation Intensity. If we consider the districts with irrigation intensity of less than 20 per cent, we find, in addition to the district of Jhabua in Western MP, a clear contiguous geographical belt in Eastern MP encompassing the districts of Panna, Rewa, Shahdol, Sidhi, Umaria, Dindori, Mandla and Seoni. These also happen to be districts in which the productivity of Rabi crops is relatively low. The Nimar districts are comparatively

Non Timber Forest Product in Madhya Pradesh

Name of NTFP	Botanical Name	Uses	Month of Collection
Mahua	Madhuca indica	Commercial, Medicine, oil	June– July
Kanji	Pongamia pinnata	Non edible oil	Jan – Mar
Mahua Phool	Madhuca latifolia	Beverage	March – April
Areetha	Sapindus emarginatus	Soap	Feb – April
Aonla	Embelica officinalis	Medicine/ Trifala component, fruits very rich in Vitamin C.	Nov – Jan
Baheda	Terminalia bellerica	Medicine	Mar – May
Gond Dhawra	Anogeissus latifolia	Gum	Feb – June
Gond Salar	Boswellia serrata	Gum	Mar – June
Gond Karaya	Sterculia urens	Gum	Mar – June
Gond Babul	Acacia nilotica	Gum, medicine	Mar – June
Gond Khakra	Butea monosperma	Gum, dye	Mar – June
Kali Musli	Curculigo orchiodes	Medicine	Sep – Oct
Safed Musli	Cholrophytum tuberosum	Medicine	Sep – Oct
Satavari	Asparagus racemosus	Medicine	Sep – Oct
Kemach Beej	Mucuna purita		Oct –Dec
Ghat Bor	Zizyphus xylopara	Fruits edible	Mar - Apr
Bel Guda	Aegle marmelos	Diarrhoea, heat –stroke	Apr – Jun
Gond Godal	Lannea cormondolica	Gum	Mar – Jun
Shahad	Apis dorsota	Medicine/ Food	All year
Mom	Apis dorsota	Commercial	All year
Gond Khair	Acacia catechu	Gum	Mar – Jun
Lac	Tachardia lacca	Jewellery, sealing	Mar – Jun
Baheda chhal	Teminalia bellerica	Medicine	Mar – May
Adusa	Adhatoda vasica	Medicine	Jan – Jun
Gokharu	Tribulus terrestrius	Medicine	Sep – Oct
Ratanjot	Jatropha carcus	Medicine, Oil	Sep – Nov
Aswagandha	Withania somnifera	Medicine	All year
Marorphali	Helecteres isora	Medicine	Oct – Dec
Sankh Pushpi	Evolvlus aisiniodes	Medicine	Sep – Nov
Tendu Patta	Diospyros melanoxylon	Bidi making	Apr – May
Chironji	Buchanania lanjan	Food/ Dry Fruit Nuts	May – June
Bark of Khakra	Butea monosperma	Fibre for ropes	June – July/All the year
Kosa/tassar	On Terminalia tomentosa	Cocoons for tassar silk	March – May
Mangoes	Mangifera indica	Edible Fruits	June – July
–	Betul Oil	Exported for Scent Making	—
Jamun		Edible Fruits	May – June
Head-loads of wood	Many species of trees	Fuel-wood.	Throughout the year

better off in terms of irrigation intensity, and this possibly links up with the improved agricultural productivity in Rabi.

The implication of continuing low productivity in the eastern region of the state is that income earning opportunities from agriculture would be limited. There is a need to bring this region into focus and look at ways of making a concerted effort to increase irrigation intensity, as well as undertake watershed development in a big way. Simultaneously, non-agricultural land based activities need to be considered. This applies also to the pockets such as Jhabua and Betul in which similar conditions prevail. On the other hand, in the case of relatively better irrigated districts in the Nimar region, technical solutions should be sought to enhance productivity of Kharif crops.

FOREST BASED LIVELIHOODS

Nearly forty percent of the states villages are either forest villages or are situated close to forests and forests play a significant role in the livelihoods of people in such villages. It is difficult to estimate the exact number of people dependent to some extent on forests, since data captures by either the census operations or by NSS do not capture employment sources that give support for brief periods. In case of persons collecting Non Timber Forest Product (NTFP), the period of direct persons days of employment is not very significant, say ten to fifteen days to a month or so at the maximum overall in an year. But the forest produce plays a significant role in peoples lives is very evident from the three brief case studies of villages presented here. A list of some of the main NTFPs collected in Madhya Pradesh is also presented in the Box on NTFPs.

The regime governing forests and peoples rights over forests is highly regulated and governed by national acts. In Madhya Pradesh the large population that depends on forests for incomes and consumption has had to contend with such laws, but there has also been a gradual shift on part of the

Livelihoods of Non-Timber Forest Produce (NTFP) Collectors

A study of 53 households living on the outskirts of the Panna Reserve Forest in Panna district, revealed that the villagers earned a total annual income of Rs. 3.23 lakhs approximately through collection of NTFPs. They plucked tendu leaves worth Rs. 1.5 lakh which were sold to tendu patta co-operatives, collected mahua leaves and nuts worth Rs. 98,000 which were either sold in haats or to traders in barter and sold fuel wood to the Majhgaon Diamond Mine Employees Colony worth Rs. 65,000 annually. While these households also had other income sources, the NTFP income of the households accounted for the 85 % of the total income of 46 households in the village. On an average 2.7 persons from 46 families were engaged in NTFP collection and marketing. Each family on an average earned Rs 9450 from the forests and total incomes accruing to them annually was Rs 11,000/-

In another village of 83 households in Jhabua district, 68 households draw approximately 35 percent of their total annual income from forest produce. This village of mixed caste households has two JFM committees. The nearby dry deciduous mixed teak forest has about 50 percent vegetation density. All the big trees are below thirty years of age. It has about 60 % Tectona grandis or sagwan population, besides, khakra, sirish, bamboo, neem, tendu, pipal, dhawra, mango, jamun and some piloo trees. There is a big undergrowth of bers, khakra, small khajoor, Adhatoda or adusa, gobar-sungha and ratanjot plants.

In this village, details of NTFP quantity collected and value realised by villagers is presented below.

Mahua Flowers	Mahua Seeds	Tendu Leaves (Bags)	Gums
5261 Kg.	3916 Kg	163	1.5 Qt. for Rs. 2250
@ Rs. 8 per Kg.	@ Rs. 10 per Kg	@ Rs. 400 per bag	Value realised per Kg. and amount in Rs.
= Rs. 42088	= Rs. 39160	= Rs. 65200	
Total income realised annually from the NTFPs = Rs. 1.49 lakhs approx.			
Average family income = Rs. 2180			

Source: Fieldwork by Project Team

Besides the sales through village committees each of the NTFP collectors sells some small amounts of NTFPs individually in haats for about Rs. 800 per annum. Hence the total average income through the NTFPs is Rs. 2980 or Rs. 3000 per household per annum.

Forest Produce Gathering in Mahakaushal

Collection of Non-timber Forest produce or NTFP includes food, fuel, fodder, tendu leaves, Mahua flowers and seeds as well as Chironji or Achar seeds. Fruits like mangoes, custard apples, guavas and small berries are also abundant in this area. Some other forest produce gathered are the tuberous roots of indigenous trees which are used for eating/ consumption, some green leaves of grasses and herbs used as vegetables and fodder and leaves of Khakhra (chevla/dhak), used by the ginger cultivators to cover the tender plants of ginger and for making plates and bowls by sticking the leaves together with tiny wood pieces or scraping. For those people who have access to forest and NTFP, say, typically, a household of seven persons, with four of them engaged in NTFP collection, is able to collect tendu leaves worth 200 rupees per day for seven to ten days in a year i.e., an annual income of fourteen hundred to two thousand rupees. Similarly, for mahua seeds and flowers, the collectors get about the same amount of money over 30-40 days in a year. On an average, they collect mahua flowers and seeds from about 4-5 trees and each mahua tree yields about Rs.500/- worth of NTFPs per year. Hence Rs. 2000-2500 is the average income from mahua. Other NTFPs and fuel wood, fodder and foods fetch a household with four collectors yield worth about Rs.1000/- per year. Hence on an average, a household with four collectors, collects NTFP, worth Rs.4400 to 5500 per year.

It needs to be stressed that all households in a village do not collect NTFPs. It is the people at the subsistence level of livelihood (generally SCs and STs), who collect NTFPs.

government to grant more rights to people with regard to basic needs from forests, and to bring people more and more into management of forests. Rights of nistari were granted to people way back in 1970s. Madhya Pradesh today also has a large programme under Joint Forest Management (JFM). The impact or the results of the JFM programme have certainly been beneficial as far as the forest cover in the state is concerned. The latest satellite imagery released by ISRO shows that the forest cover in the state has increased over the last five years by 376 sq kms. Much of the credit for this could go to the effective role played by JFM groups in the state. However it must be kept in mind that satellite imager data does not show the quality of forest.

The crucial role that forests play in the lives of millions who either reside in forests or in villages within a five kilometre periphery of the state is significant. Inspite of efforts such as rant of nistari rights, and the JFM programme, the relation between people and the forest management and regulatory regime under the acts has sometimes led to conflict between villagers and forest authorities.

Organised employment

Most of the social security laws in the country are applicable only to organised workers. In Madhya Pradesh, there were 21.89 lakh workers in the organised sector in 1997. If we just compare the workers in the organised workforce with estimates of total workers in the state, the percentage share of organised workers to total workers was just about 6.2 percent in 1993/94, and should be around six percent even today. Unorganised workers form around 94 percent of the total workforce in the state. The vast majority of the workforce including agricultural labour, construction labour and labour in traditional leather tanning, forestry, fishing, bidi rolling, household industry etc. as also village artisans, urban informal workers coming under the general categories of unorganised sector are wholly out of any reckoning in the various statutory laws in the country. These workers are unprotected by legislation and most of them tend to be poor.

Employment in the organised sector: Public and private sector

Much of the concern about the lack of employment reflects a strong preference for employment in the organised sector. The jobs in organised sector generally provide much higher levels of wages than in the unorganised sector and also provide much greater job security and other benefits. The available information summarised in Table 6 shows that it increased from 12.88 lakhs in 1975-76 to 21.89 lakhs in 1997-98.

The Table also shows deceleration in growth of employment in organised sector over time. In the later part of 1990s, the growth rate was around 0.9 per cent per annum. Although, in the two years between 1995-96 to 1997-98 there has been a sudden jump in private sector jobs, thereby pushing up employment overall in the organised sector. But this rise appears to be more of annual fluctuation feature, since other evidence does not point to such a massive private sector growth in recent years.

One of the main reasons for the lower growth in organised employment is the slowdown in public sector employment in the 1990s. Public sector employment has actually declined from 1990-91 to 1997-98 in the state, and impacts growth rates for organised employment, since its share has been around a third of all organised sector employment. The higher growth rates in private sector employment, averaging around 3 percent per annum in 1980s, and over four percent in 1990s has not really been able to compensate for loss of workforce in public sector.

Changes in sectoral distribution of workers and rural non-farm employment

Here we examine diversification in terms of shifts across

Table 6: Employment in Organised Sector

Years	Public	Private	Employment (in lakhs)	Compound Growth Rate	Public	Private	Total
1975	952564	335904	1288468	1975-76 to 1980-81	2.87%	5.28%	3.52%
1980	1097584	434511	1532095	1980-81 to 1985-86	2.95%	3.18%	3.02%
1983	1198811	467476	1666287	1985-86 to 1990-91	2.32%	2.97%	2.51%
1985	1269487	508042	1777529	1990-91 to 1995-96	-0.06%	3.14%	0.91%
1987	1323803	517787	1841590	1995-96 to 1997-1998	-0.51%	6.88%	1.96%
1990	1423987	588195	2012182	1990-91 to 1997-98	-0.19%	4.19%	1.21%
1993	1436574	665411	2101985				
1995	1419371	686370	2105741				
1996	1419222	747689	2166911				
1997	1404964	784038	2189002				

Source: Various issues of Economic Survey, Government of Madhya Pradesh

broad sectors in rural areas for the period 1983 to 1999-00. Diversification of rural livelihoods is important for several reasons. At the economy level, the demographic pressures on land have been increasing significantly in the state. With its share of around 35 per cent in GDP, Agriculture and its allied activities has to bear the burden of 75 per cent of rural workers. Therefore, labour productivity has been low in agriculture. Urban areas have their own problems of demographic pressures. As a result, rural non-farm sector becomes an escape route for agricultural workers. In order to increase wages in agriculture and to shift the workers to more productive areas, rural diversification is almost the only avenue open.

While examining the trends, usually the numbers for the year 1987/88 are disregarded as that was a period of severe drought affecting most parts of the country, though its impact on Madhya Pradesh was not so severe. Still the dip that is seen in rural workforce in the primary sector in this year is directly a result of drought and not of rural workforce diversification. The percent of workers in primary sector in rural Madhya Pradesh has been much higher than that of all-India rural in 1983 and for all subsequent years for which data is presented. The gap between the share of primary sector workers in rural India to the share in rural Madhya Pradesh has also been higher in the 1990s than in the 1980s. This shows that the change in workforce diversification has been much faster in other parts of India than has happened in Madhya Pradesh.

Table 7: Broad Sectoral Distribution of Workers in Rural M.P. and India

Year	Rural M. P.			Rural All India		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
1983	90.7	4.8	4.6	81.5	9.0	9.4
1987-88	87.9	6.8	5.3	78.3	11.3	10.3
1993-94	90.4	4.5	5.1	78.2	10.2	11.5
1999-2000	87.5	5.8	6.9	76.1	11.3	12.5

Source: NSS Rounds

There has been a gradual expansion of the tertiary or services sector in Madhya Pradesh, with manufacturing related activities growing very gradually in rural Madhya Pradesh (see Table 7). In fact, secondary sector share of employment even dropped between 1983 and 1993-94, only to pick up from then to 1999-2000. The percent of workers in secondary sector in rural Madhya Pradesh was 4.8 per cent in 1983 and 5.8 per cent in 1999-2000; that in all-India it increased from 9 per cent to 11 percent during the same period. In 1983, the tertiary sector's share in the state was half of that of all India and has remained so even today.

Table 8: Percentage of Non-Farm Employment in Rural Madhya Pradesh and Rural All India

Year	Males		Females		Total	
	M.P.	All India	M.P.	All India	M.P.	All India
1983	12.6	22.4	6.2	12.2	7.2	18.4
1987-88	14.9	25.7	9.5	15.3	12.7	21.6
1993-94	12.7	26	6.2	13.9	10.9	21.7
1999-2000	15.8	28.7	8.6	14.6	12.9	23.8

Source: NSS Rounds

Table 8 shows that the percentage of rural non-farm employment in Madhya Pradesh increased significantly from 7.2 percent in 1983 to 12.7 percent in 1987-88, and thereafter it tended to stagnate or show a decline. This is true for both males and females. In other words, jobs in the rural non-agricultural sector in rural areas were created very slowly. Since rural labour absorption in the non-farm sector is crucial for poverty reduction, what has happened in Madhya Pradesh in the 1990s with regard to non-farm employment creation is disturbing. When we compare the non-farm employment of Madhya Pradesh with India, while a quarter of employment across India is in this sector, it is about half of that in Madhya Pradesh. Even the Census 1991 figures on rural non farm employment supports this. In 1991, the share of rural non-farm employment to total employment was the lowest in Madhya Pradesh amongst all states.

Trends at one-digit level

NSS provides data at different levels of desegregation based on National Industrial Classification (NIC). Table 9 provides the trends in employment in Madhya Pradesh at one digit level. In comparisons over time, we ignore 1987-88 as it is a drought year. As mentioned above the increase in rural non-farm employment has been slow except a jump between 1993/94 and 1999/2000, when workers in this sector in rural areas went up by 25 percent. The increase is mainly concentrated in construction, and trade.

Table 10 provides recent changes for males and females. For males, marginal increases were noticed in non-farm employment such as trading, hotels and restaurant, construction and transport. Manufacturing sector's share increased only a little over this period from 3.2 percent to 3.9 percent. In the case of females, the raise was mainly in Manufacturing and services

Employment in the districts – diversity and the non farm sector

To undertake a regional or district wise assessment we get rich data on employment from the recently released employment figures from the Census of 2001. The 2001 Census has shown

Table 9: Percentage Distribution of Workers by Industry at One Digit Level in Madhya Pradesh, 1983 to 1999/2000

Sector	1983	1987/88	1993/94	1999/2000
	All	All	All	All
Agriculture & Allied	77.4	74.7	76.8	73.6
Mining and Quarrying	1.5	0.8	1.5	0.7
Manufacturing	6.9	8.1	5.7	6.4
Electricity, Water etc.	0.3	0.3	0.4	0.2
Construction	1.7	2.2	1.7	3.0
Trade, Hotel & Restaurant	4.2	4.6	4.5	7.2
Transport etc.	2.0	1.7	1.9	2.2
Services	5.9	7.6	7.6	6.8
Non-farm Sector	22.6	25.3	23.2	26.4
Sector	**1983**	**1987-88**	**1993/94**	**1999/2000**
	Rural	Rural	Rural	Rural
Agriculture & Allied	90.1	87.3	89.1	86.9
Mining and Quarrying	0.6	0.6	1.3	0.4
Manufacturing	4.0	5.0	3.4	3.8
Electricity, Water etc.	0.1	0.2	0.2	0.1
Construction	0.7	1.6	0.9	1.9
Trade, Hotel & Restaurant	1.6	2.1	1.7	2.8
Transport etc.	0.3	0.4	0.5	0.8
Services	2.7	2.8	2.9	3.3
Rural non-farm Sector	9.9	12.7	10.9	13.1
Sector	**1983**	**1987-88**	**1993/94**	**1999/2000**
	Urban	Urban	Urban	Urban
Agriculture & Allied	11.4	13.7	15.1	15.2
Mining and Quarrying	6.5	2.0	2.5	1.8
Manufacturing	22.2	23.0	17.1	17.9
Electricity, Water etc.	1.6	0.7	1.3	0.5
Construction	7.2	5.2	5.6	8.0
Trade, Hotel & Restaurant	17.8	16.5	18.4	26.3
Transport etc.	10.8	8.1	8.8	8.3
Services	22.5	30.4	31.2	22.0

Source: NSS data on Employment and Unemployment

Table 10: Distribution of Workers by Industry at One Digit Level: Males and Females (%)

Sector	Rural Males		Rural Females	
	1993-94	1999-2000	1993-94	1999-2000
Agriculture and Allied	87.2	84.2	93.9	91.6
Mining and Quarrying	1.5	0.4	0.8	0.3
Manufacturing	3.2	3.9	3.2	4.2
Electricity, Water etc.	0.2	0.1	0.1	–
Construction	1.2	2.2	0.4	1.2
Trade, Hotel and Restaurant	2.2	3.9	0.7	1
Transport etc.	0.7	1.2	0.1	–
Real Estate business activities etc.	0.1	0.2	0.0	–
Services (public admin.. Comm. etc)	3.6	3.9	0.9	1.9
Total	99.9	100	100.1	100.2

Source: NSS Rounds

that overall in the state there was a worker participation rate of 42.7. The important indicators assessing both the sustainability of employment and its strengths are the number of agriculture labourers in the total workforce and the share of non-agriculture activities in total workforce, and we can see this data in Table EL 5 late in this report.

The number of agriculture workers can be used as an excellent proxy for finding the level of precarious or unstable livelihoods, as these workers form the most vulnerable and perhaps low earning of all. The diversification of employment on the other hand shows strengths in employment, it is generally an indication of prosperity, and usually pull factors arising out of agriculture prosperity lead to diversification in rural areas.

Overall in the state, there are 28.7 percent workers engaged as agricultural labourers. The districts with a very high share of agriculture labourers are Narsimhapur, Seoni, Mandla and Harda, all above forty percent. Nearly forty percent of the agriculture labourers of the state are concentrated in eleven districts of Rewa, East Nimar (Khandwa), Balaghat, Chhindawara, West Nimar (Khargone), Dhar, Sidhi, Shahdol, Seoni, Satna, Betul, and Sagar. Most of the districts come from the poorer south central part of the state, characterised by heavily forested area and large tribal population. There are also districts of Nimar, and the two on the north eastern part of the state, Rewa and Satna.

Districts with a low concentration of labourers in agriculture are (we do not consider districts with large urban concentration such as Indore, Bhopal, and Gwalior), Morena, Jhabua, Datia, Tikamgarh, Shivpuri, Bhind and Chhattarpur. These districts form the Bundelkhand belt of the state along with some districts from the Chambal/ Giridh belt.

Looking at diversity in employment, from the 2001 Census we get information on share of non-agricultural workers and workers engaged in household industries. We will not look at Bhopal, Indore, Jabalpur and Gwalior due to the high concentration of urban population and large cities in these districts. Sagar and Damoh have a very high number of non agriculture workers – 48 and 42 percent respectively, but

almost half of these belong to household industries, which would mostly be bidi rollers. Bidi rolling extends in large measure to Katni, Jabalpur, and Satna. The districts apart from Sagar and Damoh with a significant non-agriculture workforce (at least 25 percent) are Katni, Hoshangabad, Satna, Ujjain, Morena, Raisen, Bhind, Shahdol, Chhindwara, Vidisha, Ratlam and Chhatarpur. There is no significant regional pattern, but many of these districts have good agriculture.

A few significant zones do appear in terms of diversifying livelihoods, and these would be the belts of Sagar/ Damoh/ Katni/ Jabalpur in central Madhya Pradesh, Gwalior/ Bhind/ Morena in the north, Ratlam/ Ujjain/ Indore in the western Malwa plateau, and the Hoshangabad/ Bhopal belt in the west centre of the state. All these zones have their own characteristics, but the common elements are that they have zones of agriculture prosperity, proximity to a large urban conglomeration and some industrial or industrial service based activity in them. They are also interestingly associated with specific crops or types of produce, such as Mustard associated with Bhind and Morena, and soyabean associated with Ujjain with Ratlam also falling in the soyabean producing zone.

On the lower side of employment diversification fall Dindori, Jhabua, Mandla and Barwani (15 percent non agriculture workers or less). Sixteen districts in all have non agriculture employment less than twenty percent. Such a low diverse base for employment is a worrying situation especially for districts where agriculture potential is low.

Unemployment

Estimates from unemployment come from National Sample Surveys. These are based on assessment of people in the labour force, i.e. they are either working or are looking for work or are not working for reasons other than not getting work (such as illness, holiday, festival etc.) and those amongst them who have not got employment. Unemployment rate is the ratio of unemployed to labour force. Similar to work participation rates, NSS provides unemployment rates by usual status, current weekly status and current daily status.

Usual Status: The unemployment rates are relatively high in urban areas than rural areas in Madhya Pradesh (Table 11). Unemployment rates among males are higher than females in rural and urban areas, except in the drought years of 1987-88, when males must have found it more difficult to get employment as agriculture and allied sector would have dried up substantially. The unemployment rates by usual status for males indicate no growth in unemployment since 1987/88, in both rural and urban Madhya Pradesh. For females there has been a gradual decline in unemployment rates over the same period.

Current Daily Status: As can be seen from Table 11, the unemployment rates according to CDS are higher than those of usual status. Except for females in urban Madhya Pradesh, the unemployment rates of males and females went up considerably between 1987/88 to 1999/2000.

Underemployment

Underemployment is commonly defined as the underutilisation of labour time of the workers. Some of the workers classified as usually employed do not have work throughout

Table 11: Usual Status and Current Daily Status Unemployment Rates in M.P. and India

	Usual Status				Daily Status			
	M.P.		India		M.P.		India	
				Rural				
	M	F	M	F	M	F	M	F
1983			2.1	1.4			7.5	9.0
1987-88	0.9	1.2	2.8	3.5	2.3	2.1	4.6	6.7
1993-94	0.8	0.2	2.0	1.3	2.6	2.6	5.6	5.6
1999-'00	0.7	0.2	2.1	1.5	4.0	3.5	7.2	7.0
	Urban							
1983			5.9	6.9			9.2	11
1987-88	4.3	5.6	6.1	8.5	6.0	7.8	8.8	12
1993-94	5.7	4.6	5.4	8.3	7.0	5.9	6.7	10.4
1999-'00	4.3	1.6	4.8	7.1	7.2	5.7	7.3	9.4

Note: Usual Status refers to Principal status
Source: Different rounds of NSS data.

Table 12: Underemployment: Per 1000 Distribution of Person-Days of Usually Employed (Principal and Subsidiary) by their Current Daily Status in Rural M.P

Current daily status	Males		Females	
	1993-94	1999-2000	1993-94	1999-2000
Employed	926	917	672	703
Unemployed	18	32	17	24
Not in labour force	56	52	311	273
Total	1000	1001	1000	1000

Source: NSS Rounds

the year due to seasonality in work or otherwise and their labour time is not fully utilised – they are therefore underemployed.

The unemployed person days for rural males in Madhya Pradesh has increased from 1.8 percent in 1993-94 to 3.2 percent in 1999-00 (Table 12). Similarly it increased for rural females. For the females, the percentage of employed increased significantly while that of 'not in the labour force' declined during the period 1993-94 and 1999-2000.

However, when we see the data given above, we will see that un-employment rates are particularly low, and that the figures for un-employment somehow do not ably justify or explain the high levels of poverty persisting, whether in Madhya Pradesh or in the entire nation. Further, field studies and the general condition of poor indicates that the poor in India cannot afford to remain without work for any period of time, whatever be the remuneration they receive for their work. With low illiteracy and education, the poor do not have any qualms or constraint in taking up any kind of work. Not just these, with hardly any reserves of cash or kind, residents of poor households cannot afford to sit a home. Unemployment and employment figures do not adequately cover under employment or low wages and un-sustainable livelihoods.

Apart from basic un-employment there is large scale under – utilisation of workforce that figures presented in the tables hide. Most agriculture labourers remain idle for 3-4 months in a year. Outside the agriculture season, many casual labourers get work up to two thirds of the days at the maximum.

Quality of Employment

Focusing on employment and unemployment fails to capture an aspect of the employment problem, which is extremely important, and this relates to what may be called the quality of employment. Income or wages is one of the variables reflecting quality. Many people are employed but they get low wages and income. That is why there is so much gap between unemployment (based on time criterion) and poverty and we have

Table 13: Distribution of Usually Employed by Category of Employment

Year	Rural M. P.			Rural All India		
	Self Employed	Regular Employed	Casual Labourers	Self Employed	Regular Employed	Casual Labourers
1987-88	64.9	7.3	27.8	59.4	7.7	32.9
1993-94	61.9	4.0	34.1	58.0	6.4	35.6
1999-2000	56.6	3.5	39.9	55.8	6.8	37.4

Source: NSS Rounds

Table 14: Percentage of Casual Labour in Rural Areas for Males and Females

Year	M.P.		All India	
	Males	Females	Males	Females
1987-88	25.5	31.0	31.4	35.5
1993-94	31.7	37.6	33.8	38.7
1999-2000	37.1	44.1	36.2	39.6

Source: NSS Rounds

many numbers of 'working poor'. In this section, we examine changes in variables representing quality of employment such as casualisation, labour productivity, real wages and, poverty by sectors.

Casualisation of Labour: The proportion of self-employment has been declining over time (Table 13). One of the reasons is the decline in farmers cultivating their own land owing to fragmentation of holdings. There has been sharp increase in casual labour, to the extent of 12 percent as a percentage of all workers. In recent years, the percentage of casual labourers has become marginally more than the same for all India. As shown in Table 14, the percentage of casual labour increased for both males and females.

Labour Productivity

Gross state domestic product (GSDP) at constant prices per NSS worker – provides one meaningful absolute measure of employment quality. As per NSS, worker productivity of Madhya Pradesh and India is provided in Table 15. Labour productivity in agriculture remained more or less stagnant between 1983 and 1993/94, before rising somewhat in 1999-2000. In construction there was a significant decline over this period, especially in 1999-2000. On the other hand, manufacturing sector recorded significant increase continuously since 1983 – and more than doubling to 1999-2000. Transport was another sector where per worker productivity rose to twice its value between 1983 and 1999-2000.

Table 15: Labour Productivity (GSDP per UPSS worker) in Different Sectors (Rs. At Constant 1980-81 Prices) in M.P. and All India

	M. P. (GSDP per person)					
Year	Agriculture	Construction	Services	Manufacturing	Transport	Trade
1983	2306	6955	8261	7439	7619	7881
1987-88	2184	5716	8631	7049	10073	8540
1993-94	2387	7163	9142	12813	11300	10218
1999-2000	2571	5168	14093	15527	14520	8115
Average of 16 states GSDP per person						
1983	2491.65	9450.89	9196.60	7529.89	8761.21	8210.72
1987-88	2532.92	8160.88	10714.26	8453.60	10005.86	8359.71
1993-94	2870.87	9139.12	12326.58	10800.23	11468.26	9678.27

Source: For Madhya Pradesh calculated by MPHDR Team from NSS (Various Volumes) and Economic Survey Government of Madhya Pradesh (Various Volumes) and Figures for India from Bhalla (2000), Bhalla (2001)

A comparison with All India upto 1993-94 shows that the levels of labour productivity in Madhya Pradesh in Agriculture, Construction, and Services were higher for all India. The near stagnant or declining per worker output in agriculture and construction points to the crisis of productivity and the urgent need to take people out of these sectors into manufacturing, transport, services, and even trading activities.

A more recent estimate on per worker output or worker productivity and per annum of growth rates of productivity are given in Tables 16a and 16b below (based on GDP at constant 1993/94 prices). These estimates show that manufacturing and services recorded the best per annum increase. On the other hand agriculture was in fact in the negative.

Real Wages

Trend in real wages is an important indicator of changes in livelihoods. Table 17 indicates that real wages increased in the later half of the 1980s, but growth rate was very low in the 1990s. The trend rate of growth for males declined from 4.55% in the 1980s to 0.071% in the 1990s. If we look at the real wages numbers in this decade, wages have stagnated. Growing rural wages in real terms was one of the key determinants of poverty reduction in India in the 1980s. The trend in wages in last decade is therefore worrying. It is also not clear

Table 16a: Output per Worker in Madhya Pradesh (at GSDP at constant 1993/94 prices)

Industry	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Agriculture, Forestry, Fishing	12,226	11,920	11,783	12,119	11,340	12,039	11,966	11,893
Mining and quarrying	164,913	156,971	166,631	173,079	173,376	174,856	176,664	178,490
Unregistered manufacturing	53,319	61,368	63,879	70,881	72,811	76,806	81,611	86,717
Registered manufacturing	49,613	55,350	58,246	60,297	64,038	69,157	73,086	77,237
Electricity, Gas and water supply	410,532	416,537	460,133	453,296	455,649	463,876	471,211	478,661
Construction	49,871	46,854	51,262	49,713	48,161	49,330	48,867	48,408
Trades, hotels, etc	51,938	50,438	50,425	52,672	50,872	49,142	48,256	47,386
Transport, storage and communications	74,890	77,322	80,810	84,314	87,657	90,071	92,325	94,635
Finance, insurance, Real estate & business services	388,092	400,503	429,745	460,271	483,253	505,702	527,106	549,415
Community, social & personal services	33,949	34,512	36,722	40,299	40,378	44,022	45,904	47,866
Average	25,093	25,269	26,027	27,105	26,764	27,918	28,339	28,774

Table 16 b: Worker Productivity Increase per annum in Madhya Pradesh (at GSDP at Constant 1993/94 Prices)

Industry	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	Average Increase
Agriculture, Forestry, Fishing	-2.50%	-1.15%	2.85%	-6.43%	6.17%	-0.61%	-0.61%	-0.33%
Mining and quarrying	-4.82%	6.15%	3.87%	0.17%	0.85%	1.03%	1.03%	1.19%
Unregistered manufacturing	15.10%	4.09%	10.96%	2.72%	5.49%	6.26%	6.26%	7.27%
Registered manufacturing	11.56%	5.23%	3.52%	6.20%	7.99%	5.68%	5.68%	6.55%
Electricity, Gas and water supply	1.46%	10.47%	-1.49%	0.52%	1.81%	1.58%	1.58%	2.28%
Construction	-6.05%	9.41%	-3.02%	-3.12%	2.43%	-0.94%	-0.94%	-0.32%
Trades, hotels, etc	-2.89%	-0.03%	4.46%	-3.42%	-3.40%	-1.80%	-1.80%	-1.27%
Transport, storage and communications	3.25%	4.51%	4.34%	3.97%	2.75%	2.50%	2.50%	3.40%
Finance, insurance, Real estate & business services	3.20%	7.30%	7.10%	4.99%	4.65%	4.23%	4.23%	5.10%
Community, social & personal services	1.66%	6.40%	9.74%	0.20%	9.02%	4.27%	4.27%	5.08%
Total	0.70%	3.00%	4.14%	-1.26%	4.31%	1.51%	1.53%	1.99%

Source: Various Volumes of Economic Survey, Government of Madhya Pradesh, and Sundaram (2001)

Table 17: Nominal and Real Wages of Field Labour in Agriculture

Year	Nominal Wages (males)	Real Wages (males)
1985-86	9.61	9.61
1986-87	10.30	9.88
1987-88	11.15	n.a
1988-89	12.45	n.a
1989-90	14.44	11.77
1990-91	17.12	12.01
1991-92	19.31	11.44
1992-93	23.33	13.96
1993-94	24.41	12.86
1994-95	26.51	12.49
1995-96	29.25	11.27
1996-97	32.13	11.67
1997-98	35.39	11.66
1998-99	38.66	12.08
Growth rate		
1981-1990	12.232%	4.552%
1990-1998	10.721%	0.071%

Note: Real wages are obtained by deflating the money wages with Consumer Price Index for agricultural labourers.
Source: Calculations by Project Team on data from Various Volumes of the Statistical Abstract, and Economic Surveys, Directorate of Economic and Statistics, Government of Madhya Pradesh

why the increase in real wages are not commensurate with that of labour productivity.

The non-agricultural worker productivity and output per worker is higher than those for agriculture. It indicates that diversification to non-agriculture may be due to pull factor rather than push factor.

STRATEGIC OPTIONS

Challenge

The above facts on macro scenario shows that the immediate challenge is to diversify the activities which include shifting the workers to non-agriculture sector to improve the livelihoods of poor workers. It may be noted that agricultural growth would not be sufficient to absorb the growing labour force. As shown above, In India as well as in Madhya Pradesh, unemployment rates are not high. The rates are around three to five per cent in MP. This is because unemployment rates are based on time criterion. Poor people are too poor to be unemployed for a long time. We have the concept of "working poor". In other words many people are working at low wages, low working conditions in agriculture and informal sector. Therefore, the challenge is to shift these workers to high productivity sectors and also create new jobs in the non-agriculture sector. Thus, the real nature of the unemployment problem is not that people are not 'employed' in some activity but that large number of those classified as employed are engaged in low quality employment, which does not provide adequate income to keep a family above the poverty line. Besides, the employment

opportunities available in the market too often do not come up to expectations of the new and increasingly educated entrants to the labour force. The employment strategy we need therefore is not a strategy, which ensures an adequate growth in the volume of employment but one, which ensures a sufficient growth in high quality of employment opportunities.

Around 94 per cent of the Madhya Pradesh workers are in the unorganised sector. Therefore policies have to take into account the unorganised sector. The options will also have to deal with equity and reduce the gap between per worker outputs, and wages amongst different sectors and ensure that sectors employing larger numbers provide better incomes.

Projections and Strategic Options[3]

In order to have macro strategies, we need to know the likely scenario of employment, investments needed in future. Therefore, we have made projections in Table 18 for the workers and investments in the five-year period and 20 year period. Also, five scenarios of projections were made in order to know the impact of investments in different sectors on poverty and inequality. The procedure followed for projections are the following.

- Using employment data of Census 1981 and 1991 for 10 NIC (National Industrial Classification) categories (one digit level) and State Domestic Product (SDP) data, we computed the Compound Annual Growth Rate (CAGR) of output per worker
- Based on this, we projected employment and output in each category for 2005 to 2020
- The employment and output along with the Incremental Capital Output Ratio (ICOR) was used to estimate the investments needed and the CAGR of SDP for 2005 to 2020

The following assumptions were made regarding ICOR

- In general, productivity enhancement has been assumed to be coincidental with increase in ICOR
- Accordingly, ICORs have been increased where they were low
- However, ICORs have been reduced where efficiency gains are likely to set in due to private ownership, competition etc.

The projections show that employment would increase from 29.6 million in 2001 to 44 million in 2020 i.e. by 14 millions. If we add the 3.7 million backlog of unemployed and

Table 18: Projections of Workforce (in millions) in Madhya Pradesh

Industry	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Agriculture, Forestry, Fishing	15.66	16.00	16.35	16.70	17.06	17.43	17.81	18.20
Mining and Quarrying	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15
Unregistered Manufacturing	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53
Registered Manufacturing	0.97	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Electricity, Gas and Water Supply	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
Construction	0.54	0.56	0.59	0.62	0.65	0.68	0.71	0.74
Trades, Hotels, etc	1.20	1.27	1.34	1.41	1.49	1.57	1.66	1.75
Transport, Storage and Communications	0.41	0.43	0.44	0.46	0.47	0.49	0.51	0.53
Finance, Insurance, Real Estate & Business Services	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12
Community, Social & Personal Services	1.39	1.40	1.41	1.42	1.43	1.45	1.46	1.47
Total	**21.02**	**21.49**	**21.96**	**22.45**	**22.95**	**23.47**	**24.00**	**24.55**
Projections								
Population	**1981**	**1991**	**2001**	**2005**	**2010**	**2015**	**2020**	
Population, actual and projected		48.56	60.38	69.0	78.4	88.7	99.9	
Growth rate per annum projected for next five years			2.70%	2.60%	2.50%	2.40%		
WPR %		50%	49%	48%	46%	45%	44%	
Workforce (in millions)		**24.3**	**29.6**	**33.1**	**36.1**	**39.9**	**44.0**	

[3] This sub-section is based on Mahendra Dev and Mahajan (2000)

severely under employed in 2000, labour force increase by 2020 would be 18 million. These numbers in a sense sum up the employment problem for the state in the coming decades.

Apart from the workforce numbers, we also need to consider the Incremental Capital Output Ratio in the state in this decade for our projections and evolving strategic options (see Table 19a and 19b).

Employment Strategies: Five Options

Next question is to examine the strategic options, which would give an idea of the likely impact on employment, poverty and inequality. Projections have been made for ten major economic sectors covering agriculture, manufacturing and services, for Growth in Output (Value Added), Livelihoods (Employment) and the impact on income disparity (between agricultural workers and average worker). It has been assumed that in the selected sectors, investment will also lead to increase in productivity and reduction in Incremental Capital Output Ratio. The projections of impact of investments on employment, workforce productivity, income disparities between agriculture wages and other wages would ensure that strategic choices lead to best input to output ratio for investments to employment, meanwhile ensuring sustainable livelihoods and better equity.

Growth requires investments, and to build projections, investment scenarios have been worked out. Projections were made for investments in Natural Resources or NR (Land, water, forests, and livestock), in Infrastructure or IF (power, roads, warehouses, market yards, telecom etc.), Human Resource development services or HR (nutrition, health, education, vocational training), and Institutional Development services or ID (financial services, public administration, law and order, local government). Total investment were worked out in the range of Rs 10,000 crore per year (10-15% more than 2000-01 estimates).

The following are the four options discussed.

- ***Status Quo:*** No change from 1981-91 trends and this is termed as Base in the tables below.
- ***Agriculture, and allied (NR) and services (HR)*** sectors productivity has been enhanced, as also employment in the latter two sectors. Here also we are assuming that there is no increase in agricultural employment.
- ***Infrastructure Services (IF) and Institutional development (ID)***, where infrastructure includes Electricity, Gas and Water and Transport and Communications and Institutional Development includes Financial and Business services.
- ***Agriculture, and allied, services, Infrastructure services and Institutional development***, where in the service sectors productivity and employment has been significantly enhanced

In these five options we make assumptions on investments, and corresponding growth rates in incomes, employment, sector change in employment etc.

Findings

Our estimates of the key indicators of different strategic options for employment generation are presented in the table below.

The results of projections and their impact based on the investments mentioned in Table 20 are shown in Table 21.

The projections have been made up to the year 2020. The detailed results of these investments are presented in earlier tables. The best scenario is enhanced investment in NR+HR. This will lead to highest employment, with moderate GSDP

Table 19a: Incremental Capital Output Ratio in Madhya Pradesh, 1993-94

Industry	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	Avg. ICOR
Agriculture, Forestry, Fishing	-10.75	4.35	0.88	-0.92	0.55	2.83	2.86	1.76
Mining and Quarrying	-6.17	5.94	9.70	-229.42	62.37	48.25	49.79	7.82
Unregistered manufacturing	0.45	1.53	0.60	2.27	1.19	1.05	1.04	1.16
Registered manufacturing	2.53	5.35	8.29	5.01	3.98	5.70	5.94	5.26
Electricity, Gas and Water Supply	13.46	4.33	41.23	16.39	11.93	12.44	12.38	11.49
Construction	-2.82	0.38	3.33	3.57	0.74	1.41	1.43	1.81
Trades, Hotels, etc	1.02	0.49	0.29	1.43	1.42	0.79	0.81	0.89
Transport, Storage and Communications	4.48	3.77	3.76	3.93	4.62	4.77	4.73	4.30
Finance, Insurance, Real Estate & Business Services	2.23	1.18	1.15	1.45	1.50	1.55	1.51	1.51
Community, Social & Personal Services	2.96	1.04	0.68	6.13	0.73	1.32	1.30	2.02
Total	**4.36**	**2.48**	**2.04**	**13.57**	**2.04**	**3.53**	**3.56**	**4.51**

Table 19b: Annual Rate of Change in ICOR in Madhya Pradesh

Industry	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	Avg. ICOR Growth rate
Agriculture, Forestry, Fishing	-1.41	-0.80	-2.05	-1.60	4.19	0.01	-0.27
Mining and Quarrying	-1.96	0.63	-24.66	-1.27	-0.23	0.03	-4.58
Unregistered manufacturing	2.40	-0.61	2.79	-0.48	-0.12	0.00	0.66
Registered manufacturing	1.12	0.55	-0.40	-0.20	0.43	0.04	0.26
Electricity, Gas and Water Supply	-0.68	8.52	-0.60	-0.27	0.04	-0.01	1.17
Construction	-1.13	7.83	0.07	-0.79	0.91	0.01	1.15
Trades, Hotels, etc	-0.52	-0.40	3.92	-0.01	-0.44	0.02	0.43
Transport, Storage and Communications	-0.16	0.00	0.05	0.18	0.03	-0.01	0.01
Finance, Insurance, Real Estate & Business Services	-0.47	-0.03	0.26	0.03	0.04	-0.03	-0.03
Community, Social & Personal Services	-0.65	-0.35	8.02	-0.88	0.81	-0.02	1.16
Total	**-0.43**	**-0.18**	**5.64**	**-0.85**	**0.73**	**0.01**	**0.82**

growth and least income disparity. Investments in Agriculture and allied and Services option seems to be the most desirable from the point of view of increasing employment, while reducing poverty and income disparity significantly

The second best scenario is enhanced investment in NR+HR+IF+ID. This leads to High employment with highest GSDP growth and moderate income disparity. This option including all sectors is better in terms of employment created, but requires more investment and does not reduce income disparity as much

The scenario of enhanced investment in IF+ID will lead to moderate employment generation, with moderate GSDP growth and higher income disparity. The result of investment in industry generates lowest employment, with highest GSDP growth and highest income disparity.

Putting the strategic options in a box, the matrix in Table 21 exhibits the projected positive impact on different groups by investing in different sectors.

Table 20: Projections of Investments and Compound Annual Growth Rate (CAGR) of Output per Worker

CAGR of GFCF in the five year period		1993-2000	2001-05	2006-10	2010-15	2016-2020
Agriculture, Allied and Forestry	NR	2.5%	5.0%	4.0%	4.0%	3.0%
Commerce and Services	HR	3.5%	7.0%	6.0%	5.0%	5.0%
Electricity Gas and Water	IF	3.9%	7.8%	7.8%	6.0%	6.0%
Transport and Communications	IF	5.5%	8.0%	8.0%	6.0%	6.0%
Financial and Business Services	ID	3.1%	5.0%	5.0%	3.0%	3.0%
Average annual investment in five year period in Rs crores	Base		11061	13249	15991	19454
Average annual investment in five year period in Rs crores	NR+HR		11194	13496	16355	19913
Average annual investment in five year period in Rs crores	IF+ID		11471	14229	17429	21468
Average annual investment in five year period in Rs crores	NR+HR+IF+ID	11604	14475	17713	21748	
CAGR of productivity and CARR of ICOR as proportion of CAGR of GFCF in that five year period is shown below						
Policy scenario →	HR	ID				
GFCF CAGR to ICOR, CARR factor	0.20	0.20				
GFCF CAGR to Productivity, CAGR factor	0.40	0.10				

GFCF - Gross Fixed Capital Formation, CAGR - Compound Annual Growth Rate, CARR -Compound annual reduction rate, ICOR - Incremental Capital Output Ratio

Table 21: Impact of Investments and Growth in Different Options on Key indicators

Scenario →	Base	NR+HR	IF+ID	NR+HR+IF+ID
Unemployment 2005 in millions	5.20	4.84	5.17	4.80
Unemployment 2010 in millions	4.41	3.36	4.31	3.26
Unemployment 2015 in millions	4.04	1.90	3.86	1.72
Unemployment 2020 in millions	3.28	-0.28	3.02	-0.41
GSDP growth 2005	4.27%	4.42%	4.45%	4.60%
GSDP growth 2010	4.09%	4.30%	4.41%	4.61%
GSDP growth 2015	3.96%	4.20%	4.35%	4.53%
GSDP growth 2020	3.89%	4.12%	4.25%	4.37%
Disparity ratio 2005	2.67	2.65	2.69	2.67
Disparity ratio 2010	2.92	2.88	2.98	2.94
Disparity ratio 2015	3.18	3.09	3.30	3.20
Disparity ratio 2020	3.45	3.31	3.64	3.47

GFCF-Gross Fixed Capital Formation, CAGR-Compound Annual Growth Rate, CARR-Compound Annual Reduction Rate, ICOR-Incremental Capital Output Ratio

Invest in ↓ Groups →	NR	HR	IF	ID
Landless	High	Medium	Low	Medium
Tribals	High	Medium	Low	Medium
Urban unskilled	Low	High	Medium	Medium
Women	Medium	High	Medium	Medium

Constraints, Policies and Recommendations

In this previous section we have discussed that public sector cannot generate jobs and the future employment has to be created in organised and unorganised private sector. Government should act as a facilitator to increase private sector investment, which in turn increases employment. In this section, we will discuss about constraints for private sector participation and suggest recommendations for promotion of employment in different sectors of Madhya Pradesh.

Livelihoods in Madhya Pradesh are very largely dependant on agriculture, or are forest based or lie in the urban un-organised sector. It must also be mentioned here that livelihoods, or livelihood sectors no longer exist purely in primarily rural and urban divisions, but extend from the one to the other. There is no strict rural or urban livelihood region or sector.

Within the wide range of livelihoods, there are those that exist at subsistence levels. The vulnerable groups amongst those employed are the landless labourers, and the marginal farmers, the tribals, the urban unskilled labourer, and women, both in the rural and in the urban areas.

Trends show that as a rounded figure, approximately ten lakh persons would be entering the workforce every year over the next two decades. The challenge for livelihoods promotion over the next twenty years is to ensure productive livelihoods for this number, as also for the existing 25 million workers and the five million unemployed. This requires a job-led growth of the economy, which in turn needs a specific investment pattern in different sectors.

Changes are required in the pattern of livelihoods in the state. Livelihoods need to be moved from primary sector to secondary and tertiary sectors. The change in employment pattern needs to be substantial enough to reduce workforce in agriculture from over 80% to 40% by 2020. So a large number of workforce would need to move out of agriculture to Manufacturing, Construction and Infrastructure, but primarily and substantially to Services. Not just this, even within agriculture, diversification is needed, from crop cultivation to horticulture, dairy, poultry, fishery and forest-based, and

already there are trends towards this. Further, there is an urgent need to increase productivity and wages.

This kind of change will require policy and institutional changes, and re-focussing and re-prioritising of investments and programme specifics.

Market Failure and Other Constraints

Market failure and other constraints prevent active private sector participation in promising sub-sectors. This in turn has a negative impact on employment. The direct control of and access to natural resources such as land, water and forests, as well on infrastructure such as power and roads, by the Government has restricted action by private sector and civil society institutions. Some examples of market failure and other constraints are given below.

Labour Market Failure: A large amount of seasonal unemployment in south central and south eastern districts co-exists with shortage of agricultural labour in the Malwa districts and in urban manual activities. The abundance of labour in Mandla migrates to depress agriculture wages even during peak demand season in agriculturally prosperous Narsinghpur, whereas in northern Malwa, competition from neighbouring districts and Kota in Rajasthan keeps agriculture wages comparatively higher all through the year.

The "shortage" of adequate labour, which is to say labour with required training or experience is also missing in many sectors. In some place this has also led to construction contractors to go in for mechanical equipment for digging, earthwork, road laying, and so on. The problem is even more severe when one moves up slightly the skill ladder, such as for carpenters, masons, plumbers and electricians.

There is an absence of mechanisms for moving workers out of sub-sectors where demand is declining, such as bidi rolling or handlooms, into those sub-sectors where demand is increasing, such as construction, repairs and small engineering. This failure in the labour market can partly be explained by the lack of information, inadequate rural-urban transportation linkages and inadequate difference in wage rates to compensate for the risk of migration.

Natural Resource Regime: The forest laws and management regime has kept people away from forests. This regime is in place although the economic exploitation of forests, both wood and non-wood produce, is directly based on people, especially those who traditionally and today work in forests and survive very substantially on forest, both as consumers of forest produce and as collectors of forest produce and workers in forests. The forest laws have kept people away from any direct control or any form of ownership or community partnership in preservation and sustainable exploitation of the vast wealth of the forests of Madhya Pradesh. The conflicting interface between forest dependent population and the forest laws has had negative impact on livelihoods of a very large number of people in the state.

In the last decade there has been considerable work in involving people in managing forests through the joint forest management programme, and innovative strategies through the Lok Vaniki Programme, and efforts to promote bamboo cultivation etc.

Credit Market Failure: There is a huge unmet demand for credit. As per the State focus Paper of NABARD, the potential plans prepared by NABARD for the undivided Madhya Pradesh was estimated to be Rs 19,969 crores for the period 1997/98 to 2001/02, compared to Rs 6,978/- actually disbursed. The actual "ground level credit flow" according to NABARD for the new Madhya Pradesh during 1999/2000 was only 75 percent of what has been estimated as potential in rural MP. At the same time, there is no constraint of funds, as is obvious from the Credit deposit ratio of the state at 57.8 percent in March 2000[4]. In fact the credit deposit ratio in Madhya Pradesh has been declining over the years. The average credit per hectare of area cropped in Madhya Pradesh for the year 1999/2000 was just below Rs 560/-. This shows the fairly low agriculture credit dispersed in the state. There is a huge network of banks, even in rural areas, with 2842 rural branches. There are even targets and priority sector lending obligations.

Yet, the availability of credit, both for fixed asset purchases and for working capital, have been a problem area both in terms of access and transaction costs. Due to the inadequacy of loan amount, time delay and excessive paper work in getting a loan from formal institutions, a majority of the producers rely on informal channels, such as traders for working capital. The SHG movement in the state testifies the extent to which the poor face credit constraints and the extent to which they are willing to invest their time in having access to flexible and friendly credit sources.

Apart from credit market failure, the newer rural sub-sectors fail to attract private investment as the private sector seeks opportunities with an assured return considerably higher than the bank interest rates. If the return is higher but perceived risk is also higher, then private sector hesitates from investing. Thus an attempt needs to be made to reduce risk perception through information sharing and appropriate regulatory frameworks. For example, investments in the forestry sector will not come as long as restrictions on felling and transport of timber are not rationalised.

Commodity/Product Market Failure: Lack of information

4. Lower credit-deposit ratio indicates not necessarily 'surplus' but utilisation of funds elsewhere. In general, credit-deposit ratio for rural areas in the country is lower than for urban areas indicating that rural areas are net savers whereas urban areas are net investors.

about new market opportunities has restricted the participation of the private sector or constrained micro-entrepreneurs to continue catering to declining market segments. The example of soybean illustrates this the most. While there is a competitive squeeze in the edible oil market due to cheap palm oil imports, the market for protein focussed soybean product markets has remained untapped. No one has responded to this. This is due to lack of information on new market segments.

Similarly while there is a large market, especially export market, for the *durram* variety of wheat variety grown in Madhya Pradesh (due to high protein content), no marketing arrangements have come about to take advantage of specific demand for this type of wheat.

Generally the role of middlemen in marketing is criticised as they siphon off a major share of the value added. However, the positive role of "middlemen" has to be recognised in marketing products that are produced by the unorganised sector. It includes their role in identifying the market demand pattern, transportation and taking risk of the product damage and price changes in between transporting it from the producer to market. In several cases, members of Self Help Groups find it difficult to market their products. They could actually benefit by dealing with competitive middlemen. The move by State Government to bring in private sector involvement in selling produce of self-help groups indicates a change in the marketing arrangements and could pave the way for an effective marketing intervention.

Infrastructure Constraints: In terms of infrastructure, the state of Madhya Pradesh has been lagging far behind. The index of social and economic infrastructure constructed by the report of the Eleventh Finance Commission places Madhya Pradesh at eighteen out of twenty five states in the country.

Two sectors where the state has had problems are roads and power. The states power situation has suffered due to the bifurcation of the state, with many of the power units going off to Chhattisgarh. Lack of power in rural areas is a constraint for agriculture as well as some of the rural non-farm sub sectors. Any of the medium sized non-farm units require electricity, such as small lathe machines, small wood units, large pottery units, handloom weavers so that they can weave late in the night using electric light. Power is also necessary for any unit expanding from a household enterprise to employing 4-5 people or attempting to increase productivity. Lack of adequate and sustained power has also affected agriculture operations in the last two years due to drought conditions in the state. The recent reforms in the state, charging power supply to rural areas, attempts to streamline distribution and enhance production would certainly reduce uncertainties and shortfalls in power within the next year or two at the maximum.

The road network of Madhya Pradesh is also not up to the mark. The large land mass coupled with low population density makes it difficult to get good road connectivity. This problem is compounded by the large black cotton soil area where maintenance and upkeep of roads is a challenge, and the undulating and hilly terrains where new roads and their maintenance are difficult and expensive. Recent efforts where private sector has already been partnered in about a dozen major roads in the state for construction and maintenance, the efforts in rural connectivity through the state governments own efforts from mandi cess levied for better rural transport should help the rural road connectivity in the state. This will be further assisted by the roads being built under the Prime Ministers Gram Sadak Yojana. Road connectivity has very direct benefits such as marketability, push to the transport and rural tourism sectors, local horticulture production, etc.

The telecommunication network in the state has also been lagging far behind national achievements. However the last few years have changed the situation in Madhya Pradesh. The public sector provider BSNL along with private sector telecom providers have given the state a very good networked system, and the state can not only boast of being the first state to have private telephony, but also the largest fibre optic network in India.

The lack of training and infrastructure is also felt in almost all sectors, especially in rural non-farm sub sectors. There are funds and provisions available for these under various schemes, and the state government has been utilising the funds so available (eg. all funds for training in SGSY are being fully utilised), there is need for more participation. Training cannot be handled by government alone and private sector involvement is essential.

Policy Suggestions and Recommendations

The Government has to act as a facilitator and create favourable conditions for private sector participation and identify and prioritise key sectors with employment potential and ensure successful implementation. The state has already ventured on three sets of initiatives in the state directed at promoting livelihoods. One initiative is the set of strategies employed at creating conditions for increasing productivity of assets and enhancing the productive potential of people and their productive assets, such as the watershed mission and Joint Forest management. The other initiative has been two major programmes, one the Indira Gandhi Garibi Hatao Pariyojana that covers fourteen of the states poorest districts, and another that is on the anvil is Rural Livelihoods Project in seventeen districts. Both these programmes together could provide a platform for sustained and co-ordinated action on livelihoods.

The third set of initiatives is in the realm of policy and legal framework for livelihoods. The state has embarked upon bringing in changes in the land and natural resource (especially

water) management and use regime through a proposed legislation that attempts to ensure equity in the use and exploitation of such resources. Simultaneously there is also an attempt through advocacy to change certain provisions of national forest acts to give greater community control and participation in managing and using forests. These legal efforts will undoubtedly have a substantial impact on peoples' livelihoods. Related with the legal framework, are efforts at the policy level.

The state government has just released the Economic Development Policy of the State, which takes a look at and covers the entire spectrum of economic activities from agriculture to manufacturing, from energy to roads, from social sector development to bio-technology. It provides a comprehensive picture of where the state would like to go, and also comments on what should be the nature and thrust of private – public partnership, and the role of state and its supporting agencies.

Towards promoting livelihoods, the involvement of the state government, and through its direct and indirect incentives, private institutions and private organisations also have to play their part.

The role of the government should be to mainly invest in

- natural resource development (land, water, livestock, forests)
- human development (nutrition, health, education, vocational training)
- Government should attract investment in but not directly invest in infrastructure, industry, construction and trade sectors.

A major responsibility of the government will also be to improve productivity of capital through institutional development services. The investments of government both financial and institutional building on such services as law and order, loan recoveries (strengthening Debt Recovery Tribunals), contract enforcement, regulation of markets etc. These will have a signal impact on investments.

In micro strategies, the issue is of where should investment be attracted and undertaken. Some important principles to be kept in mind are will not to spread everywhere, but select and invest in clusters. Small towns are important engines of rural growth – so there infrastructure, and markets are important. There should focus on one or two small towns other than the district Head quarter in each district, making up around 100 growth clusters for Madhya Pradesh.

Based on the strengths of different employment subsectors, and current trends hundred growth engines have been identified for Madhya Pradesh. There are thirty in Natural resources, thirty in rural and urban small industries, twenty in rural and urban small Infrastructure, and twenty in rural and urban Services. The reasons for selecting a large number are to ensure full-employment and ensure regional

Government Led Promotion of the Soyabean Sector

The promotion experience of soyabean in Madhya Pradesh is one of the major success stories of government led promotion. The soybean sector changed the lives of more than 30 lakh farmers, who shifted from *Kharif* fallow, Minor Millets and Cotton to Soybean Cultivation. But the impact was not just on farmers, but it also affected 40 lakh farm labourer, about 50 thousand are involved in loading-unloading, 10 thousand involved in transportation, 6 thousand involved in 60 odd processing units, and many more in related and support industries, such as production and distribution of Seed, Rhizobium, Fertiliser, Gunnybags, Transport Support, and Dhabas.

What went into making this happen? This was a concerted co-ordinated programme launched through the National Oilseeds Development Programme following the commitment of Government of India to become self-sufficient in edible oils. There was focussed research of oilseeds, and simultaneously in Madhya Pradesh the Tawa dam project went into action, bringing large areas under perennial and assured irrigation.

The state played its role and

- Established a Co-operative Network
- Created Processing Facilities
- Created Warehousing Facilities
- Ensured that No Barriers were Imposed on movement of goods

What went wrong:

- Failed to enter the human grade protein market effectively.
- Could not compete with Oil from Malaysia
- Productivity stagnated around a Tonne-a-Hectare

What could be the way ahead:

- Enhance productivity of soybean
- Farmer is looking for a return per acre of land and not return per tonne
- Even if we can push productivity to about half of world average production, return for farmers would double
- But the market may induce shrinkage in area under soybean

What do we have:

- We have the agro-climatic condition: soil, rainfall, temperature, sunshine
- We have infrastructure facilities to serve such a large area base
- We have 30 lakh farmers in commercial cultivation
- We have a forward looking state administration looking for solutions

Possibly we can look at:

- Organic cultivation of crops, such as cotton, as
  - There is experience of cotton cultivation
  - Agro-climatically suitable
  - With rejection of synthetic fabric, cotton is coming back
  - MP conditions are suitable for eco-friendly production: Maikal Experience
- Look for other similar commodity subsectors where we have a competitive advantage

coverage. The 100 growth engines and 100 growth clusters give a livelihood promotion strategy. It is a "guide to action" for development agencies. In practice, any district would have 3-5 growth engines and each engine would be spread over 5-7 districts.

A list of the possible growth engines for Madhya Pradesh are listed below.

Natural Resource Based Growth Engines

- For the landless and marginal farmers - concentrate on Soyabean and Mustard, Cotton, Wheat and Paddy, Pulses and Jowar, Fruits and Vegetables, Spices, cultivated medicinal and aromatic plants, and repair of agro equipment such as tractors, sprayers, and pumpsets.
- For tribals — natural resource based opportunities lie in NTFPs (tendu, mahua, amla, harra), gathered medicinal and aromatic plants, bamboo and grasses, timber (CP Teak and others), eco-tourism based livelihoods, and natural resource based handicrafts (wood, bamboo, metal).

A list of the possible Human resource development based growth engines would be -

- For the landless and marginal farmers - primary and elementary education, and vocational skills
- For tribals, this would mean investing in natural resource conservation skills and eco-tourism guides
- For women, it will require investing in agricultural skills and livestock rearing skills

The possible growth engines for urban and unskilled would be in repairs and recycling services. These options also mean investing in conserving capital, the environment and generating jobs for the poor.

- In Repairs, the potential lie in repairs of vehicles (which are growing at geometric rates). electrical equipment, electronic goods, and buildings
- Recycling of organic solid waste, paper, cloth, glass, metals, and linking these with. Power generation possible. The promotion efforts for livelihoods would require specific and focussed intervention. These will involve -
- Selection of those growth engines for focused intervention which affect thousands of people e.g. soyabean, dairy, NTFP, power.
- Get professional agencies to draw up plans and implement. This does not call for report writing, but agencies involved in livelihood promotion and action.
- Select clusters for pilot intervention in each growth engine
- Appoint agencies in-charge and empower them, monitor them, incentivise them
- Review every six months and scale up to more locations and more growth engines

Livelihood promotion is a complex task, and needs "collaborative polygons". It means that different types of agencies, people and action is required. The State Government has to be a leader in this field, but not the sole or dominant agency. The role of the State Government is to ensure participation by all concerned organisations and people, and see to it that required initiatives are in place. Government must get into public-private partnerships – with corporate sector and private trade for the market side and NGOs for social mobilisation.

Selected Growth Engines

The growth sectors that should be focused for selected promotion are listed below. The selection of these growth engines is based on their current strength, potential and expected growth track based on trends.

The selection of which growth engine or sector to select and promote must be undertaken regionally and district wise, depending on local field realities.

CONCLUSIONS

In conclusion we examine the employment situation in Madhya Pradesh by providing a profile of trends in employment and unemployment including quality of employment. The paper also discusses about constraints and provides policy suggestions and recommendations for promoting productive employment.

The nature of employment problem in Madhya Pradesh can be summarised as follows.

- Employment in Madhya Pradesh is largely unorganised, rural and non-industrial. The work participation rates declined significantly in both rural and urban areas in the 1990s.
- The employment growth recorded a drastic decline during 1993-94 to 1999-2000 as compared to those for the period 1983-84 to 1993-94. Probably the expectations of increasing employment opportunities due to economic reforms has not materialised at the aggregate level.
- There has been a proliferation of small and marginal farmers over time. The share of cultivators in the total declined while those of agricultural labourers increased.
- Only around 6 per cent of the total work force is in the organised sector in Madhya Pradesh. The growth of employment in the organised sector has declined over time. In the post-reform period, the growth of public sector employment declined drastically while that of private sector employment increased. However, the growth of private sector employment has not been able to compensate for the loss of jobs in the public sector.
- The share of non-farm employment in rural areas has been stagnant since 1983. There has been some variation over the years, but the rural non-farm share has become more or less constant. According to census 1991 estimates, Madhya Pradesh had the lowest share of rural non-farm employment to total rural employment
- There is no sign of increase in the usual status unemployment rates. However, the daily status unemployment

Natural Resource

- Watershed development – to enhance productivity and stabilise incomes of dryland farmers : soya, mustard, arhar, chana, jowar,
- Irrigated crops – wheat, cotton, sugarcane, paddy – to increase productivity and quality for local processing and export marketing
- Horticulture development – citrus, peas, potato, vegetables, flowers, cultivable aromatics
- Joint forest management – tendu, mahua, amla, myrobalans, other NTFPs, bamboo, timber
- Livestock rearing – dairy, poultry, sheep/goat
- Fishery, sericulture
- Minor minerals – stone, sand, limestone

Rural and Small Infrastructure

- Power - decentralised generation, biomass
- Power - local power distribution franchises
- Irrigation : tanks, canals, borewells
- Water - drinking water franchises
- Roads - construction and repairs, toll collection
- Road transport terminals; container depots
- Warehouses and Cold storages
- Plant nurseries; tissue culture units
- Market yards (mandis) and Haats
- Telecom - including voice and Internet

Rural and Small Industries

- Agro-processing: wheat, soyabean, mustard, paddy, pulses, cotton, spices, vegetables
- Crop inputs: bio fertilisers, bio-pesticides
- Livestock based processing: dairy, poultry, fish, leather, meat
- Timber and NTFP: aromatics, medicinal plants, bamboo, tendu (bidi), mahua, amla processing
- Stone processing, cement building materials
- Textiles: handloom (niche products), powerloom, apparel (low and high end)
- Metal, glass, ceramic and plastic products

Services

- Wholesale trading
- Retailing - marketing agencies
- Health care
- Veterinary care
- Education all levels
- Vocational training
- Rural tourism: Hotels and restaurants
- Entertainment services
- Micro-finance – thrift, credit, insurance
- Business and real estate services

Urban Unskilled Services

- Transport of passengers and goods
- Repairs – vehicles, electrical equipment, electronic goods, buildings
- Recycling – solid waste, paper, cloth, glass, metals.
- Retailing (hawking) - food items, vegetables, cloth, other consumables
- Household services - domestic help, child care, old-age care, housekeeping services, catering
- Security services, plumbing/electrical repairs, office services

recorded significant increase in the 1990s. It is a matter of concern for the state. The problem of unemployment is more with the educated and youth.

- Casualisation has been increasing over time.
- Labour productivity showed high growth in agriculture and manufacturing in the 1990s. Inspite of this, the growth of real wages in rural areas declined significantly in the 1990s.

Our macro projections show that focus on agriculture & allied and services option seems to be the most desirable from the point of view of increasing employment, while reducing poverty and income disparity significantly.

We have discussed about the constraints for private sector participation. Market failure in labour, credit, product are some of the constraints. Low infrastructure is another important constraint.

The study recommends that given the problem of unemployment and underemployment for the masses and unemployment for educated, *there is a need to have twin strategies for improving the livelihoods*. The first sub-strategy should aim at rural and urban masses who are illiterate/semi-literate, unskilled, semi-literate/skilled. The second sub-strategy has to address the educated unemployed. The policy goal should be to improve economic growth in rural areas with emphasis on employment for the poor, and shift workers from agriculture to non-agriculture activities, particularly services in rural areas. To achieve this goal, it is necessary to focus on selected growth engines and clusters as suggested earlier.

In conclusion, we can say that the task of generating employment is an urgent one and needs a range of concerted actions from the government, donors, banks, and the private sector and from civil society institutions.

Human Development: The Institutional Underpinnings

Promoting human development has been an important objective of government policy in Madhya Pradesh in the second half of the 1990s. The first Human Development Report (HDR) in 1995 provided a baseline of information on the status of human development on chosen indicators. The magnitude and spatial dimensions of the problem became much clearer than ever before. The report became the focus of discussion and debate across the state[1]. Given, for example, the financial investment that the government had been making in social sector areas like primary education, the question was sharply posed: why was the picture so poor? If, for example, every village had a school, then why were so many children out of school? Why was literacy so low? Going beyond the cynical, "Govt is inefficient" kind of general statement, the HDR was part of the thinking and reporting the government resorted to and raised for itself a whole new set of questions for the policy makers.

The Human Development Report was not just a report prepared in isolation. The state had put its focus on action on human development from 1993, with the Rajiv Gandhi Missions focussing on specific areas of immediate and focussed attention, increased attention to health, and education and taking the path of implementation through decentralisation and empowerment of people through making them vehicles of their own development. The report became a kind of a companion document to this process. The HDR was a part of the overall process of people centred development, part of a commitment to report also on the gaps and achievements in field of human development in the state, and to facilitate a debate on feasible and acceptable solutions.

Clearly, the then existing systems were either inappropriate or inadequate. The focus of policy therefore changed: in addition to allocating [more] finances, the government now began to look into *how* it was implementing its policies. Systems of administration were re-examined. For example, in selected areas of priority, the Rajiv Gandhi Missions were set up in the Chief Minister's Office with specific time bound goals but drawing on the existing governmental machinery. This was to enable the Government of Madhya Pradesh to work with a sharp focus.

The second Human Development Report of 1998 took this issue further. It looked into what had been done in the three years between the two reports[2]. And it faced the question of agency[3] squarely. *Who* was to implement these programmes? *How* were these policies to be implemented? And the answer was clear: it was through *the mechanism of decentralisation*. The system of local governance brought in by the 73rd and 74th constitutional amendments provided the *instrument* through which the social sector objectives were to be achieved[4]. Elections to local bodies had just been held, and these bodies were mobilised for these tasks by the GoMP. People were now not seen as "targets" to be reached but as partners in the process of achieving agreed upon goals. This was a basic shift in vision.

Each of these policy objectives has been carefully monitored, and independent evaluations speak of major changes—and dramatic improvements that have been made in the last five odd years. Thus *the process of decentralisation is central to the question of human development policies in Madhya Pradesh*. And this process itself has been evolving with experience. The various changes in law saw, in sequence, the move to Zilla Sarkar and then to Gram Swaraj.

The purpose here is to inquire into the institutional aspects of this process. What are the changes? What are their main features? Is there an evolutionary process of change underway, or are these the features of special circumstances that may not sustain? Is there something unique to Madhya Pradesh in this process? There are many issues here that need scrutiny.

The role that institutions have come to play in Madhya Pradesh must be seen in the light of the context in which they are operating on field. Institutions have increased multiplicity in the community – multiplicity in number of people involved

1. The Chief Minister has referred to this first report as a record of "our failures" in a speech to a Conference on Decentralisation held in Bhopal on the 25th of August, 2001.
2. In his Preface to the 1998 report, the Chief Minister wrote "since a state government with responsibilities for action cannot rest with analysis, we feel that such a Report must also report on action".
3. This point was made by Amartya Sen when he formally released the second human development of Madhya Pradesh in New Delhi.
4. What began as an instrumentality for implementing development programmes grew, over time, in to a belief in its value for deepening democracy.

more directly in their own work and in matters that affect them; multiplicity of institutions which sometimes conflict with each other and sometimes re-inforce each other; multiplicity in the forums and opportunities they provide for leadership; and for people to participate. Another crucial role of institutions has been that they help organise and channelise people's energies and creative and philanthropic urges. For development in the background of the 73rd and the 74th amendments, it needs to be undertaken through people's institutions, and the process and movement towards setting up these institutions has been taken in Madhya Pradesh.

This chapter is organised as follows. Section 2 discusses the idea of institutional change: what do we mean by this? Section 3 then moves on to an identification of elements of institutional change that may be seen as underlying the transformations that have taken place in Madhya Pradesh in the last five odd years. Section 4 then looks at a few of the programmes and institutional changes from the field, to see if the elements identified in Section 3 stand up to field reality. Section 5 is by way of conclusion.

1.1 What is Institutional Change?

It is important, when discussing institutional change, to distinguish between *organisations* and *institutions*. This chapter is not about organisations and organisational development. This point may need some elaboration.

An organisation is an agency, often registered under a law, with specific objectives. It could be a private company. It could be a government department. It could be a not for profit society. It is a legal "person", with resources of people, materials and finances. It has to be managed efficiently to achieve its objectives—be it profit or something else. The objective has to be clearly specified if the organisation is to achieve its goal. Thus, the Department of Education, to provide universal primary education to children below 14 years is an organisation in this sense — as is Bharat Bhawan, a premiere national level agency to work in the field of art and culture. Both have to deploy their resources efficiently to achieve their goals. Needless to say, the appropriate choice of instruments is critical to success.

An institution, on the other hand, is a code of behaviour or a set of behavioural norms, explicit or not, by which groups of people act to achieve their goals. It may or may not be linked to a formal organisation. Examples of institutions are, say, the joint family, the caste system or the Indian Administrative Service. Their roots lie in history and tradition. Each is clear about membership and responsibilities of membership. Each comes with an implicit code of behaviour. Yet, the caste system is not an organisation in the sense the term has been used in this chapter. The IAS is much more than any individual member of the service, or even the IAS Officers Association: it is an institution with its own norms and expected codes of conduct. The boundaries of an institution may not always be easy to identify. Where, for example, is the line between the IAS and the larger civil service of which it is an important part, to be drawn? Both context and judgement become important in a discussion of institutions and how they change over time.

Marriage is another social institution. As an institution, it is more than any one marriage between a couple—it defines the way in which people in society organise themselves on a religious, social or other basis. It defines the way in which children are brought up—and much more. There can be much we disagree with in such an institution—for example, in recent years, the traditional roles assigned to men and women in marriage are being redefined because of the injustice to women [according to modern norms] in traditional marriage. Within the marriage context, dowry in India could be seen as an undesirable example of an institution that is frowned upon in law—yet it exists. Mere law cannot "abolish" such an institution. Thus, even long lasting institutions may change over time—in unexpected ways too.

This does not mean there are no organisations whose objectives overlap institutional concerns. We are all familiar, for example, with caste associations[5]. But there may be traditions that make people behave in certain ways even when there are no formal organisations for the purpose. There are many people who behave in a fair and just manner even when there is no threat of legal action, or compulsion to honour a promise. It is this behaviour within certain parameters or norms that we refer to as an institution. Our concern will be with institutions in this sense of the term—of codes and norms of behaviour in specific contexts. The context here is human development. And changes in such norms, codes and contexts within this broad area then refer to institutional change.

Where human development is concerned, the first Human Development Report of MP was interpreted as showing that the governmental system was poor in delivering results even when government had "good" priorities. The Government of Madhya Pradesh had invested large amounts in schools and teachers, but in 1995 literacy was abysmal. The *institutional* base of policy implementation then was a bureaucratic one. The Department of Education worked in a certain way: a centralised, hierarchical decision-making and implementation process that has little links with the objects of the educational process and its critical elements: parents, teachers and children. As a result of this insight, the Government of Madhya Pradesh made *institutional* changes through the Rajiv Gandhi Prathmik

5. In many parts of India we still have the traditional jati panchayats that function because people accept their relevance and jurisdiction, even when it has no place in the legal structure. These jati panchayats interact with the legal modern bodies in unexpected ways—for example, in the phenomenon of members who are elected unopposed due to the decisions of such agencies. Too ignore the existence and influence of these bodies would be to impair the effectiveness of the new legal panchayats.

Siksha Mission outside of the Department of Education. It was part of a set of such missions.

The results of the first few years of experience were discussed in the second HDR of 1998 in the chapter "The Road Travelled". The achievement of objectives has changed dramatically as a result[6] of the institutional changes made by the Government of Madhya Pradesh. It is our intention in this chapter to explore the nature of institutional change behind this transformation.

1.2 Institutional Change in Madhya Pradesh

Perhaps with the benefit of hindsight, it could be said that institutional change in Madhya Pradesh began with clarity of objectives and instruments in the mid 1990s. The *objective* was to improve the components of human development—health, education and the like—in an equitable way in a specified period of time. And the *instrument* for achieving this goal was the combination of new initiatives and ideas in the capital and implementation through the new panchayats and peoples collectives at the local level. There was decentralisation with respect to what existed earlier, but it was a process guided from the top by civil servants acting under the directions of the political executive. The Rajiv Gandhi missions brought in new ideas and insights; the panchayats brought in the energies and experiences of the people. The panchayats and working with people's collectives brought to the fore people's demands—and the government responded to that demand, through programmes in panchayats, through using peoples collectives more and more in managing people focussed programmes. The two developed into a valuable partnership that is institutional in nature. *Both, not in themselves, but acting in concert, are crucial to Madhya Pradesh's subsequent experience*. This process is perhaps the key institutional change that was made.

The setting up of the Rajiv Gandhi Missions in the Chief Minister's Office provided direction and management of an order not available earlier. This also gave the missions the backing of the highest political authority. While the missions drew on expertise and resources within the government, their flexible structure made it possible to bring in resources and ideas from outside in way government departments could not. Further, missions were not permanent organisations like government departments: they could be shut down when the purpose for which they were set up was achieved—or failure became clear[7]. They were seen as *catalysts* of institutional change[8].

Panchayat Raj – State Government and its Response

In the early years of the new Panchayat Raj system, there were cases where Sarpanch or Janpad Adhyaksha or Zila Panchayat Adhyaksha belonging to reserved categories or a woman would be removed through a no confidence motion, and for the next six months till the bye elections, the caretaker would represent either the dominant communities or be their representative. To prevent this, state Government changed the Act and provided that the caretaker would also belong to the same category as the person voted out.

The cadre of Panchayat secretary drawn from erstwhile Village Level Workers were not found to be very responsive to the Panchayat members. The State Government then abolished this cadre, and allowed Gram Panchayat to choose their Panchayat Secretary. The Panchayat Secretary became dependent on the Gram Panchayat since they appointed him/ her and could remove them through voting in the panchayat. Government changed this and now the approval of the Gram Sabha is necessary both in appointing and in removing the Panchayat Secretary.

The State Government off late has introduced the Right to Recall to Gram sabha, which is a first anywhere in India. While there are reports that this provision is being used more with respect to elected representatives from weaker sections and women, this right by itself is almost revolutionary and a measure of a truer democracy. Already there are instances of this right being used, including the case of a City Mayor. This is a case unique to Madhya Pradesh.

The second is the implementation of the provisions of the 73rd and 74th amendments to the Indian Constitution, in the form of a series of state Acts[9] and elections based on them. This has been a case of making the path by walking—the system was one that constantly looked at experience, making adjustments as and when needed. A centralised, bureaucratic and hardly accountable state government system was being transformed into something else—the vision is of a locally managed system in which people participate, regulate and monitor how agreed upon things are done. In the first years of the new panchatai raj, the State Government dealt quite deftly with the problems that emerged vis-à-vis panchayats, problems of its leadership and problems from the field. The box on Panchayat Raj illustrates with some examples.

There are also critics of these changes and say that there have been too many changes too soon. The other response is

6. There are, understandably, debates about the nature of change, whether it is indeed an improvement, how lasting it is and so on. There are critics on this approach, but all agree that change has occurred.

7. For example, the Rajiv Gandhi Missions on Diarrhoea Control and reducing Iodine Deficiency have been closed since they achieved their targets, while the Mission on Sanitation was closed down, as it was unable to make any headway.

8. Physicists, in speaking of a phase transformation—say the change in the state of water from liquid to solid—point out that the presence of an impurity in the water is a necessary condition for the phase transformation to take place. If institutional change is like a phase transformation, then some such catalyst is essential—and here it was the Rajiv Gandhi Mission. The example should not be stretched to refer to it as an "impurity"!

9. Madhya Pradesh Panchayat Raj and Gram Swaraj Act, 1993; the Madhya Pradesh Zila Yojana Samiti Act, 1995 and the Rules; Orders and Circulars that have been passed to give effect to various provisions of the Act.

that changes are responses to field realities and direct democracy of this kind has been experienced for this first time. Therefore problems are to be expected, changes are necessary and are to be done with speed, since this kind of democracy has too direct a bearing on people not to be acted upon with speed.

The existing administration in the districts was one centred on the District Collector, with development programmes implemented by civil servants through the District Rural Development Agency (DRDA)[10]. The new system reduced the role of the collector, and brought in new organisations/ institutions like the Zilla Panchayat, Janpad Panchayat, Gram Panchayat, Zilla Sarkar—and others too. The point of difference was the bringing into being elected bodies[11], with reservations for women and lower castes, which began gradually to play a role in the implementation of schemes. Democratic processes were also set in motion at the time.

While this is a major democratic change, it is also true that these bodies began work with a number of handicaps. Many elected had little education, and little exposure to issues and alternatives available. Many, from the backward and scheduled castes, and in particular women, came into the system from a background in which they never have voiced their opinions. Few really knew what the law permitted them to do. In this background, support from above was essential—support to encourage them to face their responsibilities, to get trained in a range of skills—to voice their views and those of their constituents. This could not happen over night. The many evaluations that have shown that, women for example, were dummies for a male relative, fail to interpret this reality in context. Yes, they often are dummies. But today, it is they who are formally in office. Their male relatives have to work through them—and this in itself is a major change. What is important in this social context is to see if the women in these positions learn over time, to see if the support system helps them in their tasks, to see if society around them begins to change as a result.

For many programmes another approach was also adopted, that of peoples committees or groups managing these programmes. Many programmes also initiated and organised user groups/ management groups/ peoples groups to manage and implement programmes – the major examples of this are the Village Forest Committees under the Joint Forest Management programmes, Irrigation User Committees under a progressive legislation that brought irrigation users into irrigation management, etc. Even some of the Rajiv Gandhi Missions were implemented through distinct user groups such as the Watershed Committees. Some of these programmes created committees separate from panchayats, in which Panchayat leaders were sometimes involved in ex-officio or consultative capacities. The objective was not subverting the panchayats but a platform that would be effective for that particular programme, since these programmes involved a smaller stakeholder network and therefore representation to these committees needed a different group to be represented.

The practice of setting up separate committees for various programmes has had impacts on the institutional front, that have been both negative and positive. There is much merit in the strategy that the more peoples institutions there are, there will be greater participation, and contest in and of public space is good for democracy, good for transparency and nurtures leadership. However, what also happened is that these parallel structures often under mined the power and influence of panchayats, and even led to confusion amongst people. Who is ultimately responsible for development? Legally sanctioned and democratically elected panchayat leadership or not. Many of the committees were even getting funds directly that were far more than the funds handled by panchayats and in some cases their patronage opportunities and scope were more than available to the panchayats. Departments were keen to push their own committees, and the field contest between panchayats and these committees were often remote controlled fights between departments and the panchayats and its parent department.

However with the changes in Panchayat Act under the provisions of Gram Swaraj, and the provision of eight committees under Gram Sabha to oversee most development activities, dropping programme specific committees is being encouraged. The Department of Education has taken a lead in this.

Priorities were set on the basis of feedback and information directly from people. The Rajiv Gandhi Shiksha Mission launched a Lok Sampark Abhiyan, which involved school-teachers, local panchas, and the RG mission people—who were government servants. It was from this that the need for schools in *tolas* was recognised. The basic problem was re-defined as one of access to a school. Based on an analysis of the results, and a fresh appreciation of local needs and requirements, the Education Guarantee Scheme was launched. It re-defined teaching and schooling in a new context. Other initiatives were in the removal of iodine deficiency, and in mobilising local people in regenerating watersheds and improving the local base for providing a minimum level of livelihood. The institutional change here is the co-operative functioning of different bodies compared to unilateral decisions by the education department earlier—this is the behavioural norm that has changed.

10. Although the GOI insists upon the setting up of a DRDA distinct from the Zilla Panchayat, MP has merged the DRDA with the ZP. This was important in demonstrating to the newly elected representatives that they were indeed important in the policy implementation process.

11. This was a concrete implementation of Rajiv Gandhi's conclusion, after a series of consultations, that there could be no responsive administration without elected representation.

Having said this, it must also be recognised that the in process there were mistakes, but there was a willingness to learn from them, and that is important—and it is here that the vision and will of the political executive and the implementation of that vision by the bureaucracy becomes important. In Madhya Pradesh, the political executive had a long-term vision. Getting the civil servants to positively implement this vision has been critical in this process. The Chief Minister has provided the leadership that has given the senior civil servants the space to implement his vision. Officers were carefully selected for specific positions, and given stable tenures, long enough to think ahead and plan. This is not very common in India.

The organisations have to be modified to function in the new decentralised environment—this is a difficult task now slowly being tackled through administrative reforms, privatisation etc. Institutions seen as codes of behaviour have to be put in place, and nurtured till they get embedded in society. The change in modes of behaviour became evident first with the manner in which the Missions were implemented, and then extended into other departments and recently even into the more traditional departments and their concerns. Madhya Pradesh became in early 1990's to be the first state to have a privately built road, it built the largest network of optical fibre cabling in the state, and there has been politically supported action in downsizing government. Today the government is inviting the attention of the private industrial, and financial world towards its roads, infrastructure, and investment opportunities.

This process can be seen in terms of its major components. Decentralisation of administration, to be effective, must include decentralisation *of functions, functionaries and funds*. This Madhya Pradesh did as follows[12]. Management concepts have been creatively used—Rajiv Gandhi missions provided strategic direction; panchayats brought in people's demands and local control; the Gram Sampark Abhiyan brought in an innovative monitoring system; the District Planning Committees de-concentrated government and took decision making powers to the district—together the government as re-structured to become more responsive and deliver results in a way the earlier arrangement could not. This complex of changes taken together represents new ways of government behaviour, and is the institutional change that we are talking about.

1.3 Institutions in Madhya Pradesh

Let us take a quick look at the range of institutions that have been initiated by the Government and its action, in various initiatives. There is little data to actually find out the membership and level of involvement, since records do not specify duplicity of members, different members of same family/ household in different committees etc.

The major institution of course is the Panchayat Raj in the villages and the institutionalisation of the gram sabha. Under the Panchayat Raj setup are eight committees looking after issues of development, education, health, infrastructure, social justice and so on. Although reports suggest that most of these committees have not become active, they have created space and opportunities for people. The other institutions are in development programmes — watershed committees, in forestry the forest protection committees and village forest committees, committees to manage irrigation in many villages, and self help groups under many programmes.

The committees have provided undoubtedly a platform for people to organise, build common capacities, channelise and organise creative energies, and gave also helped in reducing decision making processes, and bringing conflict onto resolvable platforms. While the Panchayat Raj Institutions and peoples committees do have the issues of dominant power group control, yet the tools of reservations, the opportunities for the weaker and voiceless to participate has had a direct and effective impact on the element of equity, giving voice to poor and marginal. Committees by themselves cannot transform societies customs and relations, but they certainly are giving spaces, hitherto unavailable or available only after much effort and struggle. The membership and effective roles played across the state by women and members of backward and scheduled caste and tribe communities is a pointer towards this.

There is of course another side to the creation and strengthening of peoples' institutions, the opposition and confrontation with bureaucracies. These agencies are challenging institutions of power and disturbing status quo – both within people and between people and government is giving rise to tensions. The fairly aggressive nature with which the State Government is pushing people and their institutions into roles in development and into roles in direct democracy has to some extent not permitted such opposition and tension to obstruct the changes. Yet, much still needs to be done to orient both the bureaucracy and public representatives on the roles and powers of peoples institutions and to bring a more positive work environment.

1.3.1 Rajiv Gandhi Missions

The objective here is not to understand why these missions were undertaken, but to try and understand what were their institutional needs and why were such structures put together.

To talk of Rajiv Gandhi Missions we need to go back to 1993, when a new government was sworn in after a year of President's rule. At the time when the priorities were established and agenda set for the coming five years, it is inter-

12. It must be noted that this was not a one-off change but a gradual process, with some steps being retraced when experience warranted—and on this there can be much debate.

esting to note that institutional arrangements for achieving some of these goals were also looked into. The government has often stated that there were two choices in front of the state as far as its priorities and path of development were concerned. One drew from the ongoing changes loosely termed as liberalisation in India and the subsequent integration of national economy into global systems. The other path was human development, or investing in the people of Madhya Pradesh. The state and its leadership chose the second path. To invest in people, to make development people centred, the statement that best describes how the state government defines its strategy as looking to "people as the solution".

As a part of focussing on people, the State identified certain immediate priorities and brought them under attention through the Rajiv Gandhi Missions in the State. The priorities decided at that time were education for children, elimination of iodine deficiency, reduction in case fatality rate in diarrhoea, increasing productivity of land and improving peoples access to water through watershed development amongst others. For each of these a Mission was established, with a goal, a time period, but no additional funds or staff. The Missions were brought onto focus on specific problems, problems that needed an inter sector and inter department action. These Missions ensured this, and also gave policy and executive priority to their objectives. Funds were taken from existing funds and schemes and staff from existing departments were put together under the umbrella of specific Missions, both at the state and at district levels. These personnel then co-ordinated and ran the Missions, and Missions ensured pooling together of resources, people, government and civil society. The change was in how management was seen—an institutional change in the way the term is used here.

The strategy adopted by the Missions was to focus on a problem, build a stakeholder network for such a solution (e.g. involving salt traders in the iodine mission), involving all concerned persons, setting time and goals that were not interfered with, and the Missions had an end in mind. The Missions are to be closed down, as some have, when they either accomplish their goals or are unable to do so. The Missions in some manner circumnavigated the existing government departments, but involved them when picking up Mission staff and the schemes. The reasons for not keeping the Missions entirely within departments was the inter sectoral need of the Missions and their objectives. Also the mission structures helped avoid delays through procedural problems that departments may have had, and also ensured that Missions are seen as not just department efforts, but as the governments' priority. The Mission structures from the top to field agencies involved people at various levels thereby adding legitimacy and ownership to the programme.

What has distinguished Missions from the manner in which government has functioned in Madhya Pradesh other wise has been:

- In most cases a well defined and planned strategy is usually missing
- In most cases there is very little focus on the medium for implementing or carrying through an effort, something Missions were more focussed from their start.
- In case of government department works, the institutional arrangements are traditional, while Missions innovated and used both the government arrangements and as and when necessary other arrangements.
- From initiation to implementation, government acted as a catalyst and a vehicle as far as the Missions were concerned, whereas in government department actions the government/ agencies are all-in-all
- In departments there is the looming question of "Ownership", and "whose agenda" do departments carry forward. Ownership becomes departmental and agenda also get transformed into either departmental on individual issues. While there is an element of an individual or a group agenda associated with the Missions, since they are ultimately identified with the state political executive, yet there is a greater government ownership and it is the States agenda.

But there are issues on the Mission mode and we need to outline these. The idea of a Mission is that it is time bound and once a particular goal is achieved the Mission dissolves. Therefore it is imperative that while the strategy and institutional set up of a Mission is temporary its objectives and achievements are not, and how do we ensure that there is a continuity and permanence to what the Missions are doing? In case of short term goals like ensuring that we eliminate iodine deficiency through sale of iodised salt, closing the Missions has no problems. However, in the case of long-term programmes such as elementary education and watershed development, the question does arise what after the Mission? So how do we ensure that there is permanence to Missions and there is greater ownership of these within the state government.

The issue of permanence is valid to Missions with objectives that are longer term. The challenge is how much and to what extent the longer term Missions can now transfer themselves into the core departments and retain the efficiency and delivery effectiveness that they have achieved. Some of this has already happened. The Rajiv Gandhi Watershed Mission is within the Department of Rural Development and there is considerable department control and ownership of this Mission, and the Education Mission and School Education now has one common head. How much of the integration of Missions into departments will happen – will the departments gradually absorb and adapt to some of the good practices and manner of working that the Missions have successfully practised, the next few years will tell.

The mission strategy does bring out some facts — one is that it is often difficult to initiate strategic and institutional

changes within departments, and these take long periods to take effect, and even then after constant resistance by departments. Two, if immediate and urgent changes and focussed changes are required, governments established systems are not the best bet, and in action that requires inter-sector, and inter-department co-ordination and collaborative action, then a force or pull from outside any particular set up can ensure it.

1.3.2 Gram Sampark Abhiyan

From the year 1998, the Government of Madhya Pradesh started a process called Gram Sampark Abhiyan (GSA). It is a simple exercise, carried out over a week each year, where teams of government officials visit every village and habitation in Madhya Pradesh for a reality check. The teams are trained and provided with an elaborate questionnaire and a planned chart of activities to be conducted in the GSA.

The teams address Gram Sabha meetings, meet groups of people in all the habitations. They use a questionnaire to gather information on different aspects and register problems, observe and document infrastructure and condition of infrastructure (e.g. list all handpumps and observe how many are in working order), and implementation of key development schemes. The teams in the initial GSAs also noted down action points, prepared a type of demand list of villages, reviewed people's own problems related with government (e.g. people who have not received patta for land that was allotted to them etc.). The information so collected is put into questionnaires and in a village diary, the former are sent to janpad and district administration for documentation and necessary action and the latter remains in the gram panchayat.

Over the last couple of Gram Sampark Abhiyan, the objective of the programme and its content has changed. The process of generating a wish list and documenting it, as the first GSA landed up doing has been abandoned, and the programme has moved into a drive mode. A drive based on a theme is now one of the principle goals of the GSA, along with collecting information on functioning of government programmes – have people received the ration cards, is the nurse coming to the village etc. The self monitoring role of the abhiyan is one of its main purposes.

From last year the GSA has a specific theme, where the contact programmes are used to spread awareness on the theme, and collect specific information on the theme. A vibrant example of this was the Gram Sampark Abhiyan last year which focussed on water conservation in the backdrop of the severe drought that had hit the state. Simultaneously it also collected information on health from each village, to draw up district level health action plans. In both a great deal of local information was collected from which local demands were assessed and form the basis for action.

These contact programmes are high profile, and officials actually do visit habitations. Evidence of official teams visiting habitations and conducting Gram Sampark exercises are in abundance. Along with teams, government officials from districts and the state level (including senior officials such as Principal Secretaries to the State Government), members of the State cabinet and the Chief Minister travel and visit villages to participate in this programme and take a check on the process.

Institutionally, this serves the overseeing function from the top—the decisions taken by local bodies must be respected and implemented—and the GSA is an instrument for ensuring that the local bureaucracy does what it is supposed to. This is important in forcing accountability from civil servants. The entire exercise is bureaucratic, both because the exercise is on the functioning and feedback for the bureaucrats and their bosses – both political and executive, and it is also an exercise in taking government literally to the people. This also ensures to some extent accountability to the top of field officials, who in turn are enforcing implementation of people's decisions under the direction of the political executive of the State.

The impact of Gram Sampark Abhiyan had been on two fronts. One is the collection of information on quality of government services, problems associated with the interface of government and people. District, Janpad and departmental action often follows location of problems in habitations and solvable problems get priority attention. The information so gathered is an excellent tool for active and motivated official and there are enough examples from across the state where such officials have used it to identify problems, and take suitable action. The Government has placed all the data collected during the Gram Sampark Abhiyan by village onto a web site (www.mp.nic.in/gramsampark) and this is open for public access.

Government resources and capacities are not adequate to address all the problems and demands recorded during GSA. In the first Gram Sampark while generating demand, wish lists were generated in villages, and raised high level of expectations. The raised level of expectations cannot be met as stated above. This has generated a sense of disappointment and even some cynicism, and impacted people's perceptions of the Gram Sampark Abhiyan.

There is also a problem of consistency and the quality of data gathered. However, it is no doubt that field realities are evident and in some platform they get recorded.

The other impact has been when GSA moved into a 'drive mode'. The utility of Gram Sampark Abhiyan as a check on governance is pretty good. On the other hand the use of Gram Sampark Abhiyan to generate demand has rightly been dropped as a goal of these campaigns. With the third GSA, the campaign undertook a drive mode and also attempted to make it clear that this is a monitoring tool and not a demand generation tool.

The theme of one of the GSA was pani roko (stop water) under the slogan – *khet ka paani khet mein, gaaon ka paani gaaon mein* – and this kind of caught the imagination of

people. Termed the Pani Roko Abhiyan, government initiated this call across the state, urging people in their communes and habitats to do something to stop water from flowing away, stop, and store it wherever it falls and wherever it can be stored. The Gram Sampark Abhiyan took this message to every village and ever villager. From across the state a large number of initiatives were taken to build structures for water conservation, stopping water and conserving it where it falls, etc. Government made part contribution and people contributed the rest, both in cash and kind and in labour.

The GSA impact and the success of Pani Roko Abhiyan showed how such a peoples contact programme can be effectively used, and also shows the thinking that such contact programmes are taken seriously and there is a determination to use them for development. This year the campaign took on the theme of sanitation.

Gram Sampark Abhiyan is taken with some seriousness. The Gram Sampark Abhiyan have also become a useful tool to launch public messages followed by programmes on such messages.

If we look carefully at the Gram Sampark Abhiyan, what emerges is that one it was not a one time effort that normally such campaigns are about, and there has been an element of sustainability and follow up to them. This does not state that the all the action objectives of the campaign are successful. Second, that once such a tool is available, other efforts of the government then utilises it in effective manner. It is also part of similar other efforts of the Government of Madhya Pradesh where they have created systems and processes that run parallel to existing government efforts, but draw their legitimacy, their strength and their logistics from the government. GSA has institutionalised ground level monitoring and feedback systems, and an effective mechanism to push through drive based initiatives, especially those involving public partnership.

1.3.3 Panchayats

The institution of Panchayat Raj was brought into modern independent India's political set up over four decades ago. The real impetus came only after the Indian Parliament passed the famous 73rd and 74th Constitutional Amendments in 1993. These amendments signalled the fulfilment of the promise made in the Constituent Assembly through Article 40. These two amendments facilitated the way for creation of institutions that would strengthen the process of participative democracy.

The constitutional amendments contained mandatory and discretionary provisions for the state governments within which they were expected to frame their respective state laws for the local bodies. To enable the states to empower the Panchayats and the Urban local bodies with powers and functions a suggestive list was incorporated in the constitution as Schedule 11 and 12, respectively.

The state of Madhya Pradesh saw the amendments as an opportunity. It became the first state to legislate laws within the state to bring in the new panchayat system, it was also the first state to hold elections under the new system. The involvement of people in their own development, involvement of people in decision making and as participants in development through the institution of panchayats has in fact become a cornerstone of government policy and practise.

We will see later in this chapter that the structure of panchayats has also been evolving in the state and the change is not just in terms of administrative provision and rules, but substantial. From the time that the new Panchayat Raj system was established, there has been constant reflection on the system, and based on such an analysis two major changes were brought about. One is the District Government system, and the other the Gram Swaraj system. Both reflect clearly the States response to feedback, experience and reaction to the Panchayat Raj system in Madhya Pradesh.

1.3.4 The District Planning Committee (DPC) – Co-ordinating Institution

In pursuance of the Article 243 ZD of the Constitution the Madhya Pradesh Government enacted the Madhya Pradesh Zila Yojana Samiti Adhiniyam, 1995 that received the assent of the Governor on 19th May 1995. The Act was subsequently amended in 1999 to make the provisions comprehensive in nature and enable the establishment of Zila Sarkar (District Government) in the state.

The Zila Yojana Samiti Act provides for the constitution of the DPC in all the districts of the state. Further, the districts were categorised as comprising of 15, 20 or 25 members in the Committee. The membership to DPC has been provided to the elected members of the Panchayats, Municipalities, President Zila Panchayats, and the *Prabhari* Minister of the state government[13] and the District Collector. The *Prabhari* Minister has been designated as the Chairperson of the Committee.

As DPC, the Committee has the powers of planning, raising resources for financing their plans, and to monitor and evaluate the programmes and schemes that are implemented under the system of decentralised planning, including the money to be allocated by the MP/ MLA fund.

As District Government, the DPC is vested with considerable administrative, executive, financial and legislative powers. For example, the DPC have the powers to transfer class

13. The State Government has a Minister designated to specially look after the interests and development of each district. This minister of the State cabinet is called the *Prabhari Mantri*.

II, III and IV officers of the district that have not been transferred to the Panchayats. The departments' heads in the district are expected to take the permission of the Chairperson DPC for expenditures for which they used to take the permission of the state government previously. To ensure that there is no overlap with the Zila Panchayats, the orders of the departments specifically state that the DPC has the powers over the schemes that have not been transferred to the Panchayats.

The main aim of decentralising the powers at the district level is to reduce the delay in securing sanctions and to empower the people's representatives at the districts to take decision at the district level itself. The DPC being a body entrusted with comprehensive powers over all departments, the administrative decision-making can take place at the district level. As an enabling provision, the Collector has been made the Deputy Secretary in all the departments at the state (except Home), to fulfil the objective.

The system of District Government implemented through the mechanism of the District Planning Committee must be seen as a measure of administrative decentralisation, and not as a measure of decentralisation per se. The State Government has faced criticism for the District Government system, and critics maintain that it has provided for backdoor entry for elected MLAs and State Ministers and District bureaucrats to intervene in the rights and duties of panchayats and urban local bodies. Criticism also says that the District government has re-inforced the status of the District Collector. What is important to note here is that while many of these criticisms may be true and borne out of personal experiences across districts, what the District government have done is to decentralise administrative decisions from the centralised offices at Bhopal to districts. District Planning Committees under the District Government today have considerable powers to give technical and financial sanction to large projects hitherto undertaken by Departments at Bhopal. What DPCs have done is to ensure that decision come home, in the sense that stakeholders from the Districts are involved in decision making, rather than distant bureaucracies, and more stakeholders are involved

2 Institutions in Action - Examples from the Field

We will look at two examples of institutions and institutional evolution in the last eight years to observe what trends have been followed. These are the Panchayat Raj and Gram Swaraj set up in Madhya Pradesh, and the Rajiv Gandhi Missions. While the first is a concrete example of the manner in which government implements its commitments, in the second we will see how systems and processes have evolved.

2.1 Panchayats

This is the only section where we will tackle in detail the organisational set up in Madhya Pradesh. This is done for two reasons – one is that at the cutting edge level, panchayats are the mechanism for implementing governments action, and two the institutional and organisational strength and evolution of panchayats are significant.

The functional usefulness of Panchayat institutions lie in strengthening democracy at grass roots and in institutionalising a system that is based *on the willing assent of the people and not the coercive power of the state*. The very existence of these institutions provide an opportunity to the people to state *their own views about their needs and difficulties and (*that) *the correct solutions must be elicited and given the fullest weight in making the plans, in the execution of which they will be called upon to assist.*

Thus, Panchayats as institutions and Human Development as the goal of all planned development has the following three dimensions:

- as *decentralised institutions* that play an effective role in furthering the national goal of human development
- as *representative institutions* that are able to express the local concerns for human development and undertake consequent action
- as *enabling institutions* that create opportunities for the local human resource to practice their skills for self-governance

The ensuing paragraphs uses this three dimensional framework to assess the role played by the Government of Madhya Pradesh in developing and strengthening the Panchayat institutions in not only fulfilling their constitutional obligation, but also in playing a pro-active role in developing the potential of human resources in the state.

2.1.1 The Framework for Panchayats

The policy of the State Government towards Panchayat Raj institutions was given effect through the circular titled *Guiding Principles: Decentralisation of Powers, Responsibilities and Programmes to Panchayats* in October 1996. The circular propounded the vision of the state with respect to Panchayats in general as well as in reference to each level of Panchayat in particular (see Box on Guiding Principles)

The guiding principles were a major breakthrough for the state in transferring the work, the staff and the budgets to Panchayats. In pursuance of the principles, works of 23 departments and the budget under demand number 15, 80 and 82 of these departments was placed at the discretion of Panchayats institutions. Each of these departments have issued circulars and orders that effectively transferred their work, as well as issued orders that transferred some staff under the purview and control of Panchayats

Since 1994 there have been two rounds of elections for Panchayats in the state- 1994 and 2000. These two elections were held before the formation of Chhattisgarh state. After the bifurcation of the state, there are 22029 Gram Panchayats in the state. The details of number of Panchayats and their representatives is given in Table 1.

Guiding Principles of Devolution of Power to PRI

Role of state government will be that of a policy regulating agency

- Panchayats should be developed as institutions of self-governance and not merely as institutions of local governance
- Zila Panchayat should gradually evolve as district government and Block Panchayat should become its main administrative unit.
- The main responsibility of Panchayats is to plan for economic development and social justice. To enable Panchayats to fulfil this role the staff and the budget should be transferred to the Panchayats.
- At the district and sub-district level the work should be distributed between the State and the Panchayat sector. This division should avoid duplication of control and authority of state and Panchayat sector.
- Gram Panchayat be given functional control of those departments that needs to be managed at the local level
- Participation of Panchayats to be ensured while preparing welfare and development programmes
- State employees will work for the state government and the Panchayat employees will work for the Panchayat. There may be officials from the same department under the Panchayat and the State sector- their roles and responsibilities and co-ordination should be well defined
- Since the work of the departments has to be transferred to the Panchayats all the budget with the exception of establishment cost should be transferred to Panchayats
- The power of the departments should be given to an institution, and not to any particular official.
- The process of use of powers should be based on rules of procedure in the same manner as the state government. For this working rules and procedures should be prepared for Panchayats that will define the roles and responsibilities of the committees and the officials are empowered to take decisions.
- In no condition the Panchayats will be given the adhoc control of departments. Either there will be no control or there will be total control of Panchayats.

There are 3,44,424 Panchayat representatives in the state, which includes 22,387 members as leaders of their respective Panchayat bodies. Among these 61.4 per cent of the representatives belonged to the Scheduled Castes (15.6 per cent), Scheduled Tribe (27.6 per cent) and Other Backward Class (18.1 per cent) categories. Of the total representatives 33.8 per cent are women.

In pursuance of the mandatory provisions of the 73rd Constitutional Amendment, the State Government had also constituted the First and the Second State Finance Commission to decide upon the principle of devolution of funds to the Panchayats. The Second Finance Commissions has also submitted to report.

The State Government that is responsible to conduct elections for Panchayats has also constituted the State Election Commission. In past the Election Commission has conducted two general elections and elections for seats and posts as and when they become vacant.

The section 129 of the Madhya Pradesh Panchayat Raj and Gram Swaraj Act, 1993 provides for the constitution of separate Audit Organisation for the conduct of audit of Panchayats. However, this organisation has not been formed in the state and the functionaries of the Department of Panchayat and Social Welfare are currently carrying out the audit.

2.1.2 Legal Framework

The legal framework for the Panchayat institutions is defined by the Madhya Pradesh Panchayat Raj and Gram Swaraj Act, 1993; the Madhya Pradesh Zila Yojana Samiti Act, 1995 and the Rules; Orders and Circulars that have been passed to give effect to various provisions of the Act. The Act provides for a system of three-tier Panchayat institutions, Zila Panchayat at the district, Janpad Panchayat at the block, and Gram Panchayat at village level (population of 1000).

The Act is universal in its application as it applies to the revenue and forests villages in the state. There are certain differences in the way the Act is applicable in the Schedule and non-Schedule areas of the state (see Box on Special Provision).

The Constitution has laid down special provisions for the welfare of the members of the Scheduled Tribes in the country. Areas with concentration of tribal population have been

Table 1: Number of Panchayats and Representatives in Madhya Pradesh

Panchayat	1994		2000		From 1 Nov 2000	
	Member	President	Member	President	Member	President
Zila	946	45	1289	61	734	45
Janpad	9097	459	9105	459	6456	313
Gram	443429	30922	443804	31138	314847	22029

Source : Department of Panchayat Raj, Government of Madhya Pradesh

specially designated as (a) Tribal Areas in the North-Eastern States of Assam, Meghalaya, Tripura and Mizoram; and as (b) Scheduled areas in other states of the country. The former is governed by the Sixth Schedule and the latter by the Fifth Schedule of the Constitution.

The MP Panchayat Raj and Gram Swaraj Act, 1993 has been suitably modified to incorporate the provisions of the Extension Act of the 73rd Amendment Act to provide for the Panchayats in the Scheduled Areas (vide amendment MP 43 of 1997 [5-12-97]). There are 4 districts in the state that are wholly categorised as Scheduled Area districts and 12 districts as partially Scheduled Area districts. The District, Block and Village Panchayats in each of these categories are given in Table 2.

There have been 12 amendments to the state Act since its enforcement. These amendments have been substantive in nature, the most notable being the amendments on 5th December 1997 and the amendment on 22nd January 2001. The former created the distinction between the Scheduled and non-Scheduled Areas in the State and the latter affected the change in the name of the Act to Madhya Pradesh Panchayat Raj and Gram Swaraj Adhiniyam, 1993. It also extended the provisions of the Act to Gram Sabhas in the State. Every Gram Sabha in the state has been recognised as a legal entity and the system of working through the committees have been extended to the all the Villages.

2.1.3 Gram Swaraj

The existing panchayat system was constantly criticised for two major weaknesses or problems. One was the growing and almost over bearing influence of Sarpanch over the panchayat, and the second was that the Gram Sabha was not able to establish its role, character and importance and there was dwindling interest in Gram Sabhas and therefore declining attendance in its meetings. The Gram Sabha actually had considerable powers under the existing provisions of decisions and planning, but most of this has become redundant in practise.

Recognising both these problems, the idea of Gram Swaraj was evolved, inspired by the ideals and thinking of Mahatma Gandhi. Empowering Gram Sabhas further and granting them a greater role, the idea is to tone down the unnecessary influence of the Sarpanch and to give a comprehensive role to Gram Sabha so that people find it worthwhile to attend the meetings and thereby participate directly in their concerns – a change towards direct democracy.

The Madhya Pradesh Government amended the Madhya Pradesh Panchayat Raj Act to give effect to Gram Swaraj in the state. The amendment has brought in substantive changes in the Act and in the nature of Panchayat institutions, especially at the village level. The main features of the amendment are given in the box on Gram Sabha.

Table 2

Status of District	District	Block
Districts that are wholly declared as Scheduled Areas	4	35
Districts that are partially declared as a Scheduled Area	12	40
- Non Scheduled Blocks		63
Districts with no Schedule Area	29	175
Total	45	313

Special Provision for the extension of Panchayat Raj in fifth Scheduled areas

- Separate Gram Sabha for each village in Schedule Areas. Moreover, separate Gram Sabhas can be constituted for a hamlet or a group of hamlets
- The meeting of the Gram Sabha shall be presided over by a member of the Gram Sabha belonging to the Schedule Tribe only. Any elected member of the Panchayat, Sarpanch and Up-Sarpanch cannot preside over the meeting of the Gram Sabha.
- Gram Sabhas have the power to safeguard and preserve the tradition and the customs of the people, their cultural identity, community resources and the customary mode of dispute resolution.
- Gram Sabhas can exercise control over institutions and functionaries in all social sectors transferred to the Gram Panchayat
- Gram Sabha has the power to manage natural resources including land, water and forest within the area of the village in accordance with its tradition and in harmony with the provision of constitution and with due regard to the spirit of other relevant laws for the time being in force.
- Gram Sabha can give advice to Gram Panchayat in the regulation and use of minor water bodies
- Gram Sabha can manage village markets and fairs including cattle-fair, by what ever name called, through the Gram Panchayat
- Gram Sabha has the power to control local plans, resources and expenditure for such plans including tribal sub-plans.

2.1.4 Panchayats as Decentralised Institutions

The role of Panchayats, as institutions that can play an effective role in furthering the goals of human development, is dependent on the powers and functions that have been transferred to these institutions and the enabling provisions that accompany these powers. In this context it will be important to assess the extent and the degree to which the State Government has de-centralised its powers and functions at the district and sub-district levels.

Administrative decentralisation: The state government in pursuance of its policy of strengthening Panchayats as institutions of self-governance has demarcated the work of departments at

Gram Sabha - New Role under the Gram Swaraj Initiative

- The Gram Sabha of every revenue and forest villages in the state has been recognised as a legal entity. That is, the Gram Sabha can sue and be sued, and it will have its own seal and signature.
- The Gram Sabha itself will convene the meeting of Gram Sabha. One meeting of the Gram Sabha every month is mandatory.
- The condition for the fulfilment of the quorum has been made mandatory for the meeting of the Gram Sabha. The quorum for the Gram Sabha is 20 per cent of the membership of the Gram Sabha. Of the members present one-third should be women.
- Decisions in the Gram Sabha will be unanimous. In case there is dispute attempts will be made to arrive at a general consensus, and if the matter is still nor resolved the majority opinion will prevail.
- There is provision for appeal on the decision taken by the Gram Sabha.
- Every Gram Sabha will constitute seven Standing Committees, namely, Agriculture, Education, Health, Infrastructure Development, Community Resources, Village Protection, and Social Justice. The Chairpersons of each of these committees along with the Sarpanch and the Up-Sarpanch of the Gram Panchayat will constitute the Village Development Committee.
- The amendment if flexible enough to provide space to the Gram Sabha to constitute ad hoc committees for specific work. These committees could be made and dismantled by the Gram Sabha.
- Every Gram Sabha will have a Village Fund, comprising of the Cash (bank) fund; the Grain fund; the Labour fund; and the Material Fund. The purpose to which this fund will be put to use will be decided by the Village Development Committee.
- Gram Sabha has been entrusted with the responsibility of the village; of the work that is to be performed by the Gram Panchayat (eg express opinion on the budget of the Panchayat, and its annual audit etc); control over natural resources and control over institutions and their functionaries. With respect to responsibility of the village the Gram Sabha will have lay down the principles for implementation of development schemes, identify families below poverty line, and controlling the implementation and monitoring of beneficiary oriented schemes. The Gram Sabha also has the responsibility of ensuring equality of benefits in the implementation of various schemes and programmes.
- Gram Sabha has three sources of income- donations, receipts from Panchayat Nidhi, and taxation. As a legal entity, the Gram Sabha has the option of imposing taxation Profession tax and Public Property. At the same time it has to levy and collect building tax, professional tax, tax on services provided to the village.
- Every Gram Sabha will ensure that there is annual audit of its accounts.

the district level to the offices of the Panchayat sector and offices of the State sector.

The powers and functions of many departments have been demarcated in to the office of the Panchayat and the office of the State sector, and transferred to the Panchayats at the district level. The offices of Panchayat sector have been placed under the direct control of Zila Panchayats. The budget, staff and other functional powers have also been transferred to the Zila Panchayats.

This transfer of staff has created confusion amongst field officials and affected direct line hierarchies in government. Who does the field staff report to, how do departments handle staff implementing their programmes but technically with the zila parishad now? It is a departmental turf issue, and even for employees, the duality of reporting and identity has its own set of problems.

Financial decentralisation: The state government has taken pioneering steps to provide increased finances to the Panchayat institutions through budgetary decentralisation and other steps taken to expand the resource base of Panchayats. The former includes transferring the money voted under demand number 15, 80 and 82 (see Box) to Panchayats. The latter has been ensured by accepting the recommendations of the Finance Commission where 2.91 per cent of the total revenue (tax and non-tax) of the state has been earmarked for Gram Panchayats. In addition, the state government is also sharing revenue generated through stamp duty, receipts collected through Professional tax, cess on Education, and Land revenue with Panchayat institutions. An important step for increasing the control of Panchayats on the usage of funds in the district has been the merger of the DRDA with Zila Panchayat. As a result the money allocated from the central government for rural development under centrally sponsored schemes is now disbursed on the recommendations of the Zila Panchayat.

The extent and nature of powers and functions that have been delegated to Panchayat institutions in Madhya Pradesh makes it clear that the State Government does not perceive Panchayats merely as extended arms of the government or as institutions that will increase the outreach of its services. On

Demand number 15: Financial assistance to Panchayat institutions under Special component plan for Scheduled Caste
Demand number 80: Financial assistance to Panchayat institutions
Demand number 82: Financial assistance to Panchayats under tribal sub-plan

the contrary, the Panchayats have been perceived as, and developed as, decision-making bodies within the overall control and management of the village communities. It is this character of Panchayats in the state that has taken them beyond the scope of decentralised structures towards the framework of institutions that have a critical role in Human Development.

2.1.5 As Representative Institutions

The degree of autonomy enjoyed by the communities, which is reflected in the opportunities that exist for the communities to take decisions and in the decision-making processes that allows the community to exercise their choices is a crucial indicator in the status of development that people and communities enjoy. This gives democracy an intrinsic value that guides the functioning of all institutions and makes participative democracy a cherished goal for the institutions of self-governance. It is within the dynamic the framework of decreasing dependency of communities that Panchayat institutions find a reason for their existence and define their critical role in Human Development.

Effective governance is based on the nearness of the governing institution to the communities. In Madhya Pradesh, the smallest unit of representation is defined by a ward that is constituted over a population of 100 persons. The Gram Panchayat, that forms the institution, is constituted over a population of 1000 persons. With the recognition of Gram Sabha as a body corporate, comprising of persons entitled to vote within its territory, has effectively located the institutions for decision-making in the village itself. Further, to enable the Gram Sabha to function as a body corporate the state government has provided for the constitution of eight standing committees of the Gram Sabha that has further widened the institutional base of the Gram Sabha in the community and has created opportunity for the community to take specific decisions.

The major role assigned to Panchayat institutions, in Madhya Pradesh, is planning for economic development and social justice. Every Gram Sabha and Gram Panchayat is expected to prepare plan for the development of the village that will be consolidated at the Janpad level and later on at the Zila Panchayat level. The process of planning is expected to involve all sections of the community through the Standing Committees at the Gram Sabha and the Gram Panchayat level. The village community constitutes the former and the Panchayat representatives (Sarpanch and Panch) comprise the latter. These committees represent multiple institutional spaces within the framework of Panchayats to address different issues and concerns.

Thus, the creation of multiple institutional platforms equipped with substantive powers are indicative of the process where the communities do not have to depend on institutions that are far away and appear as inaccessible monolithic organs of the state. With governance becoming everybody's concern the responsibility for achieving the development targets shift towards the community and its institutions. For example, goals of universal immunisation or universal literacy or IMR of 40 are as much the targets for local institutions as they are of the state. In fact the role of the state changes from a mere provider of services in a supply driven mode to that of an agency that facilitates the communities to achieve their respective targets. And this very fact of changing roles and responsibilities poses the biggest challenge to the state government in Madhya Pradesh.

Emergence of panchayats and urban local bodies empowered institutions for governance imply a change in the roles and functions of existing institutions, namely the administrative departments, who have to change from dispensers of administrative largesse to reluctant partners with communities. Delegation of powers to Panchayats implies an inevitable reorientation and redefinition of the role of the administrative departments. It also implies development of a mind-set among the officials that goes beyond considering Panchayats as a necessary irritant or even evil to be tolerated, towards an approach that is positive and pro-active towards Panchayats as an institution and towards Panchayat representatives as people's representatives.

2.1.6 As enabling institutions

The concept of Panchayat institutions is rooted in the socio-political history of the country, yet their recognition as formal institutions of governance and the development role that is assigned to them requires time before it can be internalised by the community and the institution itself. For example, delegation of powers does not *ipso facto* imply that people will start using it, or it will be used in the manner and for the purpose for which it has been designed. Thus, the role of state as the provider of information and as the regulator of institutional functioning assumes greater importance. That is, the challenge before the state is to ensure that Panchayats function as institutions that allow people to practice their skills of self-governance. The challenges are posed by the following structural and systemic factors:

Response of established power centres: Panchayat institutions equipped with popular support and powers and functions of the state have emerged as new power centres in the community. The established power centres in the community have been challenged and have been forced to respond to Panchayats. The preferred reaction of existing power structures has been to co-opt these institutions within their fold so as to retain their power base in the community. However, the larger community has woken up to this process of co-option and has publicly challenged their dominance. In such a situation the state cannot remain neutral and has not only to provide protection to the community, but has to demonstratively establish the dominance of Panchayats as institutions of self-expression for the people and individuals.

Centralisation within decentralisation: Within their own institutional framework the there are possibilities that decision-making is centralised in a post or in few hands. The State Government identified the dominance of Sarpanch as the sole decision-making person in the Gram Panchayats that led to the enactment of the Gram Swaraj within the Panchayat framework. The state government needs to be vigilant to the processes of decision-making at all levels in the Panchayats so that neither individuals nor any constituent of the institution gain dominating power and start affecting the decisions in the institutions.

Institutional negotiations: Panchayat as an institution are in a position where they need to negotiate with line departments and interact with government officials on a daily basis. The sources of information and the skills for administration are however, in the hands of the latter and they are not willing to share these with Panchayat representatives. As a result the Panchayats find themselves handicapped during the process of institutional negotiations and often complain about their passive role in the process of overall decision-making. The responsibility for ensuring a level playing field for the Panchayats is that of the state government that will have to review its strategy for flow of information to the Panchayats and to the community.

Financial decentralisation: The debate in Panchayats so far has focussed on how much of their own resources have the State Government shared with Panchayats. The quantum of resources transferred to Panchayats has become the index for effective decentralisation. However, the option of strengthening Panchayats as institutions that can generate their own resources has not entered the arena of public debate, nor Panchayats have been assessed as institutions that can become financially self-sufficient. The challenge before the state government is to find alternative ways in which the Panchayats can have adequate resources for their own plans.

Accountability mechanisms: The responsibility for effective functioning of Panchayats is as much of the institutions itself as it is that of the departments at the district and the sub-district level. This necessitates monitoring and accountability systems within the administrative and Panchayat institutions. The main focus for the former is to assess the quality of support provided to Panchayats where as for the latter it is necessary that its functioning becomes transparent and accountable to the community. On both counts the State Government has to assume the responsibility of instituting accountability mechanisms that are able to monitor the functioning of both the departments and the Panchayats in terms of their respective assigned roles as well as the activities undertaken that complements each other's role.

2.1.7 Gram Swaraj and Panchayats

Gram Sabhas have been at the core of Panchayat Raj Institutions, and the Acts as well as the spirit of Panchayat Raj make Gram Sabha the supreme body for all decisions. Following the new Panchayat Raj system in the state, the Government of Madhya Pradesh to ensure regular Gram Sabhas ordained that there will be four compulsory Gram Sabha meetings every year – one each on 26th January, 14th April, 15th August, and 2nd October. While earlier the Gram Sabha meetings were to be held on these dates specifically, this was later modified to over a week around these dates. Most observations and studies on Gram Sabha brought out the following –

- While Gram Sabha meetings were held on the dates, attendance was very poor. Except for times when beneficiaries in programmes were to be decided usually attendance would range from a dozen to two dozen persons.
- Usually Gram Sabha members close to or supporters of the sarpanch would dominate such meetings thereby denying these bodies the characteristics of a democratic body.
- Many people observed that the issues debated or discussed or dwelled upon in Gram Sabha were mundane matters such as budgets etc., and were of little if any utility to people. Hence, attending these meetings was not of much use. Further, domination by group or groups would dissuade others.
- Sarpanch and his supporters on their own would often use existing rules and provisions of quorum to their advantage and use such meetings to ratify decisions that suited them.

The problems, both of low attendance and dominance by some were seen by the State Government as a crucial bottleneck in making Panchayat Raj system even more democratic and effective. There was also growing concern over an expanded and over powering role of the Sarpanch. Both these prompted the State Government to take measures to ensure a greater and more effective role for Gram sabha. The changes under the Gram Swaraj initiative have tried to provide a much greater and critical role to Gram Sabha, taking them down to the level of every habitation. From the 26th of January 2001, amendments to the Act in Madhya Pradesh have heralded this new system in the state.

Gram Sabha – an empowered body: The enactment of the concept of Gram Swaraj has brought about a qualitative change in the character and nature of Gram Sabha in the state. The Gram Sabhas are now a body corporate with their own seal and succession. In addition, they have been entrusted with the powers and functions to:

- exercise control over government functionaries
- undertake planning
- identify/ approve beneficiaries under different schemes
- provide approval to proposals before they can be implanted in the village

- control and manage various programmes of government.
- Co-operate with other agencies for the implementation of their activities
- undertake the review, monitoring, inspection and supervision of government programmes in the village
- maintain records and accounts at the village level
- maintain structures created under various schemes
- perform a facilitative and promotional role towards the development of their village

The wide ranging powers given to Gram Sabha and its eight committees has suddenly changed the equation in which panchayats and the elected representatives were working. There has been a reduction in the role of the Sarpanch, greater involvement of people in decisions, more need for regular and attended Gram Sabha meetings. With hardly a year gone by under the new enactment it is very early to say anything with regard to what is going to happen. However it is important to note some of the issues that emerge with the Gram Swaraj led changes in the state panchayat system.

One is that under the previous Panchayat Raj system, while there were many Sarpanch who dominated and controlled gram panchayats, it also gave power and built leadership amongst weaker sections and women. The last six years are filled with numerous examples of such empowerment. The reduction in the role of the Sarpanch has taken away this one opportunity that men and women of weaker sections and women in general got. Under the Gram Swaraj initiative, what roles will the Sarpanch play is yet unclear? The situation, role and context of the Panch is even more uncertain. Another point is that while earlier the Gram Sabha were called four times a year but often not attended well, yet there was the Sarpanch who had to call these meetings and ensure that they are at least held. With the Gram Sabha directly exercising the powers hitherto with Sarpanch and Gram Panchayat, who will ensure that these meetings are held and held properly.

The eight Gram sabha committees are new, and need great amount of work upon them to make them active, aware of their roles and responsibilities. There is evidence from field that wherever work concerning committees came, especially in the form of funds, these committees became active, while other committees in the same village are dormant. The evidence is clear; the State Government will have to ensure that powers, responsibilities and funds are made available to these committees, if they are to become effective and active.

2.2 Missions – from 1993 to 2001

Rather than tracing the history and changes within the Missions, we will try and see how the Missions have evolved over the last eight years. We will also look at the example of the new Rajiv Gandhi Swastha Jeevan Sewa Guarantee Yojana and how it has come about.

The Missions initially developed a tendency of building parallel implementation structures to panchayats, although panchayats were involved in ex-officio capacities. Most Missions and many departments developed parallel mechanisms – Joint Forest Management Committees, Watershed Development Committees etc. These parallel structures have been a matter of debate as discussed earlier. While parallel committees subvert the authority of panchayats, parallel structures also increase people's direct participation in development.

Over the last eight years the experience of developing parallel structures and then integrating them with panchayats has also produced positive changes. To integrate these, and to ensure that there is a co-ordination between panchayats, the Gram Swaraj initiatives have provided an ideal platform. Under the Gram Swaraj changes, every village will now have separate committees to oversee different development operations[14], all under the umbrella of gram panchayats. These committees provide a valid platform for integrating programme user groups with such committees. The department of education has already taken a decision to dissolve all committees under it and merge them with the gram panchayat education committee.

Another change of significance has been rationalisation of Missions. Missions that have won the test of time by being sustainable, effective or which had long term goals continue. Those that either achieved success (such as the Missions for Elimination of Iodine Deficiency and Mission for Reduction in Diarrhoea Deaths), or those that somehow could not take off or find a direction (such as the Mission on Sanitation or the Mission on Advanced Technology), have been closed down. The ones with long term goals such as those for education and watershed development have remained state wide Missions. This has been an evolution in the Mission system, and reflects a strategic thinking and manner of working, even in a high profile, and politically sensitive group of programmes. The new Missions being added to the current list are those with longer-term goals and agenda, such as the Mission on Community Health. It is in the light of this that we take a look at the new health scheme launched in the state a few months ago.

Rajiv Gandhi Swastha Jeevan Sewa Gaurantee Yojana

The initial Missions were specific goal focussed, and some targeted larger objectives, such as universalising primary education. The accumulated experience of the Missions, specially the experience of the Education Guarantee Scheme was brought into the planning and design of the latest State

14. In all eight committees.

Mission on health. The details of the Mission are not important to us, what is, is the manner in which this Mission was planned and its elements brought together.

In its focus on human development, the area of health was still the most disturbing with few achievements. In response to this, the State Government began an exercise in thinking about how and in what manner can a sustained and comprehensive health Mission be launched. In the design of this Mission many of the lessons of previous Missions was also utilised.

The Gram Sampark Abhiyan held from 3rd to 7th February 2001 across the state collected information on the current status of health provision, providers, pockets of diseases, key determinants of health, etc. This information has been put together in the form of a Village Register Plan, on the basis of which a Village level Health Plan will be formulated. The specific needs of each village will them become elements to which the health mission will be expected to respond—much as the EGS was framed. The Village level Health Plan, in turn are being aggregated at the district level to form District level Health Plans. These Plans will not only feed into the health guarantee scheme but also feed into the overall health programmes. Demand and supply are matched this way.

The Health Guarantee Mission has evolved in the following aspects – the Mission is housed in the Department of Health, with Commissioner Health the Mission Director. Another very important component of the scheme is the role of Gram Sabha. The Gram Sabha members of every village are to select amongst themselves the Health Committee of stakeholders or the Gram Swasthya Samiti, under the aegis of the Gram Swaraj related changes in the Panchayats Acts. These committees have at least 12 members out of whom fifty percent belong to Scheduled Castes, Scheduled Tribes and Other Backward Classes (2/3 SC/ST and 1/3 OBCs) and thirty three percent women members. The members from amongst themselves will elect the president of the committee for a term of one year. Preferably the local village Dai, or the resident Jan Swasthya Rakshak will be nominated as a secretary of its Gram Swasthya Samiti. This committee will also be responsible for maintaining the Village Health Registers and formulating the Village level Health Plan. All the personnel and provisions under the Health Guarantee scheme will be under the authority of the Gram Swasthya Samitis.

The evolution of the Mission structure in these key organisational arrangements – one that department is directly involved, and two that panchayats play a central role – are signals of evolution of the Mission approach, and that Missions are now getting grounded within the state systems.

3. By Way of Conclusion

Students of decentralisation will undoubtedly point out that the Madhya Pradesh experiment is one of decentralisation from above in which senior civil servants have played an important role in guiding the process in a particular way. The major import of this point is that this has not been something that the people at local levels have done; that they would have done things differently; and that therefore there is something both undemocratic and undesirable in what has happened in Madhya Pradesh in this time.

Madhya Pradesh, in the centre of the Indian mainland, was traditionally a largely feudal state, with many districts in the north, north central and western borders under feudal principalities, and other districts under kulak peasantry. In the last century or so, and even after India gained Independence, the state has not witnessed any people's or social movements or significance. This is not to state that peoples movements in Madhya Pradesh are not of significance. But what we refer to here are large scale people's or social movements. Not only has there been an absence of changes in the social and political fabric of the state from people's efforts, the state has had a severely under developed and backward infrastructure, poor education and health set up and poor industrial and land base.

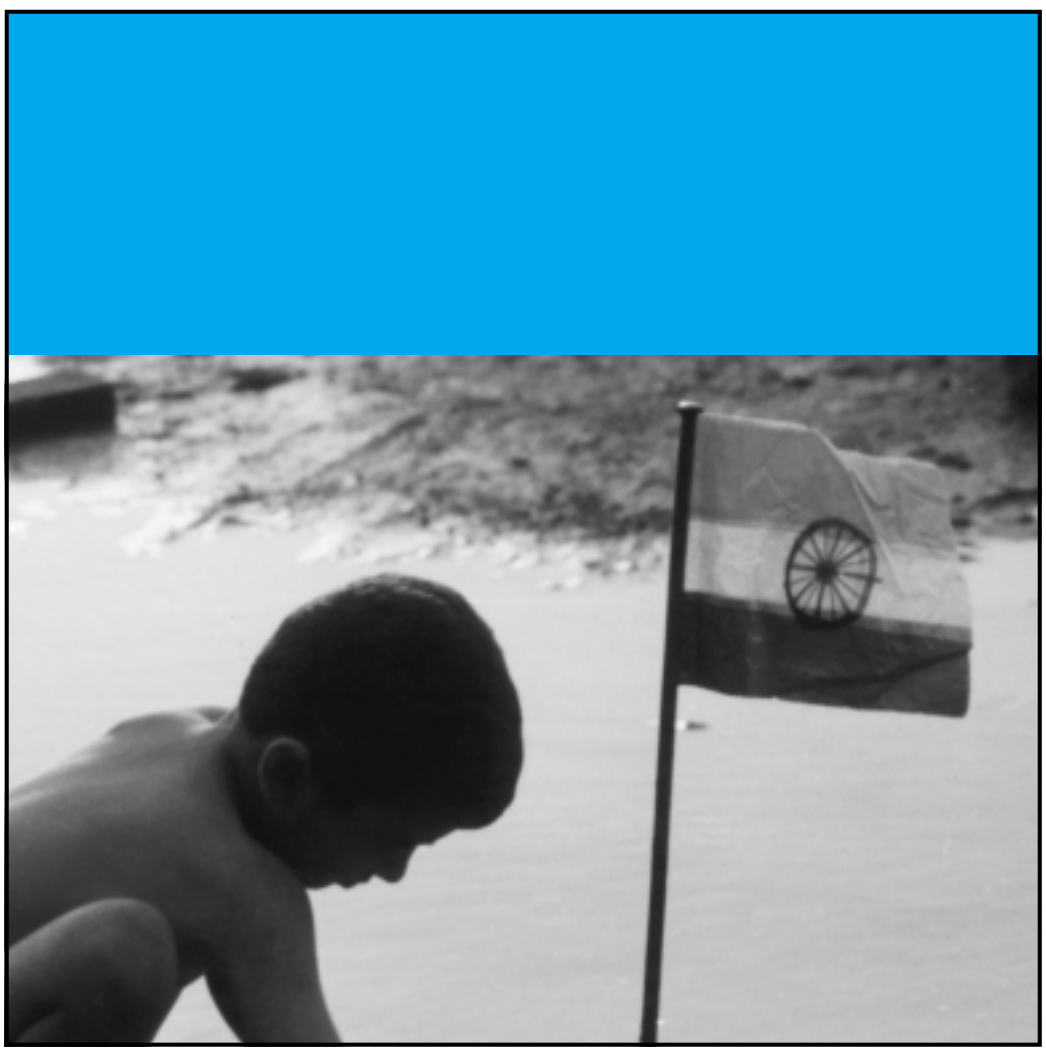
It is from this starting point that we need to see Madhya Pradesh – feudal, backward, a conglomeration of different regions. There have been no peoples movement in human development as was the case in Kerala, or co-operative movements of the sale witnessed in Gujarat and Madhya Pradesh, no rationalist movement as in Tamil Nadu. Then how does change begin?

Yes, change has been from above? But it is also a vision of the Chief Minister of the state. What is important is what direction is this change taking? This is what is important, and yes, it also has a democratic base as a politically elected executive spearheads it, sets the priorities and provides support and backing to it.

That decentralisation has been a process guided from above is a basic truth. India has a system of governance in which the state governments have the responsibility to set up and empower local bodies as they deem fit. The constitutional amendment has deepened the federal principle that form part of the basic structure of the constitution—from a union of states with state and union government, India is moving towards a union of local governments and state governments. From a two tier structure that has worked from 1952 to 1993, we are now moving, with the initiative coming from the states, to a three tier structure that, in addition to union and state governments, has three levels of panchayats and in urban areas, municipalities or nagar palikas. This is a fundamental change that will in time bring about major changes in many of the organisations and institutions that we have been familiar with. This report looks at one small slice of time in just one state—the big picture will take time to emerge—in this evolving scenario. Different states have done this differently. That is a basic truth. But does it nullify ground experience?

In Madhya Pradesh, given the long feudal history—the term perhaps is used loosely here—a process that did not have support at the highest levels of the state government would have been captured by local vested interests. This could still have happened in many parts of Madhya Pradesh—time will tell. Given the low capabilities of elected representatives at local levels, they would have been unable without support to achieve any of their goals. The question therefore is this: has the higher level system functioned in an equitable and democratic way? Has it empowered local people to meet their goals? Has it responded to their needs when they were, however hesitatingly, expressed? Has it given space for dissent, for those who agreed on the goals but differed on the means being used? Have the first crucial step in an ongoing process of transformation been supportive of long term change? There can be differing answers based on experience of different regions of the state, based on differing political philosophies and different readings of historical experience. These differences have to be openly discussed and resolved.

If the answers to some of these questions are "Yes", then the overall process of institutional change in MP has been in the right direction. That is the thrust of this chapter. It can only end on a note of caution: the [limited] success of the past few years is no guarantee for the future. Care and caution must continue to the watchwords as the process proceeds. Eternal vigilance is, after all, the price of democracy.



Widening Inter-Regional Disparities in India

Right from the beginning of planned development in India, the issue of regional egalitarianism has occupied centre-stage. The theme of balanced regional development has been integral to all the Five-Year Plans framed so far. As far back as the Second Plan, the question was addressed as follows: "In any comprehensive plan of development, it is axiomatic that the special needs of the less developed areas should receive due attention. The pattern of investment must be so devised as to lead to balanced regional development. The problem is particularly difficult in the early stages when the total resources available are very inadequate in relation to needs. But, more and more, as development proceeds and large resources become available for investment, the stress of developmental programmes should be on extending the benefit of investments to underdeveloped regions. Only thus can a diversified economy be built up. These considerations have been kept in mind while formulating the Second Five Year Plan, but they are certain to claim even greater attention in the plans to come".

These words were prophetic. The issue continues to be of concern today, as expressed in the Approach Paper to the Tenth Plan, which specifically addresses the issue of uneven growth in the context of states. The Approach Paper notes that "the Plan has traditionally focused on setting national targets but recent experience suggests that the performance of different states varies considerably. For example, although the economy as a whole has accelerated, the growth rates of different states have diverged and some of the poorest states have actually seen a deceleration in growth.

Finance Commissions, which deal with constitutional centre-state transfers of tax revenues, have reflected this by their concern for "horizontal equity". In turn, these concerns, expressed by Finance Commissions and the Planning Commission have been translated into formal structures and formulae for the flow of resources for development, and the direction of industrial policies. Through the decades since independence, economic policy-makers have consistently sought to centrally manage and direct development resources into the lesser-developed parts of the country.

In this chapter, we seek to consider the regional dimensions of development with special reference to Madhya Pradesh. This is broadly looked at in two parts. In this chapter, the comparative trends in the growth of the economies of the major states since the early sixties are outlined, along with more recent comparisons of inter-state profiles of poverty and human development.

Inter-State Comparisons : Growth, Poverty and Human Development

Income Growth

The growth performance of states can be tracked by the data on State Domestic Product (SDP), which is reported by state governments and compiled by Central Statistical Organisation (CSO). CSO does not standardize the data or attempt to make them consistent with each other or the national accounts. However, while there exists this lack of consistency in the SDP data across states and in respect of the national accounts of the country, it is nevertheless used to analyse the growth of states. There have been recent studies on the subject by Ahluwalia (2000), Kurien (2000) and Chaudhuri (2001). Similarly, development economists have been comparing growth across different countries despite the data not being always fully comparable. The caveat is that while broad conclusions can be drawn from these data, too much significance should not be accorded to relatively small changes in indicators.

Further, while Gross State Domestic Product (GSDP) is considered standard for making per capita income comparisons in the current period, in the period before 1979-80, estimates of state income were available only in terms of Net State Domestic Product (NSDP). Accordingly, following the analysis of Chaudhuri (2001), NSDP is used for the pre-1980-81 period while GSDP is used for the post-1980-81 period.

The State of Madhya Pradesh was formed in 1956 pursuant to the States Reorganisation Commission recommendations. In the year 2000, this state was divided into the states of Madhya Pradesh and Chhattisgarh. In tracking the long run trends of growth, and a number of other indicators, it is the undivided state that is used as a basis of inter-state comparison, since data is available only for the undivided state in the period 1956-2000. Where subsequent comparisons are possible e.g as from the Census 2001 data, these have been used. However, since the essential features of the present state remain similar to that of the undivided state, the

Table 1: Changing Share of The Major States In The All-India Economy (in percentage)

States	1960-61		1998-99	
	NSDP at current prices	Per capita NSDP in Rs. –1960-61	GSDP at current prices	Per capita GSDP in Rs.- 1998-99
	Proportion to all-India level		Proportion to all-India level	
Maharashtra	11.2	410	15.6	27966
Uttar Pradesh	12.9	253	10.7	10416
Tamil Nadu	7.8	333	7.3	19488
Andhra Pradesh	6.9	276	7.1	15372
West Bengal	9.4	392	6.8	14191
Gujarat	5.2	364	6.3	21623
Madhya Pradesh	5.6	254	5.6	11663
Karnataka	4.8	298	5.6	17660
Bihar	6.9	217	4.1	6803
Kerala	3.0	260	3.9	19753
Rajasthan	3.9	282	3.9	12010
Punjab	2.8	368	3.4	23481
Haryana	1.7	330	2.7	22488
Delhi	1.2	678	2.5	29884
Orissa	2.6	216	2.2	10125
Assam	2.3	317	1.6	9863
Jammu & Kashmir	0.7	268	0.6	9998*
Himachal Pradesh	0.5	236	0.6	14312
All-India	100	331	100	16537

Source : Census data on population and mid-year projections, Central Statistical Organisation, State Income Data, Chaudhuri (2001).

comparison is valid.

Very shortly after the formation of the State in 1960-61, the economy of Madhya Pradesh represented a proportion of 5.6% of the economy of India as a whole. Four decades later, in 1998-99, the undivided Madhya Pradesh still represented a share of 5.6% of the economy of India. Table 1 indicates the changing share of the major states in the all-India economy over time.

The first observation on the undivided State of Madhya Pradesh is the relative constancy in the share of its economy in the national economy, right from its formation as a state till very close to its division.

More instructive is to look at the long term trend in per capita income of the states. Per capita income levels, while not taking into account intra-state individual differences in income levels, do represent a standardized measure of income. Just as in the eighties and nineties, the acronym BIMARU indicated a peer group of low income states with low levels of human development it is possible to identify a peer group of states to which the State of Madhya Pradesh belonged in the early sixties, in terms of income levels. There was a group of states in 1960-61 with per capita incomes (at current prices) fairly close to each other. These were: Uttar Pradesh with Rs.253, Madhya Pradesh with Rs. 254, Andhra Pradesh Rs. 276 and Rajasthan Rs. 282. The all-India per capita income level then was Rs. 331. The per capita income of Madhya Pradesh as a proportion of all-India per capita income was about 75%.

In terms of per capita income, these peer group states of the sixties followed relatively different growth paths. As may be seen from Table 2, of these states, while the relative position of Madhya Pradesh remained stable in relation to national per capita income, Uttar Pradesh experienced a continuous relative decline vis-à-vis the all-India level over the next four decades, and even Rajasthan declined in the 1990s. Madhya Pradesh on the other hand registered a mild increase.

Table 3 indicates the relative ranking of states based on the relative indices of per capita income given in Table 2

Table 2: Index of Per Capita State Domestic Product (SDP) at Constant Prices, Three Year Averages

State	1960-63	1975-78	1990-93	1996-99
Andhra Pradesh	87.84	89.61	78.86	90.84
Madhya Pradesh	74.59	72.60	74.20	77.12
Rajasthan	90.15	91.44	83.90	84.30
Uttar Pradesh	76.84	72.71	72.22	62.14
All India	100.00	100.00	100.00	100.00

NB:The indices indicate the proportion of the per capita income of these then less developed states to the national average (represented by index value of 100).

above, including other major states.

Taken over a long period, the ranking of Madhya Pradesh and Rajasthan indicated marginal changes, with Madhya Pradesh improving its inter-state position and Rajasthan slightly declining. The long term picture masks in the case of Rajasthan a surge in growth from about the mid-eighties onwards, which has enabled it to steadily improve its relative position since. It may be seen that notable declines in relative all-India rankings have taken place in the major states of eastern India, most notably West Bengal, but also in the case of Bihar, Orissa and Assam.

To round off the picture of income growth, we take a look at the recent trends in growth of Gross State Domestic Product [GSDP] per capita between two periods in Table 4. It shows that while the state grew at moderate rates in the 1980s, the pace of growth accelerated in the 1990s.

Public policy has consistently attempted to reduce regional disparities and bring about balanced regional development. The long term trends seem to indicate that these efforts in

Table 3: Ranking of States on the Basis of per Capita State Domestic Product – At Constant Prices

State	1960-63	1996-99
Andhra Pradesh	10	9
Assam	7	14
Bihar	17	17
Gujarat	3	3
Haryana	6	4
Himachal Pradesh	13	8
J&K	11	13
Karnataka	8	6
Kerala	12	7
Madhya Pradesh	16	12
Maharashtra	1	1
Orissa	15	16
Punjab	4	2
Rajasthan	9	11
Tamil Nadu	5	5
Uttar Pradesh	14	15
West Bengal	2	10

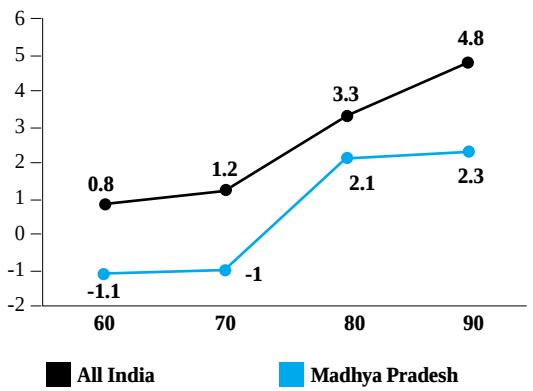
Source: Tables 2 and 3 rely on the analysis of Chaudhari (2001)

Table 4: Rates of Growth of Gross State Domestic Product

	1980-81 1990-91	1991-92 1997-98
Gujarat	5.08	9.57
Maharashtra	6.02	8.01
West Bengal	4.71	6.91
Rajasthan	6.60	6.54
Tamil Nadu	5.38	6.22
Madhya Pradesh	4.56	6.17
Kerala	3.57	5.83
Karnataka	5.29	5.29
Andhra Pradesh	5.65	5.03
Haryana	6.43	5.02
Punjab	5.32	4.71
Uttar Pradesh	4.95	3.58
Orissa	4.29	3.25
Bihar	4.66	2.69
All 14 States	5.24	5.92
All India	5.55	6.89

Source: Mid Term Appraisal of the Ninth Five Year Plan: Planning Commission

Trend Rates of Growth of Per Capita Income (% p.a.) MP vs All India, 1960-1/1969-70 to 1993-4/1998-99



public policy at national level have not been particularly effective in reducing regional disparities.

Growth of all-India per capita income has accelerated in the eighties and nineties relative to earlier period, and growth rates of most of the states have risen, in inter-temporal terms. For example, in the case of Madhya Pradesh, negative growth rates of per capita incomes in the sixties and seventies have been replaced by growth rates in excess of 2% per annum in the nineties, but the all-India growth rate has shot up by more than proportionately from around 1% per annum in the sixties and seventies to nearly 5% per annum in the nineties. For all States, the range of growth rates has widened, and if this persists, then economic disparities between states will continue to widen.

Comparative Profile of Poverty

The Planning Commission has been estimating the incidence of poverty at National and State level using the methodology contained in the report of the Expert Group on Estimation of Proportion and Number of Poor (Lakdawala Committee) and applying it to consumption expenditure data from the large sample surveys on consumer expenditure, conducted periodically by the National Sample Survey Organisation (NSSO). Official poverty estimates are accordingly available for the years 1973-74, 1977-78, 1983, 1987-88, 1993-94 and 1999-2000.

These official estimates may be considered to be the standard measure in mapping of State level poverty. Between two consecutive periods, there are often short-run fluctuations or variations in poverty estimates for particular States, which may not give a true picture of the overall trend, and may sometimes be due to changes in methodology. However, in considering this period as a whole, these variations tend to be ironed out and a better picture of the overall trend emerges. In the comparison of States, a long term trend of nearly three decades is available, if we consider the period from the first estimates for the years 1973-74, till the latest estimates in 1999-2000.

Since the analysis is with reference to Madhya Pradesh, we have taken for comparison estimates of six major states comparable in size to Madhya Pradesh and its basic characteristics. Further, with Madhya Pradesh being a largely rural state, we have taken the figures for rural poverty as a better comparison of the poverty profile. The estimates of six major comparative States for rural poverty are presented in the Table 5.

There are two schools of thought on the impact of economic growth on poverty reduction. One view is that growth per se has a poverty reducing impact, and accordingly one would expect to find poverty decline more rapidly in the faster growing States and less rapidly in the others. According to this view, only a substantial higher rate of growth can bring about the expansion in productive income earning opportunities needed to bring about a significant reduction in poverty.

The other view is that while economic growth has the potential to reduce poverty, equating growth with poverty reduction is too simplistic. Effective public policy interventions are needed for translating growth into reduction in poverty levels. These interventions should be such that they bring about improvements in physical and social infrastructure

Table 5: Percentage of People Below Poverty Line in Rural Areas

States/ UTs	Percentage of Persons 1973-74	Percentage of Persons 1977-78	Percentage of Persons 1983	Percentage of Persons 1987-88	Percentage of Persons 1993-94	Percentage of persons 1999-2000 (30 day recall)
Bihar	62.99	63.25	64.37	52.63	58.21	44.30
Orissa	67.28	72.38	67.53	57.64	49.72	48.01
Uttar Pradesh	56.53	47.6	46.45	41.10	42.28	31.22
Madhya Pradesh	62.66	62.52	48.90	41.92	40.64	37.06
Rajasthan	44.76	35.89	33.50	33.21	26.46	13.74
Andhra Pradesh	48.41	38.11	26.53	20.92	15.92	11.05

Source: Planning Commission

leading both to expansion of social opportunities as well as more equitable access to productive assets. Otherwise, growth per se would not have a trickle down effect, and may instead, in all likelihood lead to worsening of inequalities.

In the long run trends of States, there does appear to be a positive linkage between growth and poverty reduction in the case of some States. Significant declines of between 33 and 40 percentage points in rural poverty as a whole have been recorded in the period in question by the faster growing states of Maharashtra, Tamil Nadu, Karnataka, Gujarat, Andhra Pradesh. In the case of MP, moderate growth has been accompanied by moderate declines in poverty over a long period. Both Bihar and Orissa have recorded relatively poor economic growth, and there seems to have been correspondingly little impact on poverty reduction.

Human Development Across States

In the literature on the subject, human development is referred to as both the end and the means of development. Successive Five Year Plans have articulated human development concerns, though not necessarily in these words. The Eighth and Ninth Five Year Plans regarded human development as the ultimate goal of public action.

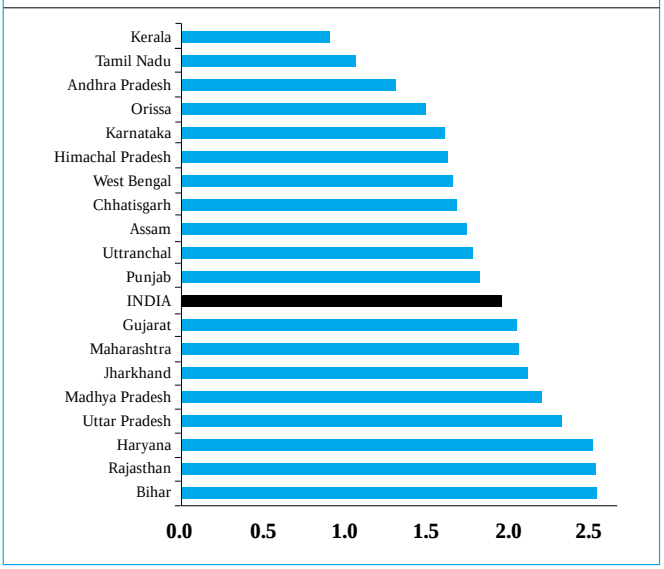
Madhya Pradesh was the first of the States with very low social indicators to articulate human development concerns and build it in as a cornerstone of state policy. The visible expression of these priorities was the bringing out of the Madhya Pradesh Human Development Report, 1995.

We now take a quick look at the profile of some States including Madhya Pradesh in two critical indicators of human development to see where they stand today. The first comparison is of the growth rates of population, for which the most recent data is provided by 2001 Census, and the other is infant mortality rate, which is available for the year 2000. Population growth is the net effect of natural growth (resulting from births and deaths) and net migration. For the larger States it is the natural growth which contributes mainly to population growth. In the Indian context, higher population growth rate for a State reflects demographic transition in which death rates have declined but birth rates have yet to decline commensurately.

While the state of Madhya Pradesh has a relatively high levels of population growth over the last decade, there has been a substantial decline in the decadal rate of growth over the previous decadal period, from 27 percent between 1981 and 1991 to 24 percent between 1991 and 2001, and this has been the lowest amongst the peer states, Uttar Pradesh, Rajasthan, Bihar. The high population growth rate has its own problems, especially for a poorer State, in terms of providing essential services and adequate opportunities for its people, and at current rates it would take more than a couple of decades for the population to stabilise.

In another critical indicator of human development, infant mortality rate is amongst the highest in India, and this has remained so for the last many years. The low health indicator is attributable to many factors in the state. The nationally set norms for health services and health centres do not provide good access to health to people in this state with a population density much lower than national rates, a vast forest cover, and undulating terrain over most parts.

Growth of Population in States of India, 1991-2001



On the other hand, in education there has been remarkable progress in the state in the last seven to eight years. Over the last decade, the states literacy shot up from 45 percent to 64 percent, and female literacy from 29 percent to fifty percent. For the first time, the State has a literacy rate almost the same as the national average. There have also been other considerable achievements that have ensured universal access to elementary education, a very high, and near total enrolment that is sustained by high rates of retention. The significant improvements made by Madhya Pradesh in the last decade have been due to top priority assigned to proactive and innovative programmes for increasing literacy and enhancing access to education. The substantial achievement of the last decade in female literacy needs to be continued to take over the gaps that still remain.

The low level of human development in the State have in the past been one of the factors that have acted as a drag in the improvement in both economic growth performance as well as rural poverty reduction. With the recent developments, especially in education, and innovative programmes that focus around decentralisation on the one hand and a rights based framework on the other, the coming years would undoubtedly improve the levels of human development in Madhya Pradesh.

Finally in order to better understand the inter-State dimensions of progress, we look at the infrastructure

endowments of the States. Poor infrastructure has always been a handicap to growth. In the last decade, the importance of adequate infrastructure has been widely recognised and emphasised. Favourable infrastructure endowments are now seen as an important factor contributing to the attractiveness of the State for private investments.

Infrastructure is an area which backward States will never be able to address effectively without help from the Government of India. The fact remains that public policy at the National level has not responded effectively to the infrastructure inde, inspits of commitments shown in various Places and Finance Commission documents. Poor infrastructure has been impacting on the efforts to expand social opportunities as well avenues for increasing incomes and productivity.

The trends presented above indicate, in sum, that the State of Madhya Pradesh recorded rising but moderate levels of growth during the period of its existence as an undivided state, neither increasing nor decreasing its share in the national economy. The proportion of rural poverty in the state has declined. The goal of population stabilisation is a long way away. In terms of human development indicators, while significant progress has been made on the literacy front in the last decade, the overall relative position continues to bracket the state in the group of heartland states with relatively poorer indicators. Wide infrastructure differentials remain between Madhya Pradesh and most other states.

Implications for the State

The reasons as to why the gap between the leading States and States like Madhya Pradesh is growing should be a concern for national policy. It would not be possible for the country as a whole to realise the high growth rates projected for the Tenth Plan and beyond unless the relatively lower growth rates in major States like MP are stepped up. The Approach Paper to the Tenth Plan expresses this in the following words "It is important to recognise that the sharp increase in the growth rate and improvement of social indicators that is being contemplated for the Tenth Plan is possible only if there is a significant improvement in the growth rates of the slow growing States. Indeed if the higher growth targets is sought to be achieved with a continuation of the low growth rates observed in some of the most populous States, it would necessarily imply a very large increase in inter-state inequality with serious consequences for regional balance and national harmony".

Increasing the rate of growth of the economy of the state is thus not only an imperative for the State but also for the country as a whole. There is a need to focus on ways and means to increase the rates of growth of the State significantly, aiming perhaps at a rate double the current one.

While increased growth rate would by itself contribute to some extent to poverty reduction, as noted earlier, appropriate public policy initiatives for reduction in poverty by better land and water management would help broad-base the benefits of growth. The State would also need to concentrate on both improving infrastructure and the levels of human development, since both are interlinked in terms of delivery of services as well as providing access to income earning opportunities. These areas prioritise themselves precisely because the State lags behind in these, and because these areas are amenable to public policy action.

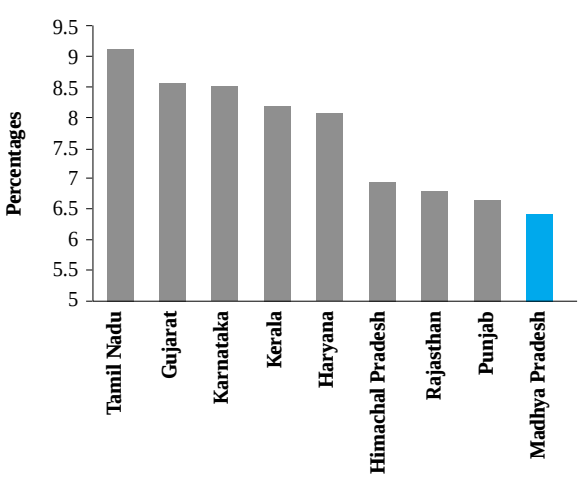
However, public policy interventions need to be supported by adequate financial resources. These resources may be public or private. The aim should be for private investments to lead in the financing of the growth of economically productive activities in the State, whether in the industry, agriculture and services sectors. Industrial growth depends upon availability of infrastructure support in the form of power, transport, communications, while agricultural growth depends on rural infrastructure such as irrigation, rural electrification, rural roads. Public investments would need to be focused on human development, to expand opportunities for the people, and also on strengthening of infrastructure. These alone would make the state attractive for private investment flows, much more than any incentives that the government may provide.

Ideally, both Central and State sector public investments should be directed as much as possible to build economic and social infrastructure in poorly endowed and less developed States like Madhya Pradesh, to help remove constraints on growth and leverage private investments. The Eleventh Finance Commission noted that "States with good infrastructure are attracting private investments" and that "Central investments should be redirected taking this fact in view".

The Financial and Developmental Challenge

Whether it is to step up public investment in critical social and economic infrastructure sectors, or to attract private

Tax/NSDP Ratios (News Series) Selected States, 1998-99



investment, it is necessary for the state to strengthen its fiscal position. The States fiscal position is affected both by generating more revenue as well as by managing expenditure better. Without embarking on a treatise on state finances, we present here a picture of the States finances, and compare them to performance with other states.

Before we do that, it is necessary to state two points. From 1992/93, the State Government had made the human development sectors a priority area for government action. This kind of focussed prioritisation had reduced emphasis on other sectors. This did force the State to decrease investments in infrastructure. Since 1998/99, with concerted action on social sectors taking off, emphasis towards physical build up of the state and reforms in key financial and infrastructures has now started.

Madhya Pradesh has a relatively low tax base with forty percent of the states income accruing from agriculture, mining and forestry. This puts constraints to the tax potential in Madhya Pradesh. There is not enough buoyancy in the revenue collections. Compared to other states, the ratio of tax to SDP (a standardized measure of tax effort) is low, as can be seen from the comparison of the figures for 1998-99 in Graph.

It must also be recognised that the State has far more responsibility towards development than the centre, and the fiscal crisis of the 1990's led by the acceptance of recommendations of the Fifth Pay Commission has put the state in a dock. To overcome both the impact of the fiscal crisis, and the low tax base, the state had to resort to borrowings to cover its deficits. However, Madhya Pradesh has been a conservative borrower. Table 8 clearly shows the Debt to SDP ratio of Madhya Pradesh as being amongst the lowest in Indian states.

Table 8: Debt as percentage of State Domestic Product

State	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00 (B.E.)
Andhra Pradesh	19.08	18.46	18.70	18.54	19.18	20.29	20.95
Arunachal Pradesh	31.78	37.28	36.01	41.77	39.42	40.23	48.00
Assam	27.26	25.72	27.02	27.21	23.85	23.23	24.12
Bihar	32.43	32.12	34.85	32.50	32.30	33.14	35.31
Goa	42.47	39.65	35.44	31.20	32.57	34.21	35.54
Gujarat	18.33	15.96	16.16	15.93	16.78	18.13	18.95
Haryana	18.94	17.92	19.24	17.65	19.24	21.14	22.58
Himachal Pradesh	38.37	38.21	45.19	42.48	44.34	55.87	58.59
Jammu & Kashmir	57.38	55.19	48.83	51.31	50.04	47.98	47.15
Karnataka	16.32	16.63	16.44	16.27	16.58	17.48	18.94
Kerala	26.32	26.66	24.87	24.10	25.18	27.13	28.16
Madhya Pradesh	17.70	17.57	17.46	17.27	17.56	18.63	19.17
Maharashtra	11.99	11.79	10.83	11.56	12.29	13.08	13.92
Manipur	34.01	32.25	32.91	30.12	39.02	44.66	46.80
Meghalaya	19.34	22.12	20.53	21.87	20.87	23.35	26.71
Mizoram	15.49	47.75	47.04	56.31	50.46	58.39	59.76
Nagaland	39.21	39.36	44.41	45.55	48.58	50.92	50.36
Orissa	33.16	32.25	33.28	38.75	35.24	37.79	39.95
Punjab	33.59	33.60	33.80	32.33	32.29	34.58	34.89
Rajasthan	25.35	23.45	24.60	24.21	25.42	28.85	31.95
Sikkim	52.09	52.03	52.22	52.02	51.33	64.24	71.24
Tamil Nadu	15.82	15.72	15.51	14.88	15.45	16.41	16.77
Tripura	36.94	32.46	35.04	32.20	34.15	37.18	40.25
Uttar Pradesh	26.39	25.98	26.08	24.43	26.06	27.97	29.28
West Bengal	20.15	20.43	20.50	21.47	22.88	26.19	30.44
Total	21.54	21.01	20.89	20.71	21.39	22.98	24.33

GSDP figures are on the basis of information received from the CSO. These are for new series from 1993-94 to 1996-97 and thereafter EFC estimates
Source : Report of the Eleventh Finance Commission, Government of India

Table 9: Share of different States in total debt of All States

State	1993	1994	1995	1996	1997	1998	1999	2000 (B.E)	Growth Rate ('93-'00)
Andhra Pradesh	6.59	6.98	6.99	7.11	7.03	7.04	7.06	6.86	0.42
Arunachal Pradesh	0.15	0.15	0.17	0.18	0.18	0.18	0.17	0.19	2.96
Assam	2.92	2.57	2.51	2.61	2.32	2.08	1.85	1.81	-6.53
Bihar	8.14	8.03	7.69	7.47	7.18	7.03	6.69	6.77	-2.95
Goa	0.63	0.60	0.54	0.51	0.49	0.47	0.46	0.45	-4.81
Gujarat	6.28	6.17	5.97	5.97	5.93	6.09	6.18	6.08	-0.20
Haryana	2.31	2.38	2.32	2.45	2.42	2.44	2.54	2.58	1.48
Himachal Pradesh	1.10	1.08	1.18	1.31	1.29	1.31	1.60	1.62	6.10
Jammu & Kashmir	2.53	2.42	2.10	1.92	1.91	1.87	1.68	1.50	-6.71
Karnataka	4.48	4.73	4.78	4.67	4.70	4.72	4.65	4.66	0.19
Kerala	4.00	4.10	4.25	4.28	4.30	4.37	4.33	4.26	0.96
Madhya Pradesh	5.84	5.83	5.60	5.57	5.55	5.43	5.48	5.27	-1.33
Maharashtra	9.97	10.13	10.00	10.08	10.42	10.60	10.69	10.88	1.30
Manipur	0.32	0.31	0.28	0.27	0.29	0.35	0.36	0.35	2.55
Meghalaya	0.18	0.20	0.22	0.21	0.20	0.21	0.23	0.24	3.05
Mizoram	0.18	0.21	0.21	0.22	0.26	0.24	0.24	0.23	3.58
Nagaland	0.35	0.32	0.32	0.34	0.33	0.36	0.35	0.33	0.43
Orissa	4.04	4.14	4.08	4.15	4.17	4.14	4.12	4.11	0.17
Punjab	5.70	5.82	5.75	5.63	5.43	5.40	5.42	5.19	-1.46
Rajasthan	5.18	5.41	5.46	5.66	5.84	5.82	6.03	6.24	2.49
Sikkim	0.12	0.12	0.12	0.11	0.11	0.11	0.13	0.14	1.46
Tamil Nadu	6.02	6.18	6.16	6.00	5.96	5.85	5.75	5.56	-1.28
Tripura	0.41	0.41	0.39	0.38	0.36	0.36	0.36	0.37	-1.96
Uttar Pradesh	15.74	14.72	15.91	15.77	15.97	15.96	15.65	15.19	0.09
West Bengal	6.82	6.99	7.00	7.13	7.36	7.57	7.98	9.12	3.59
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

Note : Absolute figures of Outstanding Debt include Internal Debt, Loans from Centre, Provident Funds, Insurance Funds and Reserve Funds and Deposits
Source : Report of the Eleventh Finance Commission, Government of India

Further, the share of Madhya Pradesh in the total debt of Indian states has also been declining in the last seven to eight years. The growth rate of the share in the case of Madhya Pradesh has been -1.33 percent between 1993 and 2000, with its share dropping from 5.84 percent to 5.27 percent (see Table 9).

The states off-budget borrowings have also been low, and while most other states have resorted heavily to such borrowings, Madhya Pradesh has used this source only off late and that too in small measure. The need for investments in infrastructure has led the state towards such borrowings, which include options such as bond roads.

In tackling the fiscal crisis, there has been some success in measures over the last six years. We have a case where the revenue deficit, the fiscal deficit and the primary deficit, all three have reduced. The Table 10 shows that since 1998/99 the revenue deficit has almost halved, and primary deficit has gone down even further.

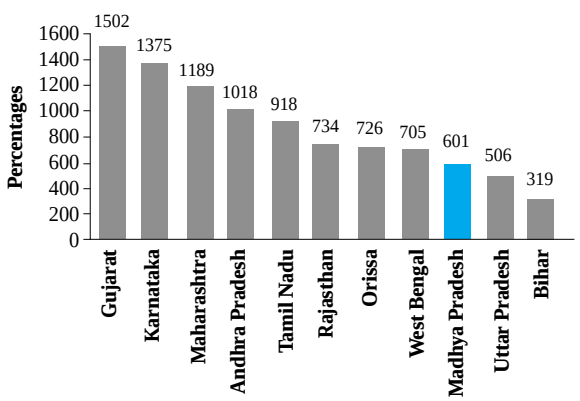
The positive signs in reducing deficits have been helped greatly by a reduction on government bureaucracy over last

Table 10: Financial Parameters of Madhya Pradesh Government

Parameter	1998-99	1999-2000	2000-01	2001-02	2003-03
Rs in crores	Actuals	Actuals	Actuals	Actuals	BE
Revenue Deficit	-2871.80	-2932.26	-1319.34	-1466.50	-94.84
Fiscal Deficit	-4126.72	-3911.38	-2712.11	-2182.44	-3249.02
Primary Deficit	-2291.97	-1772.72	-301.33	-432.48	-830.88
Revenue Deficit as % of NSDP	-3.64	-3.38	-1.56	-1.85	-0.11
Fiscal Deficit as % of NSDP	-5.23	-4.50	-3.20	-2.75	-3.72
Primary Deficit as % of NSDP	-2.90	-2.04	-0.36	-0.55	-0.95
Capital Expenditure	1009.83	950.07	1110.51	1454.51	2434.03
Capital Expenditure as % to NSDP	1.28	1.09	1.31	1.83	2.79

Source : Department of Finance, Government of Madhya Pradesh

Per Capita Plan Outlay of States, 2000-01 (Rs.)



Source: Planning Commission

few years, which was enabled by a virtual stop to recruitment in many areas and reduced intake in others.

A considerable impact has also been of decentralisation. The initiatives and new programmes in education and health has greatly helped here. While teachers and other ground programme staff are now managed by panchayats, community managed programmes such as the Education Guarantee Scheme has reduced the salary burden of teachers, although their numbers have increased. Similarly, with panchayats and peoples collective managing many programmes, it has reduced the management burden on government staff, and also reduced basic costs of implementation. Decentralisation measures are also good for better fiscal management.

The other improvement has come from reforms in many sectors. User charges in many sectors are today pitted almost equal to if not above the economic rate of return. In the power sector, which was one of the biggest draws on state exchequer, reforms in user charges have taken them to their economic rate of return and this has helped greatly in debt control.

These signs indicate that measures in fiscal control are making their effect today. If the current scenario continues we could expect some significant impact in the next 3-4 years. This will make available valuable resources need to raise rates of growth and sustainably improve human development indicators.

The prescriptions for tackling the financial position are well known. Many of these are already being implemented by the state to positive effect. The solutions targeting and reduction of direct and indirect subsidies, which include the levy of adequate user charges for economic services; reducing the drain on state finances due to mis-management of power sector entities and loss making public sector enterprises: modernisation of tax administration coupled with determination to realise revenues due to the state and downsizing of the state bureaucracy to affordable levels is an acknowledged imperative, and some of these steps are already being put in place. In Madhya Pradesh, as in many other states today, there needs clarity of purpose whether government exists for the public or it exists for the public servants.

What is to be appreciated is that these problems are not just "a fiscal problem" or something that relates to the Finance Department of the State Government. This is first and foremost a developmental challenge for the state. The resources available to a state like Madhya Pradesh, which started as one of the backward regions of the country cannot match those of the developed regions. It is here that the Planning Commission has failed poorer states in not addressing the growing inequality between states. Infact the outlays for the tenth plan in comparison to the ninth plan have in fact dropped for poorer States, and this would in all probability worsen the already widening disparities.

THE HUMAN DEVELOPMENT INDEX FOR MADHYA PRADESH, 2001

District	EDUCATION			HEALTH		INCOME		HUMAN
	Literacy	Children's Enrollment in Schools	Education	Life Expectancy	Health	Adjusted per capita Income	Income	DEVELOPMENT INDEX
	A	B	D	E	F	G	H	I
Indore	0.748	0.937	0.811	0.746	0.746	0.526	0.526	0.694
Bhopal	0.751	0.937	0.813	0.665	0.665	0.510	0.510	0.663
Raisen	0.728	0.936	0.797	0.505	0.505	0.632	0.632	0.645
Ujjain	0.712	0.864	0.763	0.580	0.580	0.555	0.555	0.632
Mandsaur	0.707	0.973	0.795	0.558	0.558	0.544	0.544	0.632
Ratlam	0.677	0.914	0.756	0.551	0.551	0.584	0.584	0.630
Neemuch	0.665	0.925	0.751	0.558	0.558	0.570	0.570	0.626
Gwalior	0.698	0.897	0.764	0.672	0.672	0.435	0.435	0.624
Shajapur	0.711	0.953	0.792	0.555	0.555	0.505	0.505	0.617
Dewas	0.610	0.865	0.695	0.639	0.639	0.497	0.497	0.610
Narsimhapur	0.783	0.931	0.833	0.531	0.531	0.466	0.466	0.610
Harda	0.668	0.877	0.738	0.510	0.510	0.516	0.516	0.588
Chhindwara	0.660	0.866	0.729	0.591	0.591	0.440	0.440	0.586
Hoshangabad	0.704	0.888	0.765	0.510	0.510	0.478	0.478	0.584
Balaghat	0.688	0.930	0.769	0.558	0.558	0.415	0.415	0.580
Mandla	0.608	0.943	0.720	0.626	0.626	0.388	0.388	0.578
Jabalpur	0.762	0.931	0.818	0.542	0.542	0.356	0.356	0.572
Damoh	0.621	0.916	0.719	0.484	0.484	0.501	0.501	0.568
Bhind	0.712	1.000	0.808	0.582	0.582	0.306	0.306	0.566
Sagar	0.681	0.902	0.755	0.484	0.484	0.456	0.456	0.565
EastNimar (Khandwa)	0.617	0.880	0.705	0.544	0.544	0.440	0.440	0.563
Sehore	0.638	0.895	0.724	0.491	0.491	0.466	0.466	0.560
Dhar	0.527	0.780	0.611	0.641	0.641	0.424	0.424	0.559
Dindori	0.545	0.882	0.657	0.626	0.626	0.387	0.387	0.557
Sidhi	0.528	0.845	0.634	0.550	0.550	0.481	0.481	0.555
Seoni	0.659	0.906	0.741	0.582	0.582	0.326	0.326	0.550
Vidisha	0.621	0.920	0.721	0.495	0.495	0.431	0.431	0.549
Datia	0.735	0.940	0.803	0.504	0.504	0.322	0.322	0.543
Katni	0.647	0.925	0.739	0.542	0.542	0.345	0.345	0.542
Betul	0.669	0.939	0.759	0.494	0.494	0.359	0.359	0.537
Shahdol	0.578	0.946	0.700	0.535	0.535	0.338	0.338	0.525
Morena	0.656	0.987	0.766	0.540	0.540	0.255	0.255	0.520
Sheopur	0.466	0.835	0.589	0.540	0.540	0.412	0.412	0.514
Rajgarh	0.540	0.771	0.617	0.487	0.487	0.408	0.408	0.504
West Nimar (Khargone)	0.634	0.832	0.700	0.576	0.576	0.217	0.217	0.498
Guna	0.599	0.909	0.702	0.476	0.476	0.300	0.300	0.493
Umaria	0.603	0.881	0.695	0.535	0.535	0.245	0.245	0.492
Satna	0.651	0.894	0.732	0.410	0.410	0.307	0.307	0.483
Rewa	0.623	0.868	0.705	0.476	0.476	0.254	0.254	0.478
Shivpuri	0.595	0.918	0.703	0.372	0.372	0.343	0.343	0.473
Panna	0.616	0.868	0.700	0.466	0.466	0.243	0.243	0.470
Tikamgarh	0.558	0.821	0.646	0.463	0.463	0.296	0.296	0.468
Chhatarpur	0.534	0.877	0.649	0.424	0.424	0.273	0.273	0.449
Barwani	0.413	0.713	0.513	0.576	0.576	0.177	0.177	0.422
Jhabua	0.371	0.670	0.471	0.513	0.513	0.133	0.133	0.372

THE GENDER RELATED DEVELOPMENT INDEX FOR MADHYA PRADESH, 2001

District	EDUCATION					HEALTH			INCOME			GENDER RELATED DEVELOPMENT INDEX
	Literacy Rate		Child Enrolment		Education Index	Expectancy of Life		Health Index	Adjusted per capita income		Income Index	
	Male	Female	Male	Female		Male	Female		Male	Female		
Dewas	83.7%	57.6%	91.7%	80.5%	0.747	64.7	62.0	0.635	17389	8138	0.522	0.634
Ratlam	85.8%	54.9%	94.2%	87.8%	0.758	57.0	59.3	0.552	21020	9432	0.588	0.633
Shajapur	83.7%	57.9%	96.5%	93.7%	0.782	57.0	59.6	0.556	17178	8724	0.543	0.627
Mandsaur	83.0%	49.1%	100.0%	89.7%	0.737	58.9	57.9	0.553	19321	9336	0.575	0.622
Dindori	86.8%	69.0%	89.9%	86.2%	0.808	61.6	63.8	0.627	11119	6898	0.415	0.617
Ujjain	80.1%	54.7%	90.4%	81.6%	0.726	62.4	57.2	0.570	20170	8424	0.549	0.615
Balaghat	77.5%	54.1%	93.7%	92.3%	0.739	58.9	58.1	0.553	14614	8274	0.501	0.598
Neemuch	68.0%	36.4%	93.6%	91.0%	0.640	59.9	56.9	0.551	19643	9473	0.582	0.591
Sehore	82.6%	66.7%	92.2%	86.4%	0.793	51.9	57.4	0.494	15888	7396	0.483	0.590
Narsimhapur	91.4%	59.5%	94.1%	91.9%	0.803	59.4	54.4	0.522	17725	6333	0.437	0.588
Damoh	80.0%	54.5%	92.2%	90.9%	0.748	52.6	55.7	0.486	18046	8067	0.526	0.586
Raisen	78.1%	48.0%	95.1%	91.7%	0.723	53.6	57.2	0.507	24907	7295	0.522	0.584
Indore	66.2%	38.6%	93.9%	93.5%	0.653	74.1	65.6	0.736	21205	5113	0.353	0.581
Harda	77.3%	56.0%	90.7%	83.9%	0.730	57.6	53.4	0.500	16931	7781	0.506	0.579
Chhindwara	76.7%	45.4%	88.5%	84.6%	0.680	62.2	58.7	0.584	16102	6945	0.459	0.575
Sidhi	69.6%	45.4%	88.6%	79.8%	0.653	59.9	56.1	0.542	16894	8016	0.514	0.570
Sheopur	76.8%	50.3%	88.0%	77.5%	0.689	60.5	54.4	0.530	17168	7301	0.488	0.569
Seoni	76.7%	54.8%	91.8%	89.3%	0.733	59.4	60.2	0.578	11377	6092	0.378	0.563
Mandla	70.4%	38.5%	96.7%	91.7%	0.657	61.6	63.7	0.627	11419	6601	0.404	0.563
Betul	82.2%	61.9%	95.8%	91.9%	0.787	55.6	53.8	0.490	12872	6214	0.398	0.558
Katni	81.4%	58.0%	94.0%	90.5%	0.766	57.0	58.5	0.545	13822	5568	0.365	0.558
Datia	80.8%	56.8%	94.4%	93.4%	0.769	58.9	51.6	0.491	11848	6044	0.388	0.549
Rajgarh	74.1%	48.5%	83.9%	69.2%	0.649	62.0	53.0	0.520	13831	7576	0.473	0.548
Bhopal	74.7%	47.4%	93.5%	94.0%	0.713	64.9	64.7	0.663	21045	4326	0.265	0.547
Sagar	74.0%	47.8%	91.5%	88.7%	0.700	54.0	54.0	0.483	16828	6602	0.451	0.545
West Nimar (Khargone)	84.7%	64.0%	85.5%	80.4%	0.766	59.8	59.5	0.575	9784	4917	0.289	0.543
Shahdol	74.1%	45.6%	95.5%	93.5%	0.703	57.1	57.1	0.533	13316	5719	0.371	0.535
Dhar	48.8%	25.5%	81.4%	74.0%	0.493	65.8	60.7	0.628	14672	7528	0.477	0.533
Hoshangabad	78.4%	54.1%	90.2%	87.1%	0.732	57.0	54.0	0.503	18937	5165	0.354	0.530
Gwalior	84.1%	55.7%	92.0%	86.9%	0.759	68.8	61.5	0.662	18160	3649	0.161	0.527
East Nimar (Khandwa)	51.1%	31.4%	90.3%	85.2%	0.560	57.6	57.8	0.543	15641	6759	0.448	0.517
Shivpuri	82.9%	62.5%	94.0%	88.8%	0.788	50.8	43.8	0.352	12755	6070	0.397	0.512
Bhind	81.0%	46.8%	100.0%	100.0%	0.753	66.0	54.0	0.562	12938	4052	0.221	0.512
Jabalpur	79.9%	48.5%	93.3%	92.8%	0.728	58.1	57.3	0.543	14627	4315	0.252	0.508
Umaria	76.0%	47.8%	89.9%	86.1%	0.694	56.6	57.6	0.534	11161	4869	0.294	0.508
Rewa	77.8%	51.4%	89.5%	83.7%	0.709	56.0	51.0	0.464	10491	5350	0.328	0.500
Barwani	75.2%	50.9%	74.9%	67.2%	0.645	57.9	57.4	0.541	8875	4872	0.277	0.488
Tikamgarh	74.7%	43.1%	85.1%	78.2%	0.651	57.3	48.1	0.439	11124	5851	0.368	0.486
Vidisha	69.5%	37.4%	93.4%	90.3%	0.651	55.8	53.4	0.490	17232	4703	0.306	0.482
Guna	74.8%	41.5%	95.1%	85.4%	0.673	56.5	50.5	0.463	12580	4719	0.292	0.476
Satna	75.1%	47.5%	91.3%	87.3%	0.696	51.5	47.8	0.401	12404	5195	0.330	0.476
Panna	65.5%	39.4%	89.3%	83.7%	0.628	56.2	50.0	0.454	10984	4965	0.304	0.462
Jhabua	76.1%	44.9%	74.6%	58.5%	0.598	60.5	51.3	0.489	7823	4843	0.263	0.450
Chhatarpur	68.8%	41.0%	90.5%	84.3%	0.648	53.6	47.4	0.411	11595	4640	0.282	0.447
Morena	62.2%	29.0%	99.0%	98.4%	0.624	61.8	53.2	0.528	11174	3651	0.157	0.436

Technical Notes on the Human Development Index

The district level human development index for Madhya Pradesh[1] was first calculated in the Madhya Pradesh Human development Report 1995 and then subsequently in 1998. In both these years while some of the data remained the same, there was a shift in methodology as it evolved both in the UNDP international reports and in accordance with data availability at the district level.

The district wise human development index and the gender related development index in this report also changes both in the data it uses and the methodology. The districts HDIs in the three MP reports are therefore not strictly comparable.

1. Human Development Index

The Human Development Index is a composite index comprising of levels of human development in education, longevity or health, and in access to opportunities measured in per capita incomes, with the present status of districts in these parameters related with certain absolute achievement positions, or some desirable achievement positions. This index is a measure of how far a district has travelled, from a minimum level of achievement, and the path still to travel.

The index is calculated by the following formula:

$$HDI_{ij}\ (Index) = \frac{Value_{ij} - Min_j}{Target_j - Min_j}$$

HDI_{ij} = Index of deprivation for the i^{th} district for the j^{th} criterion.

Target j = This is the maximum achievable target for the j^{th} criterion (for example, it is 100 per cent for literacy).

Value ij = This is the value of the i^{th} district for the j^{th} criterion.

Min j = This is the minimum value for the j^{th} criterion (it is 0% for literacy)

The methodology is illustrated later, with an example of Betul district.

The criteria used for the district HDI and the methodology applied for the Madhya Pradesh Human Development Index (MPHDI) for districts are given below. It needs to be mentioned here that calculations for the indices and the data used for such calculations should not be used in isolation from the index. Much of the district data used is relevant in comparing districts and may not be a proper indicator in isolation to the index.

1.1 Education

UNDP uses adult literacy rate (literacy of population 15 years and above) as one of the two parameters. The other parameter used in enrolment of children aged 6-14 years. Data for literacy is now available for the year 2001 from the Census undertaken, but this literacy pertains to population aged six years and above and appropriate data for ages 15 years and above has still not been released by the Census. Taking literacy of ages six and above and enrolment rates of children aged six to fourteen leads to double counting of the educational attainment of the population aged six to fourteen as many children attending schools would also be literate. However, as we do not have data to calculate literacy for 15 years and above, we use the available data only.

Literacy rate for the population was calculated as percentage share of all literate in a district over the total population of people above 6 years of age in the district.

In the 1995 MPHDI, female literacy was given a weight greater than male literacy for the literacy index. However, this year since a separate Gender Development Index has also been calculated to assess the relative level of development of women vis-à-vis men, the literacy index used now does not give any extra weight to female literacy.

For the target maximum figure for the purpose of calculating the Index of Deprivation in literacy, we use 100 per cent this time, as against 80 percent used in 1995. The minimum rate is taken as 0 percent.

The second component of education is the combined school level enrolment. The figures for children enrolled in

1 It pertained to the undivided state of Madhya Pradesh, which included the newly carved state of Chhattisgarh.

schools in 2000 have been provided by the Rajiv Gandhi Shiksha Mission, Government of Madhya Pradesh. These rates have been calculated from a state wide child to child, habitation to habitation survey of children under the Lok Sampark Abhiyan.

The enrolment figures in some cases have exceeded the estimated for population in age group 6-14 years. In such cases we have taken the enrolment rate to be 100 percent.

The target maximum for this enrolment has been taken at 100 percent, and the target maximum is 0 percent enrolment.

The two indices of literacy and school level enrolment were combined to get the Index of Deprivation for Education. The indices were combined in a weighted average, with 2/3 for literacy and 1/3 for all children in schools. A higher weight for literacy was taken to give importance to this most essential criterion and keeping in mind the problems of data in enrolment figures.

1.2 Health

Life Expectancy is the single criteria to assess the health status. In 1995, data for Life Expectancy was not available for all the districts and hence, Infant Mortality Rates were used for the year 1981 based on Census Fertility tables. Since then, Census has released Fertility tables for 1991 that permits us to arrive at indirect estimates for Life Expectancy at birth for districts. The indirect estimates for 1991 were arrived at using methodology applied by Census for calculating mortality tables for 1981[2]. This is explained in detail later in this chapter. These estimates are subject to corrections, after final fertility tables are released, and Census publishes estimates for Life Expectancy based on this data, however these are not yet available to us. Census had released estimates for child mortality in 1991, but is yet to publish estimates for Expectancy of Life at the time of the publication of this report.

No data has been released from the 2001 census, which would help us in making estimations on either the Infant Mortality Rate or the Life Expectancy in the districts of Madhya Pradesh in 2001. However, we do have the life expectancy of the state as a whole and for its regions from National Sample Surveys Regional estimates. We used these regional estimates and the state level estimates to project district level life expectancies in the state from 1991 to the year 2001.

For the maximum target, a figure of 85 years was taken, and for the minimum value, figure of 25 years was applied to calculate the Health Development Index.

1.3 Income

The UNDP HDI uses 'adjusted per capita income for countries' to calculate the Index of Income. The State Government does not calculate district per capita incomes or district domestic product in Madhya Pradesh. Since it is extremely difficult to assess district domestic products directly, and thereby come to an assessment of per capita income, we have used district incomes derived from the net state domestic product (NSDP) for our use.

Data for calculating the district domestic product (DDP) is not available to enable a district – to – district calculation. The state domestic product is calculated under 16 categories by using sources from the State's own production and economic activities (such as, for agriculture, fisheries, forests, electricity etc). Estimation of the volume of products is done from different sources using centrally administered surveys by the Central Statistics Organisation (CSO), Annual Survey of Industries (ASI), etc. (for Railways, Industry, Unregistered Manufacturing, Gas, Water) and a mix of various sources. Unfortunately this is not available for districts, and we have to resort to other means to divide the SDP district wise, under the 16 major categories. Further, while the State Domestic Product is a sum of estimates in 16 different categories, many of these 16 are a sum of different components. Unfortunately, no information of the break up of the 16 categories into its sub-categories was available. This was a major constraint in arriving at estimates for relative strengths of districts in per capita incomes. The Department of Economics and Statistics has recently undertaken the task of preparing district income estimates, but the data is not yet ready[3]. This prevented us from more valid estimates for district and per capita incomes. However, the methodology adopted for arriving at district and per capita incomes is a "best possible" attempt by us, drawing on the methodology used by the Department of Economics and Statistics to arrive at State level figures, and applying it to the district level. The basic methodology suggested by CSO was also applied wherever possible.

A note of caution is necessary here. Calculating district level incomes is a difficult task given the lack of data at this level of dis-aggregation. What was needed for developing an index based on income was to get district level figures that would indicate the relative strength of districts in terms of per capita incomes drawn from estimates of share of districts to the state and NSDP. In the absence of such data across all the categories for the NSDP, the income index for the MPHDI relies on various surrogate measures. The income component

2 The methodology has been taken from 'Indirect Estimates of Fertility and Mortality at the District Level, 1981, Occasional Paper No. 4 of 1994, Office of Registrar General of India.
3 The CSO has issued instructions to States to calculate their District Domestic Products, along with suggested methodology. The methodology is drawn from the successful experience of assessing District Domestic Products by the States such as Kerala, Uttar Pradesh, and Rajasthan for the past two decades. Madhya Pradesh Government has now undertaken this task.

for the MPHDI should in no way be taken as calculations for the district domestic product. The district shares of NSDP, and the per capita derived from these estimates are neither a substitute nor a surrogate for district domestic product and per capita incomes from it, but only a comparable figure for districts for this report.

The State NSDP is calculated under the 16 categories, using different methods for each category. Much of the calculations and adjustments are made on the basis of estimates and data from CSO and other studies, and applied to State level data, to arrive at State level estimates. For example, in unregistered manufacturing estimates of value added for unregistered manufacturing for five digit level of NIC is derived from the 1984-85 survey of directory manufacturing establishments (DME), non-directory establishments (NDE), and Own Account Enterprises (OAE). The Industry wise estimates are adjusted by moving them backwards and forwards for the current years estimates. Since district level figures for DME and NDE are not available separately and or under five-digit levels, we attempted to estimate district shares of unregistered manufacturing by using data on Establishments and Own account enterprises available district wise (rural and urban) form the provisional results of the Economic Census 1990 (though the results of the survey are not officially released we have used the data only for our estimates and data from the 1999 Economic Census has not been released for our use). Similarly, calculations for district shares are somewhat related to or correspond to, wherever possible, the methodology of the NSDP.

For some categories like agriculture, industry, mining, forestry, banking and public administration fairly good district level indicators were available that were used to distribute the domestic products of these categories along districts. Using different indicators, share of districts (in percentage) to the specific domestic product was estimated, and this share was applied to the domestic product of that category to arrive at district level domestic product for that category.

For other categories, we used data for employment, own account enterprises and establishments, etc. to arrive at district level shares.

The methodology used for the major categories is given below. In all, 95.31 per cent of the net state domestic product for 2000-2001 was allocated to districts on these lines. The share of the 16 categories of NSDP is given in what follows.

1. Agriculture (including Animal Husbandry)

Data was not available for agriculture, horticulture and animal husbandry separately. To estimate district shares of agriculture (including livestock production), district wise production of all major produce such as cereals, pulses, oilseeds was taken and states average prices for these were applied to get the district production in price for agriculture. The agriculture domestic product was then divided along districts according to the share of each district to the total production (in price) in cereals, pulses and oilseeds.

2. Forestry and Logging

Incomes from Forestry and Logging were not used in 1995, due to lack of data. While there is no data available to estimates districts share in the domestic product of Forestry and Logging, we have used surrogates instead. Figures for area of districts under forests and forest revenue accruing to the State from forestry from the districts were used. The share of area under forests for every district to total area of State under forests was given two thirds weight and contribution of district to total revenue from forestry of the state was give one third weight. The combined weights arrived at were applied to forests contribution to State Domestic Product.

3. Fisheries

Data on district wise fish production, the value of fish, and other fishery related data was available from the fishery department, and the domestic product corresponds largely to these figures. Fisheries domestic product was allocated to districts accordingly.

4. Mining and Quarrying

Data on production and value of production as well as royalty and cess from all major and minor minerals in the state was available district wise. The share of each district to the total production value, and revenue from mining was taken and applied to the mining and quarrying domestic product of the state to arrive at district wise figures.

5. Manufacturing – Registered

In Small Scale Industries (SSI), we had data on district wise number of small units (SSI) and investments in them to date, and current employment. The Annual Survey of Industries gave district wise data on SSI units, employment, fixed investment and gross and net value added. For assessing contribution of SSI per district, we did a regression analysis between net value added (dependent variable) and units of SSI and fixed investment (independent variables). Using this equation, we arrived at an estimate of net value added by SSIs in each district for 1991-92, and the share of each district to this overall estimated SSI net value added was taken as the share of district SSIs to total SSIs contribution to the registered manufacturing domestic product.

Data was difficult for turnovers and outputs in the large and medium scale industries (LMI) sector. Available data gave us annual district wise large and medium scale industry investments, with current employment. We calculated the share of each district to LMI contribution to registered manufacturing domestic product by first adjusting the total LMI investment to the price levels of 1950-51, using the wholesale price index for industrial

products. This was used to measure the district wise investment in LMI. We estimated from field work, data available from surveys and regression analysis form available turnover and output data, the relative contribution of data of LMI units, employment and investment (adjusted) to total LMI sector. According to this estimate, LMI units was multiplied by a factor of 2, investment by 4 and employment by a factor of 1, and the weighted average of the total gave us a comparable column of data to calculate district wise shares of LMI. The share of each district in this table was taken to be the share of districts to LMIs share of registered manufacturing domestic product.

The SSI and LMI weighted share was taken together assigning a weight of 4 to LMI and 1 to SSI and share of districts to total states was applied to state domestic product in manufacturing – registered.

6. Manufacturing – Unregistered

For NSDP, unregistered manufacturing is calculated by using net value added from the 1984-85 survey on directly manufacturing establishments, non-directly establishments, and own account enterprises, which gives data for digit level under the NIC classification. District wise distribution of DME and NDE is not available and, data on establishments is not available below 1 digit NIC.

We took data for unregistered manufacturing from the Economic Census 1990 (provisional for Madhya Pradesh). The Economic Census gives district-wise number of own account enterprises (non-agriculture) and establishments in manufacturing. No data was available to get a share of OAE, and establishments to unregistered manufacturing. We added up the number of OAE to establishments for every district. The resultant sums were divided by the total number of OAE and establishments in the state, to get percentage shares for each district. These shares were assumed to correspond to district shares of the domestic product of manufacturing-unregistered. This share was applied to manufacturing unregistered domestic product to arrive at district shares.

7. Construction

In construction district level data was scarce, and wherever available was not consistent or available in all districts. In the absence of such figures we had to resort to the provisional data from the Economic Census 1990.

Taking figures of Own account enterprises in construction, they were added to the number of establishments in construction in each district. The sums were divided by the total number of OAE and establishments in construction in the state. The shares so arrived at were taken as its share in construction domestic product.

8. Electricity, Gas and Water

No satisfactory estimates could be developed due to absence of disaggregated data especially for gas and water, and this category was thus left out.

9. Railways

No data was available to estimate district wise share in Railways. The state level estimates are provided directly by the Central Statistical Organisation, and there was no basis available with us to allocate state income from Railways to districts. Data on trains, railway lines and stations were not available for most districts, disabling us form making any kind of assessment.

10. Transport by Other Means and Storage

The assumption here is that the value of Transport and Storage should correspond to the vehicles and the revenue from transport from a district. The average of share of each districts total vehicles to all vehicles in the state and vehicles on roads to total vehicles on road in the state was taken, and combined in equal weight with the total revenue contributed by the district to total revenue from transport in the State. The share so arrived at was multiplied to contribution of Transport by Other Means and Storage to NSDP. This section was not assessed in 1995.

11. Communication

No data was available to satisfactorily assess district share in communications.

12. Trade, Hotels and Restaurants

Domestic product from Trade, Hotels and Restaurants was distributed amongst the districts on the basis of Establishments and Own Account Enterprises in each district in Wholesale Trade, Retail Trade and Hotels and Restaurants, according to the Economic Survey 1990.

13. Banking and Insurance

Banking and Insurance domestic product was divided on the share on each district on the deposits and loans in each district over the last five years.

14. Real Estate, Ownership of Dwellings and Business Service

No satisfactory data was available for this category.

15. Public Administration

This was based upon estimates of expenditure on Public Administration by the State Government, and strengths of the employment of state administration employees in each district, based on actual salaries given to permanent and temporary employees. Since there was a high positive correlation between the two, share of salaries of government employees to total salaries of government employees in Madhya Pradesh was used. This share was applied to contribution of Public Administration to NSDP to get estimates for districts.

16. Other Services

Figures for employment under other services were taken from the 1991 Census. The employment figures were divided by the total employment in other services in Madhya Pradesh to arrive at district shares and these shares were applied to domestic product from other services to arrive at district figures.

1.1.3.2 Adjusted Incomes

By themselves, the estimates for per capita incomes does not give an idea of the distortions in distribution or the levels of poverty in the districts, and the depth of deprivation of the poor. UNDP for their income component of the Human Development Index, used the Aitkinson's formula to adjust incomes, based upon marginal utility of incomes. This adjustment reduces the impact of very high incomes in some districts, and makes district more comparable to each other to assess relative levels of achievement in incomes. However, one problem with this method was that it discounted incomes above a threshold level (minimum level) quite drastically. The UNDP HDI, now uses a different method of adjusting poverty. The same method has been used to discount incomes for our district human development indices.

Income is discounted by using the following formula :

$$\text{Income Index} = \frac{\log y - \log y_{min}}{\log y_{max} - \log y_{min}}$$

y: income of the district
y_{min}: Minimum income
y_{max}: Maximum target income

For a minimum income level and we calculated district wise poverty line by taking the poverty line developed by the Planning Commission based upon per capita monthly expenditure separately for rural and urban and adjusted to 1991–92 prices. To arrive at the district poverty line, we took a weighted average of rural and urban population with the adjusted rural and urban poverty line. The per capita incomes calculated for each district were divided by the resultant poverty line for each district, the product indicating the number of times district per capita was to the poverty line.

The three indices of development for health, education and income are then combined in a simple average to get the Human Development Index.

1.4 Calculation of HDI for Betul

Education

Index for literacy of Betul:

Target for literacy = 100.0 per cent
Minimum literacy = 0.0 per cent
Literacy of Betul = 66.9 per cent

The calculation is:

$$\frac{\text{66.9 (Literacy in Betul)} - \text{0.0 (Minimum Literacy)}}{\text{100 (Target Literacy)} - \text{0.0 (Minimum Literacy)}}$$

Therefore, Index for Betul in literacy = 0.669

Similarly, the enrolment rate of children in Betul aged 6-14 years -

Index for Enrolment of Betul:

Target for Enrolment = 100.0 per cent
Minimum Enrolment = 0.0 per cent
Enrolment in Betul = 93.9 per cent

The calculation is:

$$\frac{\text{66.9 (Enrolment in Betul)} - \text{0.0 (Minimum Enrolment)}}{\text{100 (Target Enrolment)} - \text{0.0 (Minimum Enrolment)}}$$

Therefore, Index for Betul in Enrolment = 0.939

These two are combined with a weightage of 1/3rd to enrolment and 2/3rd to Literacy giving the Education Development Index-

(2/3) x 0.669 + (1/3) x 0.939 = 0.446 + 0.313 = 0.759

Health

Index for Life expectancy of Betul :

Target for Life expectancy = 85 years
Minimum Life expectancy = 25 years
Life expectancy in Betul = 54.7 years

The calculation is :

$$\frac{\text{54.7 (Life Expectancy in Betul)} - \text{25.0 (Minimum Life expectancy)}}{\text{85.0 (Target Life Expectancy)} - \text{25.0 (Minimum Life Expectancy)}}$$

Therefore, Index for Betul in literacy = 0.494

Income

Target for Maximum per capita income = Rs 35,705 (the per capita income of Delhi)

Minimum per capita income = Rs 4,933/- (the per capita income for the income based poverty line)

The per capita income estimated for Betul for 1999/2000 was Rs 10,035/-

$$\text{Income Index} = \frac{\log 10035 - \log 4933}{\log 35705 - \log 4933} = \frac{4.001 - 3.693}{4.553 - 3.693} = 0.359$$

y: income of the district
y_{min}: Minimum income
y_{max}: Maximum target income

Human Development Index

Combining the three indices and taking their average we get

HDI of Betul (average of the three indices)
= (0.759 + 0.494 + 0. 359) = 0.537

2.0 Gender Development Index[4]

The Gender Related Development Index (GDI) uses the same variable as the HDI. The difference is that the GDI adjusts the average achievement of each district in life expectancy, education attainment and income in accordance with the degree of disparity in achievement between woman and man. It is based on the GDI developed by UNDP, used first in the Human Development Report in 1995.

For the gender sensitive adjustment, we use a weighting formula that express a moderate aversion to inequality, setting the weighting parameter ϵ equal to 2. This is the harmonic mean of the male and the female values.

The harmonic mean is calculated by taking the reciprocal of the population weighted arithmetic mean of the female and male achievement levels (which are themselves expressed in reciprocal form). Although this may sound complicated, the basic principle is straight forward. The harmonic mean will be less than the arithmetic mean to the degree that there is disparity between male and female achievement.

2.1 Educational Attainment

The variable for educational attainment is a composite index. It includes adult literacy, with a 2/3 weight, and gross combined primary, secondary and tertiary enrolment with a 1/3 weight. Each of these sub components is indexed separately. Both indices use a maximum value of 100 percent and a minimum value of 0 percent. The two indices are added together with the appropriate weights to form the composite index for educational attainment.

2.2 Longevity

The first step in the calculation of the GDI is to index the variable for life expectancy and education attainment. The estimates for life expectancy were calculated using Census of India 1991 fertility tables, as explained earlier in this chapter. Although the range for life expectancy is same for the women and men (60 years), the maximum and the minimum values are different. The value (or "fixed goal post") for male life expectancy is 82.5 years and the minimum value is 22.5 years. For female life expectancy the maximum value is 87.5 years and the minimum 22.5 years. The values for women and men are indexed accordingly.

2.3 Income

The calculation of the index for the income is more involved. In calculating the female and male shares of earned income, we used two pieces of information: the ratio of the average female wage to the average male wage and the female and male percentage shares of the economically active population.

The ratio of the average female wage to the average male wage is not available for the state or the districts. The ratio is assumed to be the average ratio for the agricultural sector as well. The ratio of the female to the males was assumed to average to 67% based upon some recently conducted poverty assessment surveys.

The ratio is crude proxy for gender income differentials in paid work. These approximations for wages need to be improved and assessed for each district, but due to lack of proper information for all districts, the same ratio was applied across the State. Apart from possible under estimating the male-female wage differential, the figure of 67 percent also does not account for the fact that women were more as casual labour and as marginal workers, working for less than 183 days a year. Men on the other hand work primarily as main workers (gainfully employed for 183 days or more per year). The ratio of 67 % also does not account for income disparities based on non-labour resources, such as land and physical capital. However, in the absence of better data we use this figure.

The next step in calculating gender disparity in income uses available information on the percentage share of men and women in economically active population. Because of the lack of data on employment of gender, this procedure make simplifying assumption that female employment and male employment are proportional to female and male participation in labour force. We have two choices here : one is to take the workforce participation ratio (WPR), which includes main and marginal workers, and the second is to take only main workers, where the ratio of male to female main workers is very high. We choose to take main and marginal workers, for the sake of corresponding to the general WPR terms used to

4 This note has been taken from the Technical Notes describing the methodology for Gender Development Index from the Human Development Report – 1995, Technical Notes 1. Computing gender-equity-sensitive indicators, UNDP

assess participation of people in the workforce. From the ratio of female to male wages we can derive two ratio: the ratio of the female wage to the overall average wage and the ratio of the male wage.

These total ratio are derived from the following definition of the total wage bill (WL):

$$WL = W_f L_f + M_m L_m$$

where W is the average wage and L is the total labour force, and the f subscript denote female, and m subscript denotes male.

Dividing the equation through by $W_m L$, we can solve for W/W_m

$$W/W_m = (W_f/W_m)\,(L_f/L) + (W_m/W_m)\,(L_m/L)$$

we take the reciprocal of this result to solve for W_m/W. We can now also solve for W_f/W

$$W_f/W = (W_f/W_m) / (W/W_m)$$

a rough estimate of the female share of income can then be derived by multiplying the ratio of the of the average female wage to the overall average wage of the female share of the economically active population. The male share of the income can be calculated in the same way or by subtracting female share from 1.

The third step in estimating disparities in the income is to calculate the female and the male share of the population. The adjusted per capita incomes are then discounted on the basis of the gender disparity in proportional income share. In using adjusted per capita incomes, we are already taking in account the diminishing marginal importance for human development of the additional income above the average world per capita income. Up to this point, the methodology is the same as that used for the human development index.

The discounting for the gender disparity is calculated as follows. We form two proportional income shares by dividing the female and the male shares of income by the female and male shares of the population if there were gender equality, each proportional share would be equal to 1. We have apply the gender-equity-sensitive indicators (GESI) methodology of (1- ϵ) averaging - with equal to 2 in this case-to the two proportional income shares to derive the "equally distributed proportional income share". The more gender inequality there is, the lower this ratio will be related to 1. We then multiply the adjusted per capita incomes by the equally distributed proportional income share to derive a measure of per capita income that, in effect, is now discounted for gender inequality. If there were no gender inequality, the ratio would be equal to 1 and per capita incomes would remain the same. As in the HDI, adjusted per capita income is proxy for access to basic resource necessary for human development. Finally, we index the adjusted per capita incomes for men and women with respect to maximum and minimum similar to those used in the HDI.

$$\text{Income Index} = \frac{\log y - \log y_{min}}{\log y_{max} - \log y_{min}}$$

y:	Income of the district
y_{min}:	Minimum income
y_{max}:	Maximum target income

The equally adjusted income index is given by :
[female population share x (adjusted female per capita)$^{-1}$ + male population share X (adjusted male per capita)$^{-1}$]$^{-1}$

The last step in the calculating the GDI is to add index for the income that we have just derived to the indices for life expectancy and the educational attainment and divide by 3. That gives each index a one third weight.

BALAGHAT

Basic Details on the District

Area (in sq. km)	9229
Total Inhabited Villages	1269
Total Habitations	3281
Forest Villages	89
Towns (Class I to IV) and Major Towns	6
Balaghat	
Crop Zone:	
Rice Zone	
Soil type:	
Red and Yellow Soil	
Agri Climatic Zone:	
Chhattisgarh Plains	
Schedule V Areas:	
All Blocks of Baihar Tehsil	

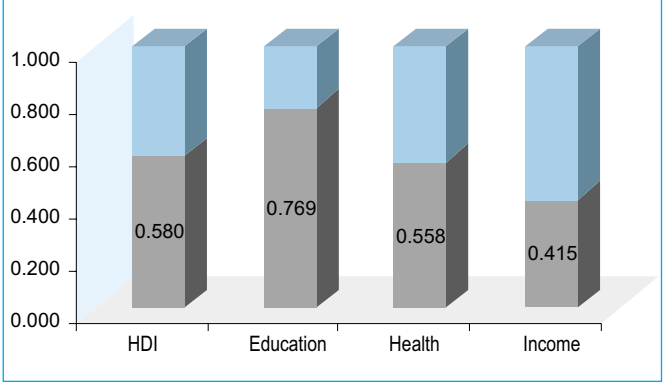
Demography

	1991	2001
Population	1365870	1445760
Share of Madhya Pradesh Population	2.81%	2.39%
Urban Population	9.5%	13.4%
Population of Scheduled Castes (SC)	8.3%	n.a.
Population of Scheduled Tribes (ST)	21.9%	n.a.
Density of Population (per sq. kms.)	148	157
Decadal Growth (%)	**1981-91**	**1991- 00**
All	19.00	5.85
Rural	n.a.	1.28
Urban	n.a.	49.4

Human Development Indices - 2002

Human Development Index (HDI)	0.580
Rank in Madhya Pradesh : HDI	15
Gender Related Development Index (GDI)	0.598
Rank in Madhya Pradesh : GDI	7

Graph on Human Development Index



Administrative Information

Janpad Panchayats	10
Gram Panchayats	665
Tehsils	7
Tribal Blocks	3
Legislative Assembly Seats	8

Health

	1981	1991
Infant Mortality Rate	133	110
	1991	2001
Life Expectancy (years)	55.0	58.5
	1976-81	**1984-90**
Crude Birth Rate	32.3	32.8

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	258.15	272.28
	1996	**2000**
FPS per lakh population	29.79	31

Gender

	1991	2001
Life Expectancy of Females at Birth	54.7	58.1
Child Sex Ratio	975	974
Girl Child Mortality (birth to age 1 year)	147	n.a.
Girl Child Mortality (up to age 5 years)	172	n.a.
Total Fertility Rate	4.2	n.a.
Gender Ratio : All	1002	1022
Rural	1009	1030
Urban	937	972
General non SC/ ST Gender Ratio	994	n.a.
SC Gender Ratio	1024	n.a.
ST Gender Ratio	1021	n.a.
Workers Participation Rate - Female	45.5%	46.2%
	2000	
Female Enrolment Rate (Ages 6-14)	92.3%	

Basic Amenities

Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1170
Percentage of villages not connected with pucca roads	46.2
	1991
Households without access to electricity, SDW and toilet facilities	40.82

Deprivation

Estimated Poverty Rate (1993-1994)	45.3%
Children as main workers (1991)	5.0%
Children as main and marginal workers (1991)	6.7%
Percentage of safe deliveries (1998-1999)	29.4
Percentage of children fully immunised (1998-1999)	90.4

Forests

	1999
Per Capita Forest Area (in hectares)	0.330
Annual Rate of Afforestation (%) (1993-1999)	-0.69
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra, Charota Seeds, Sal Seeds	

Education

	1991	2001
Literacy (%) : All	53.2%	68.8%
Male	67.6%	81.1%
Female	39.0%	57.0%
Rural	50.8%	66.6%
Urban	75.7%	82.6%
Access to Education	2000	
Enrolment Rate (Ages 6-14)		94.4%
Gross access ratio at primary level		100.0%
Habitations with Primary Schools		100.0%

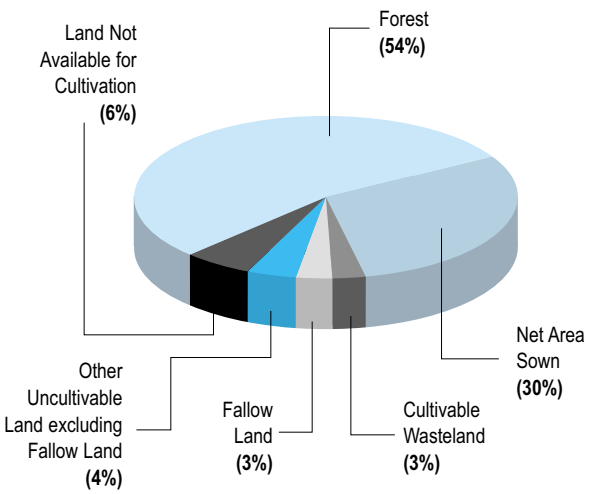
Employment

	1991	2001
Worker Participation Rate:		
All	49.8%	50.2%
Rural	51.8%	52.9%
Urban	30.2%	33.1%
Share of Primary Sector (%)	83.5%	n.a.
Share of Secondary Sector (%)	7.8%	n.a.
Share of Tertiary Sector (%)	8.62%	n.a.
Employment in Registered Industries (2000)		8194
Employment Rate of Growth (1991 to 2001)	n.a.	6.8%
Total Employment in Farm Sector (%)	82.1%	78.48
Rural Employment in Non Farm Sector (%)	14.0%	16.2%
Agriculture Labour (%)	27.5%	38.9%

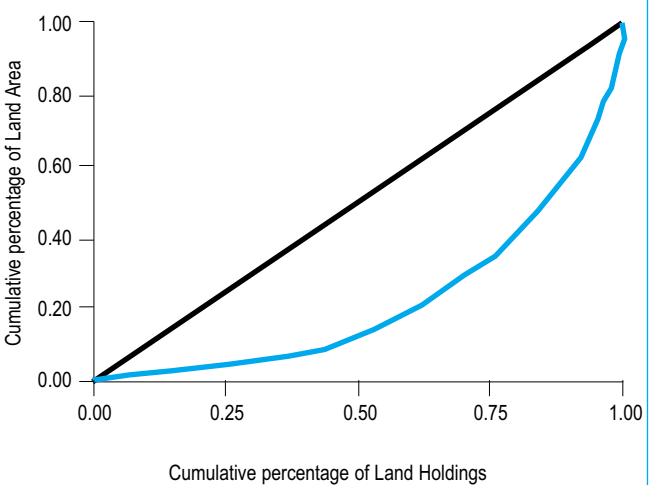
Infrastructure / Facilities

	2001
Middle Schools per lakh population	29.5
High Schools per lakh population	17.1
Rural Population per Primary Health Centre	35767
Population Serviced Sub Health Centre	4377
	2000
Road length per 100 sq. km. (1999)	30.5
Telephone per lakh population	712
Population per Post Office (1994-95)	6708
Registered establishments under Factories Act (1997)	258
Per capita consumption of electricity (non industrial) in kwh	120.8

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	275.4	272.8
Gross Cropped Area (in 000' ha.)	374.8	343.7
Double Cropped Area to Net Area Sown	36.1	26.0
Net Irrigated Area (in 000' ha.)	113.7	121.4
Gross Irrigated Area (in 000' ha.)	124.1	137.5
	1992-93	**1998-99**
Agriculture Intensity	127.8	126.0

Credit

	2000
Credit-Deposit Ratio	49.53
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	677.3
Crop lending per hectare of irrigated land	1893.6

Habitat

	2001	
Number of towns reporting slums	6	
Urban population residing in slums	2.24%	
Level of ground water development	8.67	
Average annual rainfall (in mm)	1623.20	
	1995	**2000**
Percentage area under wasteland	3.3%	6.54%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	243.5	259.7
Pulses Per Capita (Kg)	14.6	12.6
Oilseeds Per Capita (Kg)	7.2	6.8
Average Landholding (Ha)	1.5	1.35
Gross Irrigated Area ('000 Ha)		137.5
Fertiliser Consumption Per Hectare (Kg)	25.5	32.74
	1993	**1999**
Cropping Intensity	128	126.0

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	29.9%	29.5%
Gross Cropped Area to Total Area	40.6%	37.2%
Net Irrigated to Net Sown Area	41.3%	44.5%
Cropped Area under Food Grains	86.0%	90.9%
Yield of Food Grains (in kg. per hectare)	1096	1246
Per Capita Food Production (in kgs.)		272.3

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil*	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Waraseoni	392019	367262	24757	6.3%	71.2%	70.2%	85.6%	60.0%	1025	957	39.41	52.00
Balaghat	236484	145777	90707	38.4%	76.4%	69.6%	87.0%	66.6%	995	978	34.20	41.67
Baihar	336955	282121	54834	16.3%	59.3%	56.1%	75.0%	47.0%	1029	1011	38.73	50.73
Lanji	159621	159621	-	-	69.8%	69.8%	0.0%	57.5%	1037	967	44.74	52.75
Kirnapur	154394	154394	-	-	69.7%	69.7%	0.0%	57.8%	1027	963	40.46	53.71
Katangi	166287	142680	23607	14.2%	69.2%	67.4%	79.9%	57.6%	1023	943	36.02	51.73

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to Net Sown area	% Gross Irrigated area to total cropped area	Level of GW Development	Status of ground water
Balaghat	604.01	46.0%	59.0%	0.2	128	37.77	29.98	7.727	White
Lanji	764.25	46.8%	64.1%	0.25	137	50.09	36.57	13.593	White
Kirnapur	699.35	43.9%	60.8%	0.21	139	31.44	24.72	11.200	White
Baihar	782.64	35.7%	39.1%	0.41	109	6.95	10.13	3.210	White
Paraswara	563.28	40.8%	45.1%	0.31	110	11.02	11.58	5.816	White
Birsa	1139.83	30.0%	32.1%	0.27	107	15.09	15.98	2.947	White
Waraseoni	453.24	62.0%	85.4%	0.22	138	74.25	56.55	15.083	White
Khairlanji	457.59	59.9%	85.4%	0.2	143	59.84	46.06	9.705	White
Lalbarra	479.45	73.0%	98.8%	0.26	135	61.97	54.45	9.353	White
Katangi	564.03	50.0%	63.1%	0.21	126	59.89	54.48	10.537	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Balaghat	8.1	19.7	35.1	50.00	5132
Lanji	7.6	18.2	21.46	72.18	6138
Kirnapur	9.3	7.7	21.49	26.28	7516
Baihar	2.9	64.1	11.75	28.99	3404
Paraswara	3.7	52.1	14.02	20.63	3768
Birsa	4.1	49.1	11.84	88.13	7809
Waraseoni	12.1	12.5	32.21	59.21	6991
Khairlanji	11.6	7.8	38.68	77.78	4766
Lalbarra	7.5	13.8	16.68	82.57	12413
Katangi	11.6	13.5	39.89	60.98	4718

*Data for Tehsil Rithi not available separately as it was formed on 18.7.01

BARWANI

Basic Details on the District

Area (in sq. km)	5422
Total Inhabited Villages	714
Total Habitations	3932
Forest Villages	142
Towns (Class I to IV) and Major Towns	6
Sendhwa, Barwani	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Nimar Plain	
Schedule V Areas :	
Entire Barwani District	

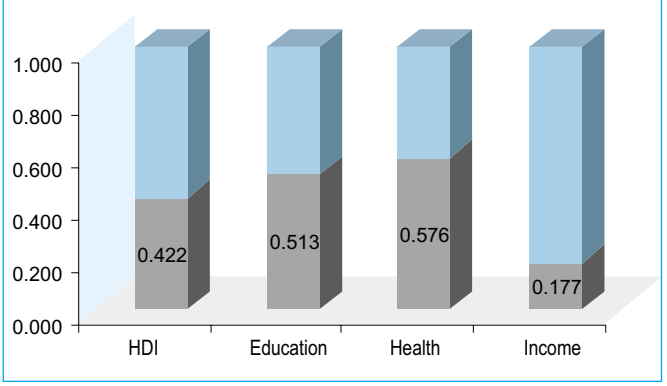
Demography

	1991	2001
Population	832422	1081039
Share of Madhya Pradesh Population	1.71%	1.79%
Urban Population	15.1%	14.6%
Population of Scheduled Castes (SC)	6.9%	n.a.
Population of Scheduled Tribes (ST)	64.8%	n.a.
Density of Population (per sq. kms.)	154	199
Decadal Growth (%)	**1981-91**	**1991- 00**
All	26.30	29.87
Rural	n.a.	30.65
Urban	n.a.	25.49

Human Development Indices - 2002

Human Development Index (HDI)	0.422
Rank in Madhya Pradesh : HDI	44
Gender Related Development Index (GDI)	0.488
Rank in Madhya Pradesh : GDI	37

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	383
Tehsils	6
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	n.a.	n.a.
	1991	**2001**
Life Expectancy (years)	55.4	59.6
	1976-81	**1984-90**
Crude Birth Rate	n.a.	n.a.

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	207.58	169.69
	1996	**2000**
FPS per lakh population	n.a.	19

Gender

	1991	2001
Life Expectancy of Females at Birth	55.9	57.4
Child Sex Ratio	982	970
Girl Child Mortality (birth to age 1 year)	n.a.	n.a.
Girl Child Mortality (up to age 5 years)	n.a.	n.a.
Total Fertility Rate	n.a.	n.a.
Gender Ratio : All	964	973
Rural	971	979
Urban	928	941
General non SC/ ST Gender Ratio	940	n.a.
SC Gender Ratio	964	n.a.
ST Gender Ratio	975	n.a.
Workers Participation Rate - Female	41.7%	43.6%
	2000	
Female Enrolment Rate (Ages 6-14)	67.2%	

Basic Amenities

	2000
Habitations with SDW facility	96.1%
Habitations without 40 lpd water availability	5.4%
Number of villages electrified	637
Percentage of villages not connected with pucca roads	58.3
	1991
Households without access to electricity, SDW and toilet facilities	n.a.

Deprivation

Estimated Poverty Rate (1993-1994)	n.a.
Children as main workers (1991)	n.a.
Children as main and marginal workers (1991)	n.a.
Percentage of safe deliveries (1998-1999)	n.a.
Percentage of children fully immunised (1998-1999)	n.a.

Forests

	1999
Per Capita Forest Area (in hectares)	n.a.
Annual Rate of Afforestation (%) (1993-1999)	n.a.
Major Non-Timber Forest Produce :	
Tendu Leaves, Salai Gum	

Education

	1991	2001
Literacy (%) : All	28.1%	41.3%
Male	36.8%	51.1%
Female	19.0%	31.4%
Rural	21.0%	35.1%
Urban	64.5%	74.9%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)		71.3%
Gross access ratio at primary level		100.0%
Habitations with Primary Schools		100.0%

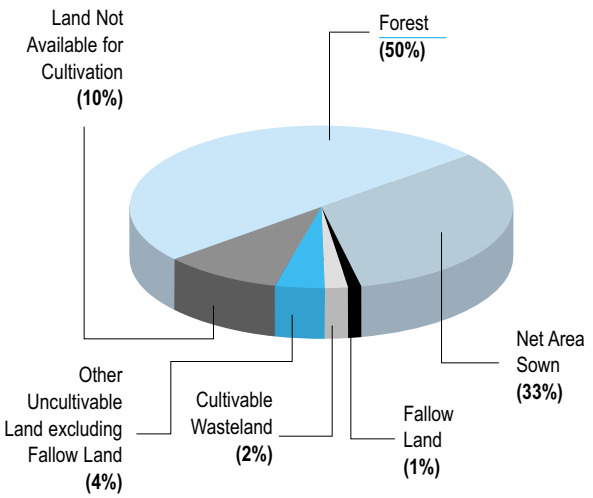
Employment

	1991	2001
Worker Participation Rate :		
All	47.5%	48.4%
Rural	50.2%	50.9%
Urban	32.1%	33.8%
Share of Primary Sector (%)	86.8%	n.a.
Share of Secondary Sector (%)	3.9%	n.a.
Share of Tertiary Sector (%)	9.30%	n.a.
Employment in Registered Industries (2000)		n.a.
Employment Rate of Growth (1991 to 2001)	n.a.	32.4%
Total Employment in Farm Sector (%)	86.8%	84.58
Rural Employment in Non Farm Sector (%)	6.1%	8.7%
Agriculture Labour (%)	23.3%	27.9%

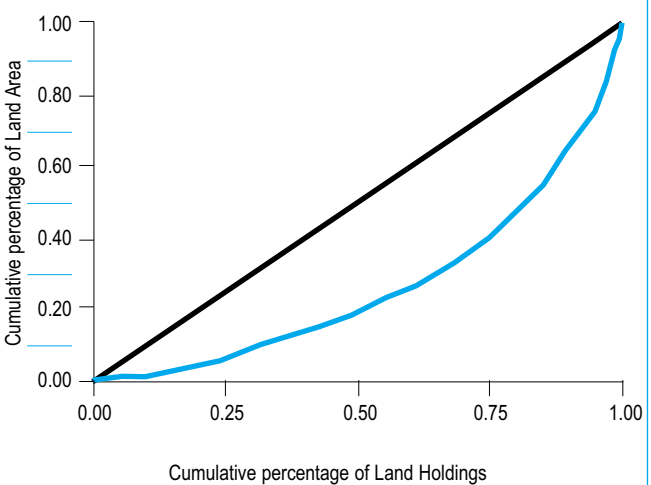
Infrastructure / Facilities

	2001
Middle Schools per lakh population	25.6
High Schools per lakh population	6.4
Rural Population per Primary Health Centre	29776
Population Serviced Sub Health Centre	3846
	2000
Road length per 100 sq. km. (1999)	25.2
Telephone per lakh population	749
Population per Post Office (1994-95)	n.a.
Registered establishments under Factories Act (1997)	n.a.
Per capita consumption of electricity (non industrial) in kwh	219.1

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	n.a.	233.4
Gross Cropped Area (in 000' ha.)	n.a.	278.7
Double Cropped Area to Net Area Sown	n.a.	19.4
Net Irrigated Area (in 000' ha.)	n.a.	78.0
Gross Irrigated Area (in 000' ha.)	n.a.	78.0
	1992-93	**1998-99**
Agriculture Intensity	n.a.	119.4

Credit

	2000
Credit-Deposit Ratio	61.73
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	n.a.
Crop lending per hectare of irrigated land	n.a.

Habitat

	2001	
Number of towns reporting slums	6	
Urban population residing in slums	0.00%	
Level of ground water development	47.98	
Average annual rainfall (in mm)	844.00	
	1995	**2000**
Percentage area under wasteland	n.a.	n.a.

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	n.a.	155.4
Pulses Per Capita (Kg)	n.a.	14.3
Oilseeds Per Capita (Kg)	n.a.	31.8
Average Landholding (Ha)	n.a.	n.a.
Gross Irrigated Area ('000 Ha)		78.0
Fertiliser Consumption Per Hectare (Kg)	n.a	54.78
	1993	**1999**
Cropping Intensity	n.a.	119.4

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	Included in West Nimar	33.3%
Gross Cropped Area to Total Area	n.a.	39.8%
Net Irrigated to Net Sown Area	n.a.	33.4%
Cropped Area under Food Grains	n.a.	60.2%
Yield of Food Grains (in kg. per hectare)	n.a.	1038
Per Capita Food Production (in kgs.)		169.7

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Barwani	277688	234466	43222	15.6%	34.7%	25.7%	77.9%	26.8%	965	968	26.40	45.85
Thikri	136341	113451	22890	16.8%	62.9%	61.3%	70.6%	49.7%	964	955	45.49	47.60
Rajpur	171026	153113	17913	10.5%	43.0%	39.5%	70.8%	31.9%	979	974	28.43	48.72
Pansemal	129044	104034	25010	19.4%	49.1%	42.2%	75.0%	36.8%	984	969	39.23	53.87
Sendhwa	281824	232883	48941	17.4%	32.1%	22.0%	75.5%	23.7%	973	971	18.36	48.67
Newali	85116	85116	-	-	41.0%	41.0%	0.0%	30.4%	990	979	16.01	48.05

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Barwani	447.01	64.2%	76.3%	0.33	119	37.07	31.21	48.679	White
Pati	234.93	80.7%	90.8%	0.3	113	13.6	12.08	39.113	White
Thikri	560.47	62.9%	73.7%	0.38	117	40.87	34.89	81.446	Grey
Rajpur	748.98	61.9%	72.5%	0.39	117	30.76	26.25	34.700	White
Pansemal	255.39	94.6%	122.0%	0.35	129	40.05	31.06	116.020	Over Exploited
Sendhwa	769.2	73.0%	79.8%	0.36	109	10.13	9.27	27.559	White
Newali	316.97	71.4%	79.8%	0.36	112	7.4	6.62	20.541	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Barwani	8.34	66.5	43.18	38.46	3913
Pati	3.5	86.85	73.64	59.79	12552
Thikri	12.71	40.73	33.72	24.47	5745
Rajpur	5.78	73.85	27.9	74.49	3850
Pansemal	5.5	71.04	54.82	25	5720
Sendhwa	4.05	85.85	23.4	25.74	7429
Newali	5.6	85.78	9.46	21.13	5639

B E T U L

Basic Details on the District

Area (in sq. km)	10043
Total Inhabited Villages	1328
Total Habitations	2087
Forest Villages	111
Towns (Class I to IV) and Major Towns	6
Sarni, Betul	
Crop Zone :	
Wheat Jowar	
Soil type :	
Shallow Black (Medium)	
Agri Climatic Zone :	
Satpura Plateau	
Schedule V Areas :	
All Blocks of Shahpur and Bhainsdehi Tehsils and all Blocks of Betul Tehsil except Betul CD Block	

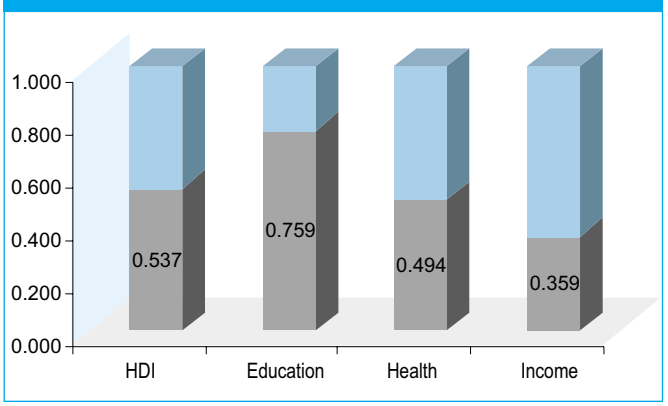
Demography

	1991	2001
Population	1181501	1394421
Share of Madhya Pradesh Population	2.43%	2.31%
Urban Population	18.6%	18.6%
Population of Scheduled Castes (SC)	10.8%	n.a.
Population of Scheduled Tribes (ST)	37.5%	n.a.
Density of Population (per sq. kms.)	118	139
Decadal Growth (%)	**1981-91**	**1991- 00**
All	27.68	18.02
Rural	n.a.	18.09
Urban	n.a.	17.7

Human Development Indices - 2002

Human Development Index (HDI)	0.537
Rank in Madhya Pradesh : HDI	30
Gender Related Development Index (GDI)	0.558
Rank in Madhya Pradesh : GDI	20

Graph on Human Development Index



Administrative Information

Janpad Panchayats	10
Gram Panchayats	555
Tehsils	5
Tribal Blocks	7
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	148	128
	1991	**2001**
Life Expectancy (years)	52.0	54.7
	1976-81	**1984-90**
Crude Birth Rate	35.0	39.0

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	193.57	209.72
	1996	**2000**
FPS per lakh population	38.68	38

Gender

	1991	2001
Life Expectancy of Females at Birth	51.8	53.8
Child Sex Ratio	980	968
Girl Child Mortality (birth to age 1 year)	141	n.a.
Girl Child Mortality (up to age 5 years)	181	n.a.
Total Fertility Rate	5.6	n.a.
Gender Ratio : All	966	965
Rural	981	977
Urban	903	917
General non SC/ ST Gender Ratio	945	n.a.
SC Gender Ratio	950	n.a.
ST Gender Ratio	1002	n.a.
Workers Participation Rate - Female	39.8%	37.0%
	2000	
Female Enrolment Rate (Ages 6-14)	91.9%	

Basic Amenities

	2000
Habitations with SDW facility	99.5%
Habitations without 40 lpd water availability	0.9%
Number of villages electrified	1320
Percentage of villages not connected with pucca roads	72.9
	1991
Households without access to electricity, SDW and toilet facilities	23.99

Deprivation

Estimated Poverty Rate (1993-1994)	65.6%
Children as main workers (1991)	11.2%
Children as main and marginal workers (1991)	13.8%
Percentage of safe deliveries (1998-1999)	34.2
Percentage of children fully immunised (1998-1999)	78.9

Forests

	1999
Per Capita Forest Area (in hectares)	0.267
Annual Rate of Afforestation (%) (1993-1999)	0.19
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra	

Education

	1991	2001
Literacy (%) : All	45.9%	66.9%
Male	57.4%	77.3%
Female	33.9%	56.0%
Rural	38.8%	62.5%
Urban	76.3%	85.0%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)		93.9%
Gross access ratio at primary level		100.0%
Habitations with Primary Schools		100.0%

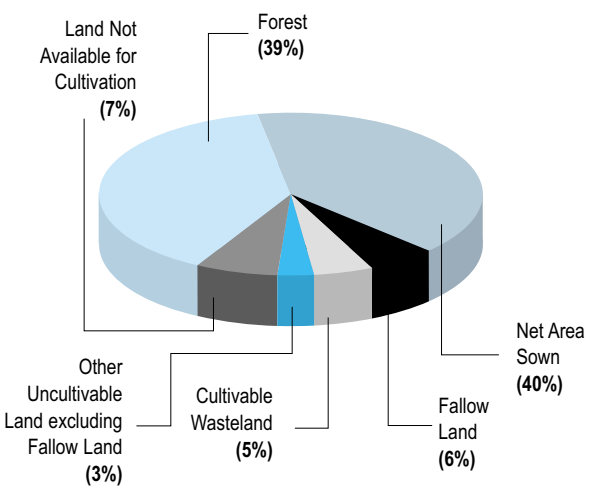
Employment

	1991	2001
Worker Participation Rate :		
All	46.7%	44.2%
Rural	51.2%	48.0%
Urban	27.0%	27.2%
Share of Primary Sector (%)	84.8%	n.a.
Share of Secondary Sector (%)	4.7%	n.a.
Share of Tertiary Sector (%)	10.48%	n.a.
Employment in Registered Industries (2000)		6646
Employment Rate of Growth (1991 to 2001)	n.a.	11.7%
Total Employment in Farm Sector (%)	82.5%	79.53
Rural Employment in Non Farm Sector (%)	9.0%	11.7%
Agriculture Labour (%)	24.2%	37.6%

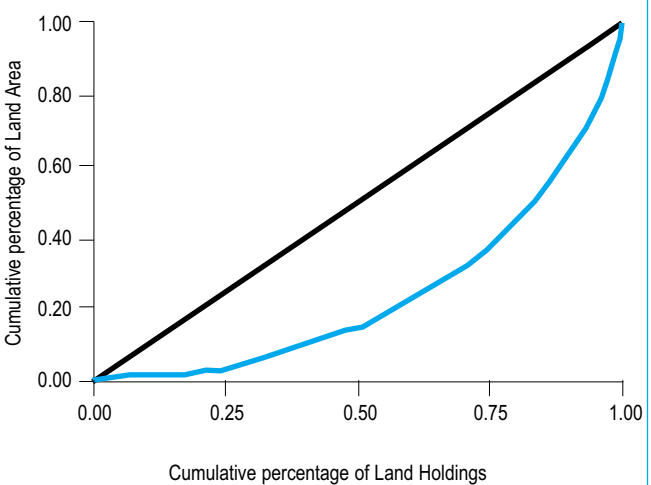
Infrastructure / Facilities

	2001
Middle Schools per lakh population	40.9
High Schools per lakh population	16.6
Rural Population per Primary Health Centre	33398
Population Serviced Sub Health Centre	4190
	2000
Road length per 100 sq. km. (1999)	17.1
Telephone per lakh population	965
Population per Post Office (1994-95)	5986
Registered establishments under Factories Act (1997)	101
Per capita consumption of electricity (non industrial) in kwh	213.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	388.2	407.1
Gross Cropped Area (in 000' ha.)	432.9	531.9
Double Cropped Area to Net Area Sown	11.5	30.6
Net Irrigated Area (in 000' ha.)	42.9	104.5
Gross Irrigated Area (in 000' ha.)	42.9	104.5
	1992-93	**1998-99**
Agriculture Intensity	119.0	130.6

Credit

	2000
Credit-Deposit Ratio	38.81
Commercial Banks (per 1000 population)	0.05
Crop lending per hectare of cultivated land	464.3
Crop lending per hectare of irrigated land	2492.2

Habitat

	2001	
Number of towns reporting slums	6	
Urban population residing in slums	46.54%	
Level of ground water development	28.38	
Average annual rainfall (in mm)	1084.00	
	1995	**2000**
Percentage area under wasteland	8.1%	12.13%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	167.8	185.0
Pulses Per Capita (Kg)	25.8	24.8
Oilseeds Per Capita (Kg)	118.4	66.8
Average Landholding (Ha)	3.4	2.89
Gross Irrigated Area ('000 Ha)		104.5
Fertiliser Consumption Per Hectare (Kg)	20.2	25.52
	1993	**1999**
Cropping Intensity	119	130.6

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	38.5%	40.4%
Gross Cropped Area to Total Area	43.0%	52.8%
Net Irrigated to Net Sown Area	11.1%	25.7%
Cropped Area under Food Grains	86.7%	59.1%
Yield of Food Grains (in kg. per hectare)	598	901
Per Capita Food Production (in kgs.)		209.7

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Bhainsdehi	331403	315647	15756	4.8%	58.9%	57.7%	81.3%	47.1%	973	968	41.87	49.61
Betul	539389	351244	188145	34.9%	69.0%	59.9%	84.8%	58.9%	954	954	33.52	39.73
Multai	266125	244697	21428	8.1%	76.2%	75.4%	84.9%	66.2%	976	989	37.36	46.54
Shahpur	95904	91907	3997	4.2%	50.5%	48.6%	90.1%	36.0%	975	990	40.32	45.74
Amla	161600	132047	29553	18.3%	69.6%	65.3%	87.5%	59.0%	967	971	38.53	43.01

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Betul	955.34	58.2%	90.7%	0.45	156	35.69	22.89	38.57	White
Chicholi	408.89	52.6%	64.8%	0.38	123	21.6	17.55	38.352	White
Ghoda Dongri	672.58	44.7%	51.1%	0.3	114	17.78	15.54	13.01	White
Shahpur	527.7	46.3%	50.7%	0.33	110	10.19	9.3	21.525	White
Multai	803.78	71.8%	90.4%	0.51	126	20.78	16.49	39.647	White
Prabhat Pattnam	850.82	62.1%	77.5%	0.48	125	19.68	15.76	39.849	White
Amla	660.77	61.4%	83.4%	0.36	136	38.27	28.19	37.027	White
Bhainsdehi	748.23	65.9%	77.5%	0.58	118	13.98	11.89	14.886	White
Athner	675.43	65.7%	75.6%	0.56	115	12.07	10.49	26.287	White
Bhimpura	890.55	43.1%	48.8%	0.43	113	8.08	7.13	10.124	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Betul	9.16	38.39	20.83	33.86	4214
Chicholi	5.83	60.88	38.15	17.95	4360
Ghoda Dongri	7.37	55.41	7.43	8	6494
Shahpur	8.31	61.02	18.38	6.37	3159
Multai	10.99	11.22	25.38	63.36	3300
Prabhat Pattnam	16.05	23.66	17.75	103.45	2663
Amla	14.4	27.21	13.62	25.5	3973
Bhainsdehi	8.73	58.52	20.45	22.14	3820
Athner	8.05	41.58	11.7	17.35	4655
Bhimpura	4.34	83.79	18.49	11.84	5631

BHIND

Basic Details on the District

Area (in sq. km)	4459
Total Inhabited Villages	877
Total Habitations	1878
Forest Villages	0
Towns (Class I to IV) and Major Towns	11
Bhind, Gohad	
Crop Zone :	
Wheat Jowar	
Soil type :	
Alluvial (Light)	
Agri Climatic Zone :	
Gird Region	
Schedule V Areas :	
No Schedule V area	

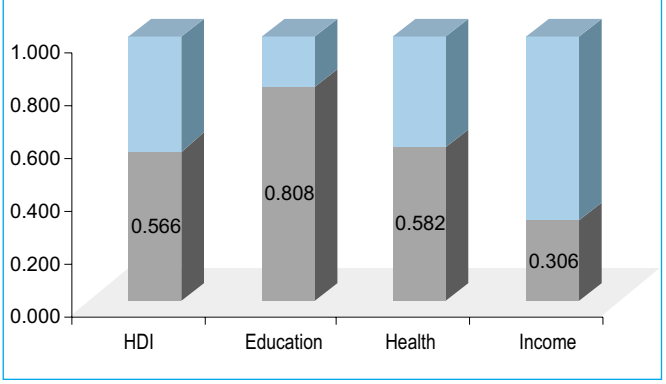
Demography

	1991	2001
Population	1219000	1426951
Share of Madhya Pradesh Population	2.51%	2.36%
Urban Population	20.6%	23.7%
Population of Scheduled Castes (SC)	21.3%	n.a.
Population of Scheduled Tribes (ST)	0.3%	n.a.
Density of Population (per sq. kms.)	273	320
Decadal Growth (%)	**1981-91**	**1991- 00**
All	25.18	17.06
Rural	n.a.	12.5
Urban	n.a.	34.65

Human Development Indices - 2002

Human Development Index (HDI)	0.566
Rank in Madhya Pradesh : HDI	19
Gender Related Development Index (GDI)	0.512
Rank in Madhya Pradesh : GDI	33

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	447
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	139	102
	1991	2001
Life Expectancy (years)	55.0	59.9
	1976-81	**1984-90**
Crude Birth Rate	35.8	39.0

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	318.70	223.57
	1996	2000
FPS per lakh population	27.92	28

Gender

	1991	2001
Life Expectancy of Females at Birth	50.8	54.0
Child Sex Ratio	850	829
Girl Child Mortality (birth to age 1 year)	113	n.a.
Girl Child Mortality (up to age 5 years)	185	n.a.
Total Fertility Rate	5.8	n.a.
Gender Ratio : All	816	829
Rural	813	825
Urban	827	842
General non SC/ ST Gender Ratio	821	n.a.
SC Gender Ratio	796	n.a.
ST Gender Ratio	816	n.a.
Workers Participation Rate - Female	4.2%	22.8%
	2000	
Female Enrolment Rate (Ages 6-14)	103.8%	

Basic Amenities

	2000
Habitations with SDW facility	98.3%
Habitations without 40 lpd water availability	1.8%
Number of villages electrified	872
Percentage of villages not connected with pucca roads	43.3
	1991
Households without access to electricity, SDW and toilet facilities	45.81

Deprivation

Estimated Poverty Rate (1993-1994)	21.5%
Children as main workers (1991)	1.5%
Children as main and marginal workers (1991)	1.7%
Percentage of safe deliveries (1998-1999)	18.9
Percentage of children fully immunised (1998-1999)	53.8

Forests

	1999
Per Capita Forest Area (in hectares)	0.006
Annual Rate of Afforestation (%) (1993-1999)	1.83
Major Non-Timber Forest Produce :	
None	

Education

	1991	2001
Literacy (%) : All	49.2%	71.2%
Male	66.2%	84.1%
Female	28.2%	55.7%
Rural	45.7%	69.7%
Urban	62.7%	76.1%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	100.0%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

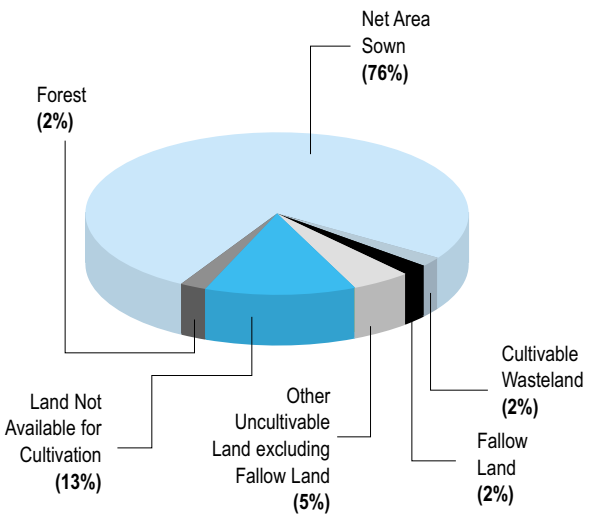
Employment

	1991	2001
Worker Participation Rate :		
All	27.4%	36.8%
Rural	28.1%	40.1%
Urban	24.6%	26.3%
Share of Primary Sector (%)	79.9%	n.a.
Share of Secondary Sector (%)	4.3%	n.a.
Share of Tertiary Sector (%)	15.77%	n.a.
Employment in Registered Industries (2000)		18889
Employment Rate of Growth (1991 to 2001)	n.a.	57.5%
Total Employment in Farm Sector (%)	79.8%	72.37
Rural Employment in Non Farm Sector (%)	10.8%	19.0%
Agriculture Labour (%)	12.6%	18.7%

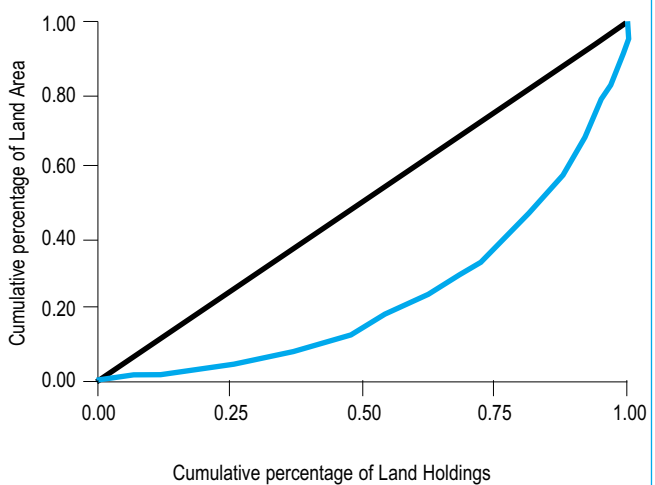
Infrastructure / Facilities

	2001
Middle Schools per lakh population	41.4
High Schools per lakh population	15.4
Rural Population per Primary Health Centre	57305
Population Serviced Sub Health Centre	5950
	2000
Road length per 100 sq. km. (1999)	29.6
Telephone per lakh population	607
Population per Post Office (1994-95)	5276
Registered establishments under Factories Act (1997)	267
Per capita consumption of electricity (non industrial) in kwh	56.3

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	336.1	337.3
Gross Cropped Area (in 000' ha.)	355.2	366.7
Double Cropped Area to Net Area Sown	5.7	8.7
Net Irrigated Area (in 000' ha.)	101.2	125.4
Gross Irrigated Area (in 000' ha.)	112.9	137.9
	1992-93	**1998-99**
Agriculture Intensity	108.5	108.7

Credit

	2000
Credit-Deposit Ratio	44.4
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	1121.9
Crop lending per hectare of irrigated land	3227.2

Habitat

	2001	
Number of towns reporting slums	11	
Urban population residing in slums	11.24%	
Level of ground water development	21.35	
Average annual rainfall (in mm)	668.00	
	1995	**2000**
Percentage area under wasteland	26.8%	29.21%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	249.3	175.1
Pulses Per Capita (Kg)	69.4	48.5
Oilseeds Per Capita (Kg)	43.7	93.6
Average Landholding (Ha)	2.6	2.19
Gross Irrigated Area ('000 Ha)		137.9
Fertiliser Consumption Per Hectare (Kg)	37.8	64.21
	1993	**1999**
Cropping Intensity	108	108.7

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	75.5%	75.8%
Gross Cropped Area to Total Area	79.8%	82.4%
Net Irrigated to Net Sown Area	30.1%	37.2%
Cropped Area under Food Grains	87.1%	59.1%
Yield of Food Grains (in kg. per hectare)	466	1426
Per Capita Food Production (in kgs.)		223.6

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Bhind	437481	262434	175047	40.0%	76.0%	73.2%	79.9%	62.8%	838	820	13.42	32.57
Gohad	264190	201371	62819	23.8%	65.1%	64.3%	67.8%	46.0%	803	791	21.75	32.95
Mehgaon	275988	243997	31991	11.6%	70.8%	70.2%	75.0%	54.4%	822	811	20.93	42.51
Lahar	185089	131592	53497	28.9%	69.0%	67.3%	73.2%	52.2%	830	864	20.02	40.93
Ron	63356	63356	-	-	67.8%	67.8%	0.0%	52.7%	844	872	17.08	42.96
Mihona	81523	66724	14799	18.2%	71.0%	69.6%	77.3%	57.2%	845	875	27.31	41.29
Ater	119324	119324	-	-	73.6%	73.6%	0.0%	59.4%	851	879	15.49	35.20

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Bhind	626.48	71.8%	79.4%	0.27	111	34.65	31.37	23.700	White
Ater	684.84	68.3%	75.3%	0.26	110	50.17	45.69	26.790	White
Mehgaon	925.14	83.1%	88.4%	0.37	106	28.72	29.59	21.203	White
Lahar	611.83	87.6%	91.4%	0.37	104	36.64	35.86	25.611	White
Mihona	405.83	77.1%	79.3%	0.32	103	20.75	20.17	53.804	White
Gohad	992.7	83.6%	93.8%	0.47	112	30.64	37.07	8.208	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Bhind	20.45	0	29.05	49.00	2884
Ater	16.98	0.06	28.62	43.35	3905
Mehgaon	20.05	0.04	21.83	47.94	4049
Lahar	25.69	0.04	28.44	47.59	3195
Mihona	22.59	0	23.16	40.58	
Gohad	28.47	0.65	26.9	56.41	4106

BHOPAL

Basic Details on the District

Area (in sq. km)	2772
Total Inhabited Villages	511
Total Habitations	651
Forest Villages	1
Towns (Class I to IV) and Major Towns	2
Bhopal	
Crop Zone :	
Wheat Zone	
Soil type :	
Medium Black and Deep Black (Medium/ Heavy)	
Agri Climatic Zone :	
Vindhya Plateau	
Schedule V Areas :	
No Schedule V area	

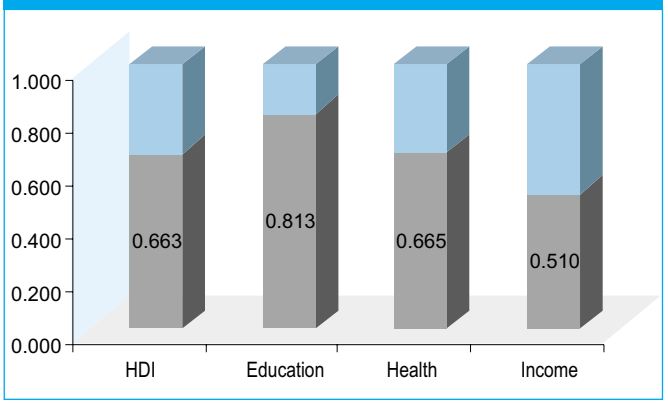
Demography

	1991	2001
Population	1351479	1836784
Share of Madhya Pradesh Population	2.78%	3.04%
Urban Population	80.0%	80.5%
Population of Scheduled Castes (SC)	13.8%	n.a.
Population of Scheduled Tribes (ST)	3.0%	n.a.
Density of Population (per sq. kms.)	488	663
Decadal Growth (%)	**1981-91**	**1991- 00**
All	51.05	35.91
Rural	n.a.	32.14
Urban	n.a.	36.85

Human Development Indices - 2002

Human Development Index (HDI)	0.663
Rank in Madhya Pradesh : HDI	2
Gender Related Development Index (GDI)	0.547
Rank in Madhya Pradesh : GDI	24

Graph on Human Development Index



Administrative Information

Janpad Panchayats	2
Gram Panchayats	194
Tehsils	2
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	91	70
	1991	2001
Life Expectancy (years)	62.0	64.9
	1976-81	**1984-90**
Crude Birth Rate	n.a.	32.5

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	108.99	103.85
	1996	**2000**
FPS per lakh population	21.19	20

Gender

	1991	2001
Life Expectancy of Females at Birth	62.3	64.7
Child Sex Ratio	938	931
Girl Child Mortality (birth to age 1 year)	98	n.a.
Girl Child Mortality (up to age 5 years)	107	n.a.
Total Fertility Rate	3.8	n.a.
Gender Ratio : All	889	896
Rural	873	887
Urban	894	898
General non SC/ ST Gender Ratio	889	n.a.
SC Gender Ratio	895	n.a.
ST Gender Ratio	887	n.a.
Workers Participation Rate - Female	13.5%	14.7%
	2000	
Female Enrolment Rate (Ages 6-14)	94.0%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	511
Percentage of villages not connected with pucca roads	50.0
	1991
Households without access to electricity, SDW and toilet facilities	4.45

Deprivation

Estimated Poverty Rate (1993-1994)	36.5%
Children as main workers (1991)	1.8%
Children as main and marginal workers (1991)	2.5%
Percentage of safe deliveries (1998-1999)	69.7
Percentage of children fully immunised (1998-1999)	78.5

Forests

	1999
Per Capita Forest Area (in hectares)	0.016
Annual Rate of Afforestation (%) (1993-1999)	3.38
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	64.3%	75.1%
Male	73.1%	82.6%
Female	54.2%	66.7%
Rural	33.1%	53.3%
Urban	71.5%	80.0%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	92.4%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

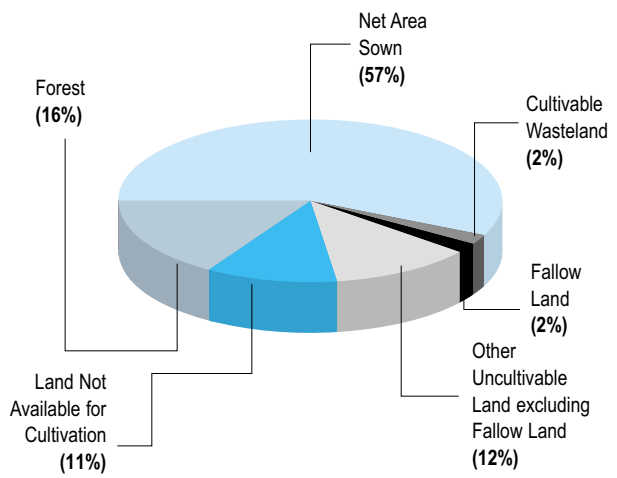
Employment

	1991	2001
Worker Participation Rate :		
All	31.8%	32.0%
Rural	42.7%	42.2%
Urban	29.1%	29.6%
Share of Primary Sector (%)	24.9%	n.a.
Share of Secondary Sector (%)	24.5%	n.a.
Share of Tertiary Sector (%)	50.65%	n.a.
Employment in Registered Industries (2000)		32175
Employment Rate of Growth (1991 to 2001)	n.a.	37.0%
Total Employment in Farm Sector (%)	24.5%	22.99
Rural Employment in Non Farm Sector (%)	13.5%	16.3%
Agriculture Labour (%)	9.2%	11.0%

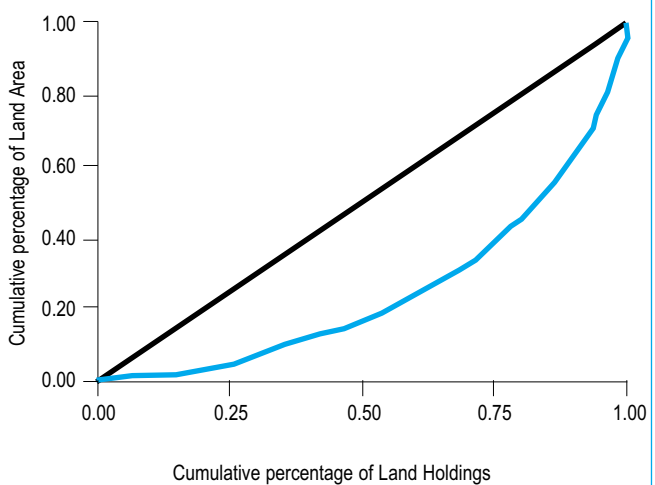
Infrastructure / Facilities

	2001
Middle Schools per lakh population	27.8
High Schools per lakh population	26.5
Rural Population per Primary Health Centre	35767
Population Serviced Sub Health Centre	5677
	2000
Road length per 100 sq. km. (1999)	31.0
Telephone per lakh population	5843
Population per Post Office (1994-95)	12508
Registered establishments under Factories Act (1997)	528
Per capita consumption of electricity (non industrial) in kwh	310.7

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	150.2	158.7
Gross Cropped Area (in 000' ha.)	154.6	226.1
Double Cropped Area to Net Area Sown	2.9	42.5
Net Irrigated Area (in 000' ha.)	12.9	71.9
Gross Irrigated Area (in 000' ha.)	12.9	71.9
	1992-93	**1998-99**
Agriculture Intensity	122.5	142.5

Credit

	2000
Credit-Deposit Ratio	52.13
Commercial Banks (per 1000 population)	0.09
Crop lending per hectare of cultivated land	2834.6
Crop lending per hectare of irrigated land	9237.2

Habitat

	2001	
Number of towns reporting slums	2	
Urban population residing in slums	8.54%	
Level of ground water development	63.28	
Average annual rainfall (in mm)	1079.00	
	1995	**2000**
Percentage area under wasteland	22.7%	24.67%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	86.6	78.8
Pulses Per Capita (Kg)	22.3	25.0
Oilseeds Per Capita (Kg)	26.5	34.8
Average Landholding (Ha)	3.8	3.30
Gross Irrigated Area ('000 Ha)		71.9
Fertiliser Consumption Per Hectare (Kg)	32.3	63.85
	1993	**1999**
Cropping Intensity	122	142.5

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	55.5%	57.1%
Gross Cropped Area to Total Area	57.1%	81.4%
Net Irrigated to Net Sown Area	8.6%	45.3%
Cropped Area under Food Grains	81.9%	57.7%
Yield of Food Grains (in kg. per hectare)	794	1375
Per Capita Food Production (in kgs.)		103.9

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Huzur	1623050	168220	1454830	89.6%	78.0%	58.3%	80.2%	70.6%	898	936	5.95	30.87
Berasia	213734	189445	24289	11.4%	51.3%	48.9%	69.2%	34.8%	881	903	40.14	40.97

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Phanda	997.78	73.9%	109.2%	0.6	148	14.49	13.21	69.547	Grey
Berasia	1404.99	60.2%	78.8%	0.57	131	27.97	21.38	56.847	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Phanda	19.51	6.19	22.65	14.22	1152
Berasia	23.5	2.6	14.95	14.04	3878

CHHATARPUR

Basic Details on the District

Area (in sq. km)	8687
Total Inhabited Villages	1076
Total Habitations	1594
Forest Villages	0
Towns (Class I to IV) and Major Towns	14
Chhatarpur	
Crop Zone :	
Wheat Jowar	
Soil type :	
Mixed Red and Black (Medium)	
Agri Climatic Zone :	
Bundelkhand Region	
Schedule V Areas :	
No Schedule V area	

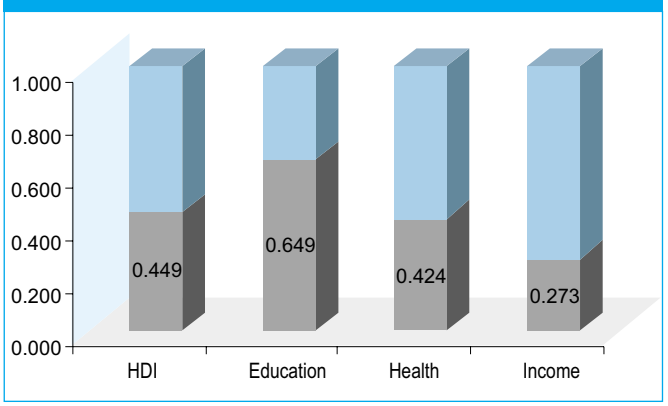
Demography

	1991	2001
Population	1158076	1474633
Share of Madhya Pradesh Population	2.38%	2.44%
Urban Population	19.3%	22.0%
Population of Scheduled Castes (SC)	23.7%	n.a.
Population of Scheduled Tribes (ST)	3.8%	n.a.
Density of Population (per sq. kms.)	133	170
Decadal Growth (%)	**1981-91**	**1991- 00**
All	30.61	27.33
Rural	n.a.	23.09
Urban	n.a.	45.08

Human Development Indices - 2002

Human Development Index (HDI)	0.449
Rank in Madhya Pradesh : HDI	43
Gender Related Development Index (GDI)	0.453
Rank in Madhya Pradesh : GDI	44

Graph on Human Development Index



Administrative Information

Janpad Panchayats	8
Gram Panchayats	558
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	175	150
	1991	**2001**
Life Expectancy (years)	47.2	50.4
	1976-81	**1984-90**
Crude Birth Rate	39.7	42.6

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	268.64	312.58
	1996	**2000**
FPS per lakh population	45.09	43

Gender

	1991	2001
Life Expectancy of Females at Birth	44.3	47.4
Child Sex Ratio	919	920
Girl Child Mortality (birth to age 1 year)	149	n.a.
Girl Child Mortality (up to age 5 years)	227	n.a.
Total Fertility Rate	6.6	n.a.
Gender Ratio : All	856	869
Rural	855	868
Urban	862	873
General non SC/ ST Gender Ratio	854	n.a.
SC Gender Ratio	854	n.a.
ST Gender Ratio	916	n.a.
Workers Participation Rate - Female	28.6%	29.7%
	2000	
Female Enrolment Rate (Ages 6-14)	84.3%	

Basic Amenities

	2000
Habitations with SDW facility	99.6%
Habitations without 40 lpd water availability	0.4%
Number of villages electrified	1062
Percentage of villages not connected with pucca roads	61.6
	1991
Households without access to electricity, SDW and toilet facilities	55.51

Deprivation

Estimated Poverty Rate (1993-1994)	24.9%
Children as main workers (1991)	5.5%
Children as main and marginal workers (1991)	8.5%
Percentage of safe deliveries (1998-1999)	24.4
Percentage of children fully immunised (1998-1999)	29.5

Forests

	1999
Per Capita Forest Area (in hectares)	0.111
Annual Rate of Afforestation (%) (1993-1999)	-0.54
Major Non-Timber Forest Produce :	
Tendu Leaves, Baheda, Achar Guthli, Nagarmotha, Aonla, Mahua Flowers, Charota Seeds, Jamun, Khair	

Education

	1991	2001
Literacy (%) : All	35.2%	53.4%
Male	46.9%	65.5%
Female	21.3%	39.4%
Rural	28.3%	47.5%
Urban	63.4%	73.6%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	87.7%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

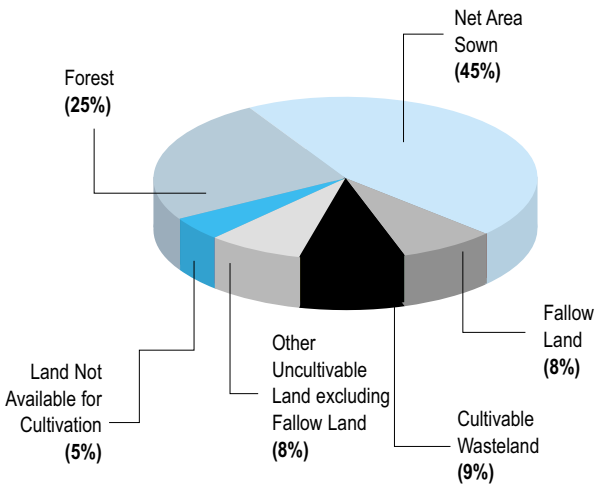
Employment

	1991	2001
Worker Participation Rate :		
All	41.0%	40.2%
Rural	43.6%	43.0%
Urban	30.2%	30.5%
Share of Primary Sector (%)	82.6%	n.a.
Share of Secondary Sector (%)	6.0%	n.a.
Share of Tertiary Sector (%)	11.45%	n.a.
Employment in Registered Industries (2000)		947
Employment Rate of Growth (1991 to 2001)	n.a.	24.9%
Total Employment in Farm Sector (%)	82.5%	75.34
Rural Employment in Non Farm Sector (%)	10.0%	15.4%
Agriculture Labour (%)	20.5%	20.4%

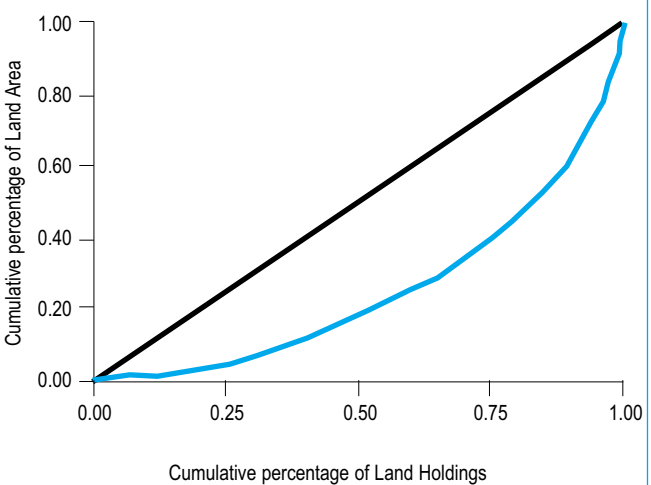
Infrastructure / Facilities

	2001
Middle Schools per lakh population	28.3
High Schools per lakh population	12.6
Rural Population per Primary Health Centre	28057
Population Serviced Sub Health Centre	6087
	2000
Road length per 100 sq. km. (1999)	25.9
Telephone per lakh population	733
Population per Post Office (1994-95)	5905
Registered establishments under Factories Act (1997)	71
Per capita consumption of electricity (non industrial) in kwh	64.1

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	340.2	383.5
Gross Cropped Area (in 000' ha.)	387.7	484.3
Double Cropped Area to Net Area Sown	14.0	26.3
Net Irrigated Area (in 000' ha.)	77.2	169.5
Gross Irrigated Area (in 000' ha.)	77.5	169.5
	1992-93	**1998-99**
Agriculture Intensity	119.1	126.3

Credit

	2000
Credit-Deposit Ratio	39.42
Commercial Banks (per 1000 population)	0.02
Crop lending per hectare of cultivated land	643.4
Crop lending per hectare of irrigated land	1892.6

Habitat

	2001	
Number of towns reporting slums	14	
Urban population residing in slums	8.15%	
Level of ground water development	40.12	
Average annual rainfall (in mm)	1075.00	
	1995	**2000**
Percentage area under wasteland	16.6%	17.94%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	205.9	235.4
Pulses Per Capita (Kg)	62.8	77.1
Oilseeds Per Capita (Kg)	15.6	30.6
Average Landholding (Ha)	2.6	2.27
Gross Irrigated Area ('000 Ha)		169.5
Fertiliser Consumption Per Hectare (Kg)	22.0	37.86
	1993	**1999**
Cropping Intensity	119	126.3

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	39.4%	44.4%
Gross Cropped Area to Total Area	44.9%	56.1%
Net Irrigated to Net Sown Area	22.7%	44.2%
Cropped Area under Food Grains	79.3%	71.2%
Yield of Food Grains (in kg. per hectare)	984	1273
Per Capita Food Production (in kgs.)		312.6

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Chattarpur	289346	180325	109021	37.7%	58.3%	44.0%	80.4%	46.7%	875	913	14.72	37.36
Rajnagar	216187	184463	31724	14.7%	46.0%	42.5%	65.9%	31.3%	880	920	17.70	40.43
Nawgaon	251377	168449	82928	33.0%	58.1%	49.1%	75.4%	44.4%	873	915	22.19	37.90
Laundi	169539	139146	30393	17.9%	54.9%	51.0%	72.0%	39.4%	855	900	22.96	41.50
Gaurihar	158241	149652	8589	5.4%	56.2%	55.8%	61.9%	38.8%	852	915	29.59	43.46
Bijawar	229092	182510	46582	20.3%	50.3%	46.8%	63.7%	36.7%	870	930	19.92	41.66
Bada Malhara	160851	145809	15042	9.4%	47.5%	45.2%	69.0%	33.2%	871	955	19.13	42.14

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Chattarpur	1041.98	44.1%	60.2%	0.32	137	63.72	46.66	73.898	Grey
Rajnagar	1356.9	38.4%	52.8%	0.32	137	60.92	44.35	79.711	Grey
Nowgaon	800.83	63.3%	74.9%	0.39	118	49.05	41.47	46.507	White
Laundi	787.99	68.4%	73.3%	0.48	107	17.14	15.98	21.756	White
Gaurihar	1535.22	43.6%	44.9%	0.54	103	4.27	4.15	2.187	White
Bijawar	888.47	35.0%	43.2%	0.33	123	41.12	33.32	23.733	White
Bada Malhara	1080.85	38.2%	51.9%	0.34	136	54.85	40.34	54.712	White
Bakswaha	785.02	31.6%	34.6%	0.55	110	10.47	9.56	54.360	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Chattarpur	24.78	2.66	29.66	27.14	4037
Rajnagar	21.1	5.76	18.35	23.19	4523
Nowgaon	26.31	0.4	35.96	37.39	4084
Laundi	29.27	1.01	21.07	22.07	3545
Gaurihar	28.55	0.18	10.92	25.19	4782
Bijawar	22.47	13.52	16.02	26.57	3962
Bada Malhara	26.78	6.85	10	30.32	4056
Bakswaha	18.27	11.97	12.61	24.53	3227

CHHINDWARA

Basic Details on the District

Area (in sq. km)	11815
Total Inhabited Villages	1903
Total Habitations	3646
Forest Villages	49
Towns (Class I to IV) and Major Towns	22
Chhindwara, Chikhlikalan Parasia	
Crop Zone :	
Wheat Jowar	
Soil type :	
Shallow Black (Medium)	
Agri Climatic Zone :	
Satpura Plateau	
Schedule V Areas :	
All Blocks of Tamia and Jamai Tehsils and parts of Sausar and Chhindwara Tehsils	

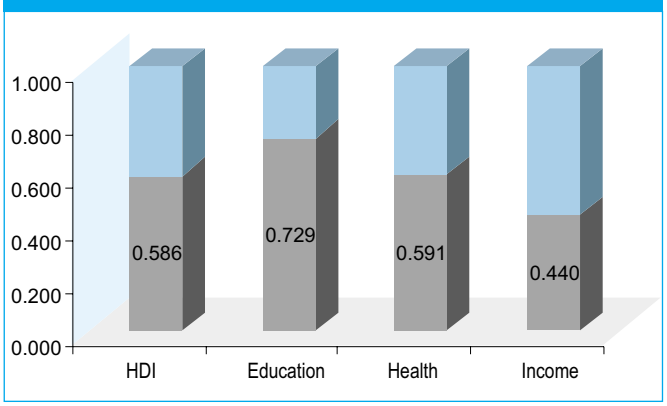
Demography

	1991	2001
Population	1568702	1848882
Share of Madhya Pradesh Population	3.23%	3.06%
Urban Population	23.1%	24.5%
Population of Scheduled Castes (SC)	12.2%	n.a.
Population of Scheduled Tribes (ST)	34.5%	n.a.
Density of Population (per sq. kms.)	133	156
Decadal Growth (%)	**1981-91**	**1991- 00**
All	27.21	17.86
Rural	n.a.	15.77
Urban	n.a.	24.81

Human Development Indices - 2002

Human Development Index (HDI)	0.586
Rank in Madhya Pradesh : HDI	13
Gender Related Development Index (GDI)	0.575
Rank in Madhya Pradesh : GDI	15

Graph on Human Development Index



Administrative Information

Janpad Panchayats	11
Gram Panchayats	808
Tehsils	9
Tribal Blocks	3
Legislative Assembly Seats	8

Health

	1981	1991
Infant Mortality Rate	131	103
	1991	**2001**
Life Expectancy (years)	55.9	60.4
	1976-81	**1984-90**
Crude Birth Rate	32.5	37.0

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	320.20	243.64
	1996	**2000**
FPS per lakh population	29.93	30

Gender

	1991	2001
Life Expectancy of Females at Birth	54.5	58.7
Child Sex Ratio	965	961
Girl Child Mortality (birth to age 1 year)	116	n.a.
Girl Child Mortality (up to age 5 years)	137	n.a.
Total Fertility Rate	5.3	n.a.
Gender Ratio : All	953	953
Rural	967	962
Urban	906	926
General non SC/ ST Gender Ratio	930	n.a.
SC Gender Ratio	930	n.a.
ST Gender Ratio	998	n.a.
Workers Participation Rate - Female	34.2%	32.9%
	2000	
Female Enrolment Rate (Ages 6-14)	84.6%	

Basic Amenities

	2000
Habitations with SDW facility	99.8%
Habitations without 40 lpd water availability	0.4%
Number of villages electrified	1897
Percentage of villages not connected with pucca roads	68.8
	1991
Households without access to electricity, SDW and toilet facilities	18.40

Deprivation

Estimated Poverty Rate (1993-1994)	31.2%
Children as main workers (1991)	7.9%
Children as main and marginal workers (1991)	10.5%
Percentage of safe deliveries (1998-1999)	43.3
Percentage of children fully immunised (1998-1999)	41.4

Forests

	1999
Per Capita Forest Area (in hectares)	0.259
Annual Rate of Afforestation (%) (1993-1999)	0.82
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra, Achar Guthli, Aonla, Sal Seeds	

Education

	1991	2001
Literacy (%) : All	44.9%	66.0%
Male	56.7%	76.7%
Female	32.5%	54.8%
Rural	36.3%	60.8%
Urban	72.5%	81.5%
Access to Education	2000	
Enrolment Rate (Ages 6-14)	86.7%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

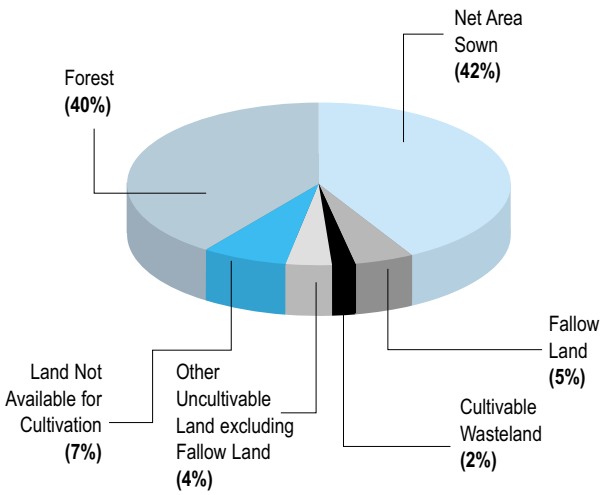
Employment

	1991	2001
Worker Participation Rate :		
All	43.5%	42.2%
Rural	48.0%	46.2%
Urban	28.3%	29.6%
Share of Primary Sector (%)	81.3%	n.a.
Share of Secondary Sector (%)	5.4%	n.a.
Share of Tertiary Sector (%)	13.35%	n.a.
Employment in Registered Industries (2000)		17045
Employment Rate of Growth (1991 to 2001)	n.a.	14.3%
Total Employment in Farm Sector (%)	76.8%	74.43
Rural Employment in Non Farm Sector (%)	12.0%	13.9%
Agriculture Labour (%)	25.9%	35.2%

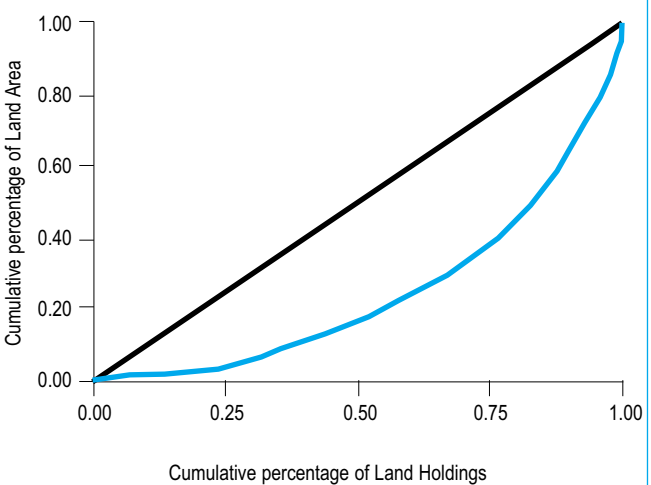
Infrastructure / Facilities

	2001
Middle Schools per lakh population	35.7
High Schools per lakh population	16.7
Rural Population per Primary Health Centre	20845
Population Serviced Sub Health Centre	4406
	2000
Road length per 100 sq. km. (1999)	17.3
Telephone per lakh population	1115
Population per Post Office (1994-95)	6634
Registered establishments under Factories Act (1997)	283
Per capita consumption of electricity (non industrial) in kwh	190.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	476.3	495.9
Gross Cropped Area (in 000' ha.)	528.0	615.5
Double Cropped Area to Net Area Sown	10.9	24.1
Net Irrigated Area (in 000' ha.)	39.3	120.0
Gross Irrigated Area (in 000' ha.)	48.7	128.0
	1992-93	**1998-99**
Agriculture Intensity	113.6	124.1

Credit

	2000
Credit-Deposit Ratio	44.87
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	636.9
Crop lending per hectare of irrigated land	3707.7

Habitat

	2001	
Number of towns reporting slums	22	
Urban population residing in slums	6.51%	
Level of ground water development	35.06	
Average annual rainfall (in mm)	1053.70	
	1995	**2000**
Percentage area under wasteland	8.9%	15.46%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	260.1	198.6
Pulses Per Capita (Kg)	60.1	45.0
Oilseeds Per Capita (Kg)	106.4	66.8
Average Landholding (Ha)	3.0	2.33
Gross Irrigated Area ('000 Ha)		128.0
Fertiliser Consumption Per Hectare (Kg)	23.0	30.64
	1993	**1999**
Cropping Intensity	114	124.1

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	40.2%	41.9%
Gross Cropped Area to Total Area	44.6%	51.9%
Net Irrigated to Net Sown Area	8.3%	24.2%
Cropped Area under Food Grains	79.9%	61.9%
Yield of Food Grains (in kg. per hectare)	543	1143
Per Capita Food Production (in kgs.)		243.6

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Chhindwara	431558	277923	153635	35.6%	74.3%	68.2%	84.9%	64.5%	949	949	30.40	38.89
Amarwara	248239	226776	21463	8.6%	57.6%	55.6%	78.2%	44.6%	978	980	32.36	51.45
Sausar	169162	125658	43504	25.7%	76.1%	74.8%	79.6%	67.0%	938	945	45.19	45.52
Tamia	89034	89034	-	-	52.1%	52.1%	0.0%	37.0%	963	949	34.41	50.52
Parasia	272058	151113	120945	44.5%	66.6%	56.8%	78.2%	55.3%	942	958	23.33	33.57
Jamai	214582	154200	60382	28.1%	54.6%	43.0%	81.6%	43.6%	969	1003	27.15	37.15
Pandhurna	177617	136711	40906	23.0%	69.3%	65.3%	82.5%	58.6%	951	955	45.71	46.64
Bichhua	77549	77549	-	-	66.2%	66.2%	0.0%	54.0%	969	950	47.56	44.68
Chaurai	169083	157684	11399	6.7%	63.5%	62.3%	79.4%	51.1%	934	952	47.21	43.35

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Chhindwara	608.08	71.2%	92.7%	0.35	130	33.75	25.92	81.075	Grey
Tamia	1268.02	23.6%	26.4%	0.39	112	9.88	8.65	7.203	White
Parasia	649.91	67.6%	80.3%	0.32	119	20.53	17.24	35.632	White
Mohkhera	686.59	71.0%	87.8%	0.39	124	15.16	12.83	99.860	Dark
Jamai	1071.62	32.1%	35.1%	0.25	110	9.43	8.61	13.261	White
Sausar	672.9	61.6%	67.7%	0.41	110	7.82	13.28	30.332	White
Pandhurna	822.9	69.2%	80.5%	0.48	116	23.02	19.79	43.741	White
Bichhua	453	59.9%	70.9%	0.42	118	5.58	4.99	17.928	White
Amarwara	813.88	66.1%	77.3%	0.53	117	14.86	12.65	41.280	White
Chaurai	890.55	75.4%	94.6%	0.51	125	25.39	20.22	44.129	White
Harrai	1659.76	28.4%	30.6%	0.57	108	4.92	4.59	3.228	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Chhindwara	13.33	27.77	52.62	53.03	4833
Tamia	5.79	77.62	7.33	50.91	4481
Parasia	14.32	39.44	9.54	32.12	6066
Mohkhera	9.82	29.44	20.54	10.67	5022
Jamai	13.23	58.06	7.00	11.28	5412
Sausar	14.03	20.08	2.93	12.78	3652
Pandhurna	11.41	40.33	12.39	15.53	4131
Bichhua	10.84	55.47	20.97	4.90	6484
Amarwara	11.95	38.56	40.42	8.16	2986
Chaurai	9.87	19.58	13.25	16.02	32831
Harrai	8.01	80.44	27.65	7.48	6891

D A M O H

Basic Details on the District

Area (in sq. km)	7306
Total Inhabited Villages	1205
Total Habitations	1405
Forest Villages	1
Towns (Class I to IV) and Major Towns	5
Damoh	
Crop Zone :	
Wheat Zone	
Soil type :	
Medium Black and Deep Black (Medium/ Heavy)	
Agri Climatic Zone :	
Vindhya Plateau	
Schedule V Areas :	
No Schedule V area	

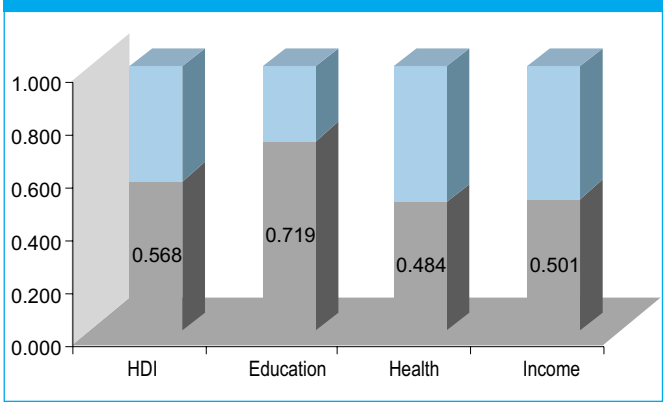
Demography

	1991	2001
Population	898125	1081909
Share of Madhya Pradesh Population	1.85%	1.79%
Urban Population	18.1%	18.9%
Population of Scheduled Castes (SC)	20.1%	n.a.
Population of Scheduled Tribes (ST)	12.4%	n.a.
Density of Population (per sq. kms.)	123	148
Decadal Growth (%)	**1981-91**	**1991- 00**
All	24.49	20.46
Rural	n.a.	19.37
Urban	n.a.	25.41

Human Development Indices - 2002

Human Development Index (HDI)	0.568
Rank in Madhya Pradesh : HDI	18
Gender Related Development Index (GDI)	0.586
Rank in Madhya Pradesh : GDI	11

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	456
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	173	123
	1991	**2001**
Life Expectancy (years)	50.7	54.0
	1976-81	**1984-90**
Crude Birth Rate	39.7	40.1

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	238.16	238.69
	1996	**2000**
FPS per lakh population	42.54	40

Gender

	1991	2001
Life Expectancy of Females at Birth	51.1	55.7
Child Sex Ratio	930	948
Girl Child Mortality (birth to age 1 year)	139	n.a.
Girl Child Mortality (up to age 5 years)	173	n.a.
Total Fertility Rate	5.3	n.a.
Gender Ratio : All	905	902
Rural	908	903
Urban	895	901
General non SC/ ST Gender Ratio	903	n.a.
SC Gender Ratio	885	n.a.
ST Gender Ratio	951	n.a.
Workers Participation Rate - Female	28.2%	35.6%
	2000	
Female Enrolment Rate (Ages 6-14)	90.9%	

Basic Amenities

	2000
Habitations with SDW facility	96.9%
Habitations without 40 lpd water availability	3.2%
Number of villages electrified	1110
Percentage of villages not connected with pucca roads	62.9
	1991
Households without access to electricity, SDW and toilet facilities	43.69

Deprivation

Estimated Poverty Rate (1993-1994)	55.3%
Children as main workers (1991)	4.9%
Children as main and marginal workers (1991)	6.4%
Percentage of safe deliveries (1998-1999)	29.1
Percentage of children fully immunised (1998-1999)	27.2

Forests

	1999
Per Capita Forest Area (in hectares)	0.282
Annual Rate of Afforestation (%) (1993-1999)	-1.04
Major Non-Timber Forest Produce :	
Tendu Leaves, Khair	

Education

	1991	2001
Literacy (%) : All	46.3%	62.1%
Male	60.5%	75.1%
Female	30.5%	47.5%
Rural	40.0%	57.4%
Urban	73.8%	81.1%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	91.6%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

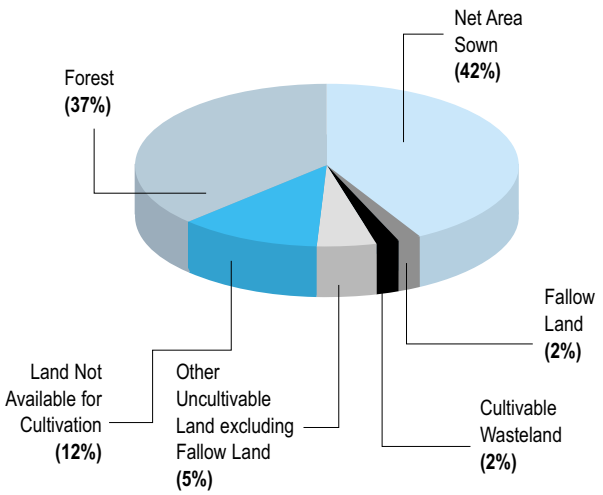
Employment

	1991	2001
Worker Participation Rate :		
All	40.9%	44.8%
Rural	43.0%	47.3%
Urban	31.6%	34.2%
Share of Primary Sector (%)	63.8%	n.a.
Share of Secondary Sector (%)	24.0%	n.a.
Share of Tertiary Sector (%)	12.14%	n.a.
Employment in Registered Industries (2000)		3178
Employment Rate of Growth (1991 to 2001)	n.a.	32.0%
Total Employment in Farm Sector (%)	63.7%	57.63
Rural Employment in Non Farm Sector (%)	27.3%	34.1%
Agriculture Labour (%)	26.1%	29.7%

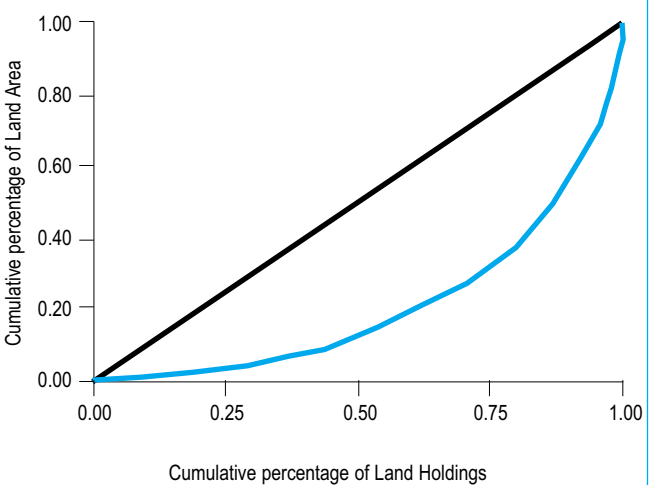
Infrastructure / Facilities

	2001
Middle Schools per lakh population	24.9
High Schools per lakh population	8.4
Rural Population per Primary Health Centre	58506
Population Serviced Sub Health Centre	5417
	2000
Road length per 100 sq. km. (1999)	21.3
Telephone per lakh population	665
Population per Post Office (1994-95)	5324
Registered establishments under Factories Act (1997)	63
Per capita consumption of electricity (non industrial) in kwh	298.7

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	277.0	302.3
Gross Cropped Area (in 000' ha.)	304.9	389.1
Double Cropped Area to Net Area Sown	10.1	28.7
Net Irrigated Area (in 000' ha.)	12.6	81.3
Gross Irrigated Area (in 000' ha.)	16.0	83.4
	1992-93	**1998-99**
Agriculture Intensity	115.1	128.7

Credit

	2000
Credit-Deposit Ratio	57.31
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	596.4
Crop lending per hectare of irrigated land	2994.4

Habitat

	2001	
Number of towns reporting slums	5	
Urban population residing in slums	13.72%	
Level of ground water development	33.35	
Average annual rainfall (in mm)	1224.00	
	1995	**2000**
Percentage area under wasteland	14.4%	25.56%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	175.5	171.4
Pulses Per Capita (Kg)	62.7	67.3
Oilseeds Per Capita (Kg)	17.0	50.2
Average Landholding (Ha)	2.8	2.31
Gross Irrigated Area ('000 Ha)		83.4
Fertiliser Consumption Per Hectare (Kg)	16.1	20.59
	1993	**1999**
Cropping Intensity	115	128.7

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	38.0%	41.5%
Gross Cropped Area to Total Area	41.8%	53.4%
Net Irrigated to Net Sown Area	4.5%	26.9%
Cropped Area under Food Grains	86.8%	73.0%
Yield of Food Grains (in kg. per hectare)	643	876
Per Capita Food Production (in kgs.)		238.7

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Damoh	310476	163079	147397	47.5%	70.8%	60.2%	82.0%	58.8%	897	936	22.10	40.42
Patharia	146585	129403	17182	11.7%	65.0%	63.2%	77.9%	49.3%	894	962	39.74	43.68
Jabera	141741	141741	-	-	60.0%	60.0%	0.0%	43.3%	919	942	25.66	47.99
Tendukheda	128180	116952	11228	8.8%	55.7%	54.1%	72.4%	39.4%	920	960	33.30	47.24
Hatta	128761	100253	28508	22.1%	56.8%	49.5%	81.6%	43.1%	889	946	26.75	49.70
Patera	107454	107454	-	-	54.1%	54.1%	0.0%	38.7%	906	959	35.46	44.36
Batiagarh	118712	118712	-	-	57.3%	57.3%	0.0%	41.8%	900	952	34.64	46.66

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Damoh	861.28	63.3%	75.3%	0.39	119	14.65	12.71	56.351	White
Patharia	677.77	82.5%	102.3%	0.53	124	22.67	18.32	74.627	Grey
Jabera	907.79	34.9%	47.3%	0.27	135	13.53	28.53	9.558	White
Tendukheda	676.17	39.7%	51.1%	0.27	128	26.49	22.1	8.090	White
Hatta	704.96	63.3%	70.6%	0.52	112	13.84	12.76	27.171	White
Patera	647.25	62.9%	71.5%	0.46	114	15.42	13.54	18.010	White
Batiagarh	653.8	58.9%	72.1%	0.4	122	29.09	23.78	47.730	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Damoh	21.21	11.72	26.12	29.66	3665
Patharia	22.61	4.64	15.05	25.95	4437
Jabera	18.06	23.29	27.32	35.33	4424
Tendukheda	14.87	29.6	32.24	30.77	5790
Hatta	23.4	11.65	25.67	40	5024
Patera	21.67	10.39	49.13	38.36	5220
Batiagarh	20.9	11.36	22.18	30.14	5710

DATIA

Basic Details on the District

Area (in sq. km)	2691
Total Inhabited Villages	542
Total Habitations	710
Forest Villages	0
Towns (Class I to IV) and Major Towns	4
Datia	
Crop Zone :	
Wheat Jowar	
Soil type :	
Mixed Red and Black (Medium)	
Agri Climatic Zone :	
Bundelkhand Region	
Schedule V Areas :	
No Schedule V area	

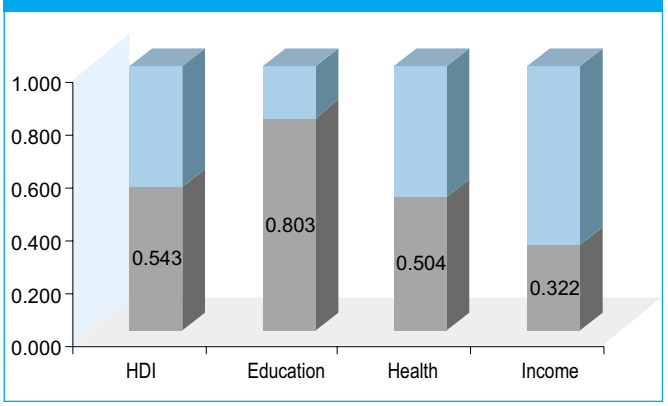
Demography

	1991	2001
Population	515360	627818
Share of Madhya Pradesh Population	1.06%	1.04%
Urban Population	20.4%	21.9%
Population of Scheduled Castes (SC)	24.8%	n.a.
Population of Scheduled Tribes (ST)	1.5%	n.a.
Density of Population (per sq. kms.)	192	233
Decadal Growth (%)	**1981-91**	**1991- 00**
All	26.01	21.82
Rural	n.a.	19.58
Urban	n.a.	30.54

Human Development Indices - 2002

Human Development Index (HDI)	0.543
Rank in Madhya Pradesh : HDI	28
Gender Related Development Index (GDI)	0.549
Rank in Madhya Pradesh : GDI	22

Graph on Human Development Index



Administrative Information

Janpad Panchayats	3
Gram Panchayats	250
Tehsils	3
Tribal Blocks	0
Legislative Assembly Seats	3

Health

	1981	1991
Infant Mortality Rate	176	115
	1991	**2001**
Life Expectancy (years)	52.2	55.2
	1976-81	**1984-90**
Crude Birth Rate	36.1	39.5

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	339.88	404.63
	1996	**2000**
FPS per lakh population	29.94	29

Gender

	1991	2001
Life Expectancy of Females at Birth	50.1	51.6
Child Sex Ratio	899	874
Girl Child Mortality (birth to age 1 year)	141	n.a.
Girl Child Mortality (up to age 5 years)	213	n.a.
Total Fertility Rate	5.8	n.a.
Gender Ratio : All	847	858
Rural	841	855
Urban	871	870
General non SC/ ST Gender Ratio	849	n.a.
SC Gender Ratio	839	n.a.
ST Gender Ratio	877	n.a.
Workers Participation Rate - Female	21.4%	43.2%
	2000	
Female Enrolment Rate (Ages 6-14)	93.4%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	539
Percentage of villages not connected with pucca roads	55.4
	1991
Households without access to electricity, SDW and toilet facilities	24.18

Deprivation

Estimated Poverty Rate (1993-1994)	17.5%
Children as main workers (1991)	2.9%
Children as main and marginal workers (1991)	4.8%
Percentage of safe deliveries (1998-1999)	32.9
Percentage of children fully immunised (1998-1999)	35.1

Forests

	1999
Per Capita Forest Area (in hectares)	0.022
Annual Rate of Afforestation (%) (1993-1999)	18.52
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	45.2%	73.5%
Male	62.5%	82.9%
Female	24.5%	62.5%
Rural	40.5%	72.0%
Urban	63.3%	78.6%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	94.0%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

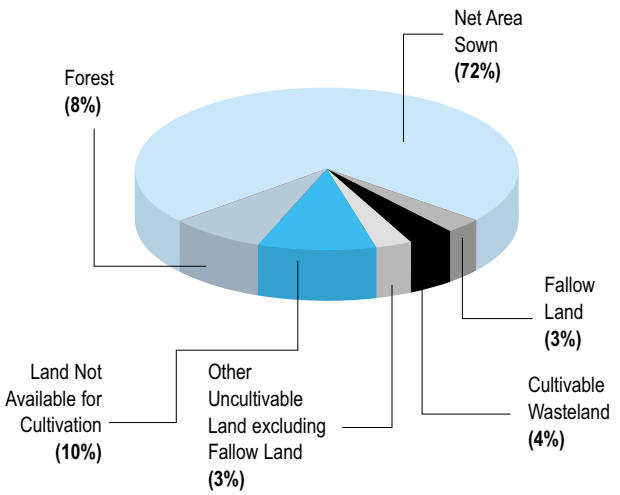
Employment

	1991	2001
Worker Participation Rate :		
All	37.2%	50.4%
Rural	39.7%	55.1%
Urban	27.3%	33.4%
Share of Primary Sector (%)	78.9%	n.a.
Share of Secondary Sector (%)	5.9%	n.a.
Share of Tertiary Sector (%)	15.23%	n.a.
Employment in Registered Industries (2000)		1327
Employment Rate of Growth (1991 to 2001)	n.a.	65.0%
Total Employment in Farm Sector (%)	78.8%	78.19
Rural Employment in Non Farm Sector (%)	10.1%	11.6%
Agriculture Labour (%)	14.0%	16.0%

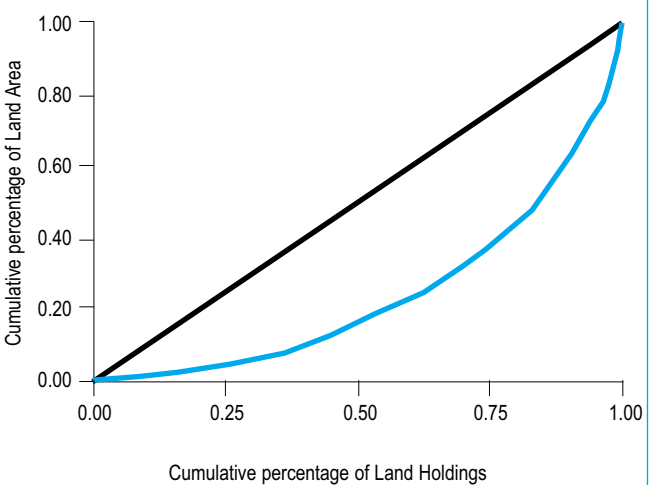
Infrastructure / Facilities

	2001
Middle Schools per lakh population	38.8
High Schools per lakh population	13.6
Rural Population per Primary Health Centre	44570
Population Serviced Sub Health Centre	5635
	2000
Road length per 100 sq. km. (1999)	20.2
Telephone per lakh population	947
Population per Post Office (1994-95)	4480
Registered establishments under Factories Act (1997)	49
	116.5
Per capita consumption of electricity (non industrial) in kwh	120.8

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	127.3	190.6
Gross Cropped Area (in 000' ha.)	130.0	209.2
Double Cropped Area to Net Area Sown	2.1	9.7
Net Irrigated Area (in 000' ha.)	30.0	81.4
Gross Irrigated Area (in 000' ha.)	30.1	85.5
	1992-93	**1998-99**
Agriculture Intensity	106.0	109.7

Credit

	2000
Credit-Deposit Ratio	51.02
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	2017.5
Crop lending per hectare of irrigated land	4992.1

Habitat

	2001	
Number of towns reporting slums	4	
Urban population residing in slums	10.99%	
Level of ground water development	42.87	
Average annual rainfall (in mm)	742.60	
	1995	**2000**
Percentage area under wasteland	21.7%	30.60%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	233.9	259.6
Pulses Per Capita (Kg)	106.0	145.0
Oilseeds Per Capita (Kg)	18.2	25.4
Average Landholding (Ha)	2.8	2.50
Gross Irrigated Area ('000 Ha)		85.5
Fertiliser Consumption Per Hectare (Kg)	32.5	43.03
	1993	**1999**
Cropping Intensity	106	109.7

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	62.6%	72.2%
Gross Cropped Area to Total Area	63.9%	79.2%
Net Irrigated to Net Sown Area	23.6%	42.7%
Cropped Area under Food Grains	92.5%	84.2%
Yield of Food Grains (in kg. per hectare)	668	1386
Per Capita Food Production (in kgs.)		404.6

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Sewda	208804	174668	34136	16.3%	71.3%	70.9%	73.3%	57.1%	842	856	17.92	50.06
Datia	278612	195870	82742	29.7%	74.3%	71.8%	80.1%	67.9%	869	890	13.83	47.03
Bhander	140402	119735	20667	14.7%	75.1%	74.1%	81.0%	59.7%	862	873	16.96	57.45

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Datia	1006.92	66.7%	72.5%	0.41	109	33.06	32.08	80.842	Grey
Sewda	894.05	73.5%	77.1%	0.45	105	48.46	46.24	43.416	White
Bhander	652.75	85.2%	87.1%	0.54	102	27.89	28.22	12.704	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Datia	28.11	3.48	22.64	26.83	2894
Sewda	26.25	0.24	17.78	23.59	3378
Bhander	26.28	0.76	15.47	24.64	3539

D E W A S

Basic Details on the District

Area (in sq. km)	7020
Total Inhabited Villages	1058
Total Habitations	1240
Forest Villages	19
Towns (Class I to IV) and Major Towns	11
Dewas	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
No Schedule V area	

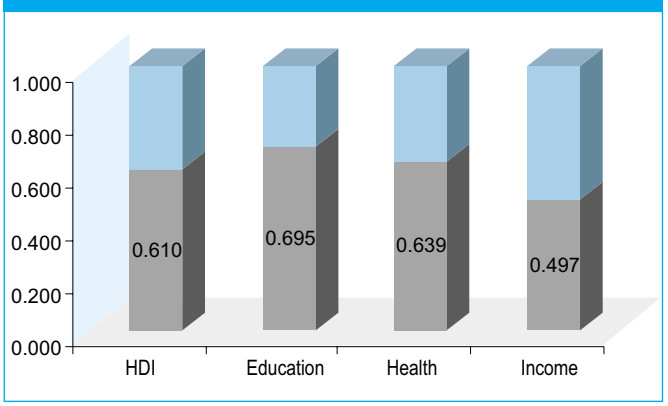
Demography

	1991	2001
Population	1033807	1306617
Share of Madhya Pradesh Population	2.13%	2.16%
Urban Population	25.9%	27.4%
Population of Scheduled Castes (SC)	18.2%	n.a.
Population of Scheduled Tribes (ST)	15.0%	n.a.
Density of Population (per sq. kms.)	147	186
Decadal Growth (%)	**1981-91**	**1991- 00**
All	29.99	26.39
Rural	n.a.	23.9
Urban	n.a.	33.51

Human Development Indices - 2002

Human Development Index (HDI)	0.610
Rank in Madhya Pradesh : HDI	10
Gender Related Development Index (GDI)	0.634
Rank in Madhya Pradesh : GDI	1

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	459
Tehsils	6
Tribal Blocks	0
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	121	90
	1991	**2001**
Life Expectancy (years)	58.1	63.3
	1976-81	**1984-90**
Crude Birth Rate	39.5	37.0

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	286.80	332.12
	1996	**2000**
FPS per lakh population	30.68	27

Gender

	1991	2001
Life Expectancy of Females at Birth	56.8	62.0
Child Sex Ratio	932	934
Girl Child Mortality (birth to age 1 year)	102	n.a.
Girl Child Mortality (up to age 5 years)	139	n.a.
Total Fertility Rate	5.0	n.a.
Gender Ratio : All	924	932
Rural	933	936
Urban	899	919
General non SC/ ST Gender Ratio	916	n.a.
SC Gender Ratio	921	n.a.
ST Gender Ratio	962	n.a.
Workers Participation Rate - Female	30.3%	36.3%
	2000	
Female Enrolment Rate (Ages 6-14)	80.5%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.1%
Number of villages electrified	1053
Percentage of villages not connected with pucca roads	73.0
	1991
Households without access to electricity, SDW and toilet facilities	15.25

Deprivation

Estimated Poverty Rate (1993-1994)	26.5%
Children as main workers (1991)	4.8%
Children as main and marginal workers (1991)	6.2%
Percentage of safe deliveries (1998-1999)	99.9
Percentage of children fully immunised (1998-1999)	50

Forests

	1999
Per Capita Forest Area (in hectares)	0.132
Annual Rate of Afforestation (%) (1993-1999)	-1.67
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	44.1%	61.0%
Male	61.2%	76.1%
Female	25.6%	44.9%
Rural	35.9%	54.7%
Urban	67.0%	77.4%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	86.5%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

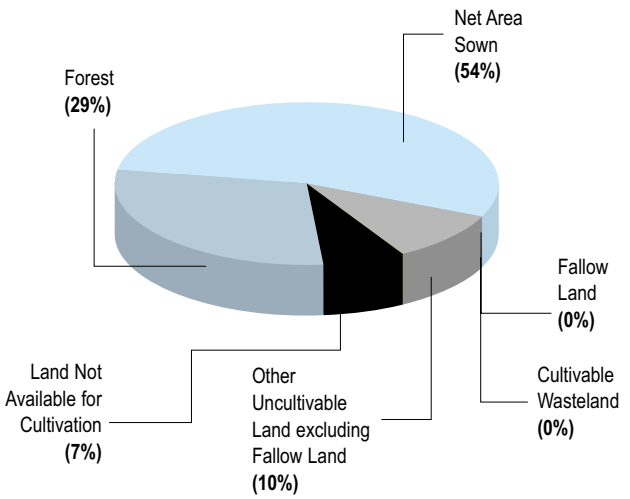
Employment

	1991	2001
Worker Participation Rate :		
All	41.0%	44.3%
Rural	44.6%	49.4%
Urban	30.8%	30.8%
Share of Primary Sector (%)	76.6%	n.a.
Share of Secondary Sector (%)	10.3%	n.a.
Share of Tertiary Sector (%)	13.19%	n.a.
Employment in Registered Industries (2000)		53425
Employment Rate of Growth (1991 to 2001)	n.a.	36.5%
Total Employment in Farm Sector (%)	76.5%	77.05
Rural Employment in Non Farm Sector (%)	10.4%	10.2%
Agriculture Labour (%)	31.8%	35.3%

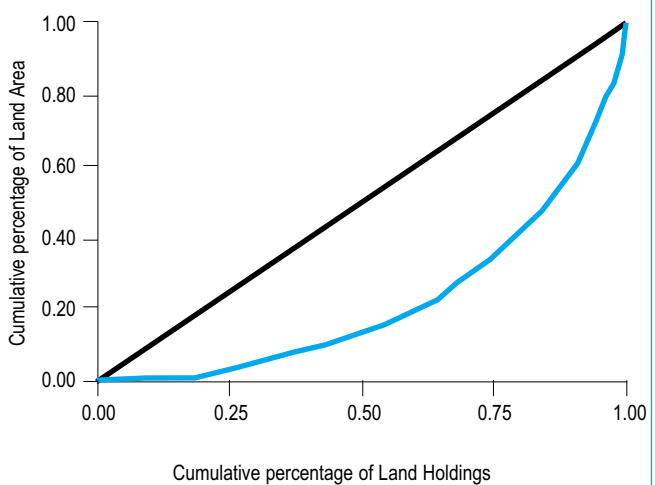
Infrastructure / Facilities

	2001
Middle Schools per lakh population	25.5
High Schools per lakh population	10.3
Rural Population per Primary Health Centre	37970
Population Serviced Sub Health Centre	4944
	2000
Road length per 100 sq. km. (1999)	14.5
Telephone per lakh population	1483
Population per Post Office (1994-95)	6846
Registered establishments under Factories Act (1997)	314
Per capita consumption of electricity (non industrial) in kwh	458.8

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	348.5	373.5
Gross Cropped Area (in 000' ha.)	387.7	590.5
Double Cropped Area to Net Area Sown	11.2	58.1
Net Irrigated Area (in 000' ha.)	37.9	158.4
Gross Irrigated Area (in 000' ha.)	38.5	158.6
	1992-93	**1998-99**
Agriculture Intensity	121.6	158.1

Credit

	2000
Credit-Deposit Ratio	83.48
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	895.1
Crop lending per hectare of irrigated land	3499.3

Habitat

	2001	
Number of towns reporting slums	11	
Urban population residing in slums	26.70%	
Level of ground water development	50.91	
Average annual rainfall (in mm)	1067.00	
	1995	**2000**
Percentage area under wasteland	20.7%	15.41%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	236.5	247.3
Pulses Per Capita (Kg)	50.3	84.9
Oilseeds Per Capita (Kg)	145.5	258.9
Average Landholding (Ha)	4.6	3.71
Gross Irrigated Area ('000 Ha)		158.6
Fertiliser Consumption Per Hectare (Kg)	42.4	55.22
	1993	**1999**
Cropping Intensity	122	158.1

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	49.8%	53.3%
Gross Cropped Area to Total Area	55.4%	84.3%
Net Irrigated to Net Sown Area	10.9%	42.4%
Cropped Area under Food Grains	58.5%	42.2%
Yield of Food Grains (in kg. per hectare)	766	1661
Per Capita Food Production (in kgs.)		332.1

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Sonkatch	150051	124103	25948	17.3%	63.7%	60.8%	77.6%	45.0%	936	936	33.32	48.32
Dewas	420710	190052	230658	54.8%	71.5%	59.2%	81.3%	57.1%	925	919	23.15	38.48
Bagli	255549	219236	36313	14.2%	51.9%	49.4%	66.1%	36.4%	948	956	41.04	47.38
Kannod	206711	163286	43425	21.0%	50.8%	46.9%	65.1%	34.0%	932	945	45.22	46.02
Khategaon	154057	133039	21018	13.6%	55.8%	52.2%	77.7%	40.4%	915	909	43.44	45.28
Tonkkhurd	119539	119539	-	-	63.2%	63.2%	0.0%	43.0%	938	948	33.82	49.21

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gorss irrigated area to total cropped area	Level of GW Development	Status of ground water
Dewas	887.69	88.7%	131.8%	0.5	149	37.51	25.28	78.614	Grey
Sonkatch	625.49	67.6%	97.3%	0.43	144	40.03	27.82	79.243	Grey
Tonkkhurd	640.06	72.9%	100.0%	0.48	137	22.91	16.71	43.924	White
Kannod	1302.47	52.3%	64.8%	0.53	124	23.18	18.75	29.179	White
Khategaon	1067.63	56.2%	70.6%	0.55	126	27.07	21.57	42.737	White
Bagli	1407.53	50.3%	71.2%	0.41	142	33.4	22.88	42.578	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Dewas	21.51	4.19	26.46	51.27	2029
Sonkatch	28.73	1.86	14.07	98.46	4272
Tonkkhurd	23.81	0.89	10.78	16.98	3382
Kannod	14.08	36.03	11.67	18.34	2485
Khategaon	15.66	23.7	7.12	10.84	2945
Bagli	17.01	33.05	13	25.67	4289

D H A R

Basic Details on the District

Area (in sq. km)	8153
Total Inhabited Villages	1487
Total Habitations	6438
Forest Villages	14
Towns (Class I to IV) and Major Towns	9
Dhar, Pithampura	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau (except Kukshi and Manawar Tehsil), Nimar Plain (Kukshi and Manawar Tehsil)	
Schedule V Areas :	
All Blocks of Sardarpur, Dhar, Kukshi, Manawar, Gandhwani, Dharmpuri Tehsils	

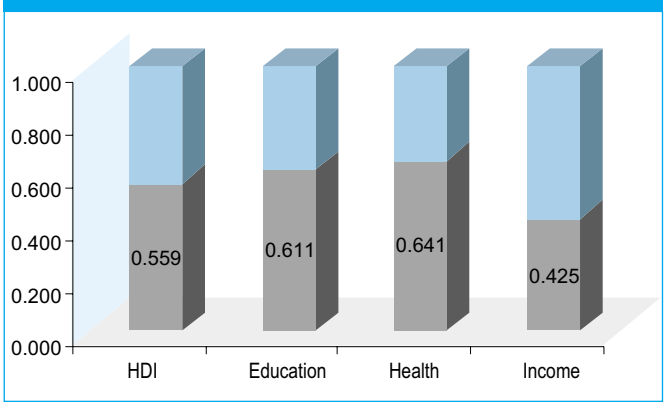
Demography

	1991	2001
Population	1367412	1740577
Share of Madhya Pradesh Population	2.82%	2.88%
Urban Population	13.1%	16.6%
Population of Scheduled Castes (SC)	6.9%	n.a.
Population of Scheduled Tribes (ST)	53.5%	n.a.
Density of Population (per sq. kms.)	168	213
Decadal Growth (%)	**1981-91**	**1991- 00**
All	29.31	27.29
Rural	n.a.	22.28
Urban	n.a.	60.39

Human Development Indices - 2002

Human Development Index (HDI)	0.559
Rank in Madhya Pradesh : HDI	23
Gender Related Development Index (GDI)	0.533
Rank in Madhya Pradesh : GDI	28

Graph on Human Development Index



Administrative Information

Janpad Panchayats	13
Gram Panchayats	669
Tehsils	7
Tribal Blocks	12
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	123	84
	1991	**2001**
Life Expectancy (years)	58.9	63.4
	1976-81	**1984-90**
Crude Birth Rate	38.9	37.2

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	275.26	303.76
	1996	**2000**
FPS per lakh population	29.52	28

Gender

	1991	2001
Life Expectancy of Females at Birth	58.0	60.7
Child Sex Ratio	970	941
Girl Child Mortality (birth to age 1 year)	102	n.a.
Girl Child Mortality (up to age 5 years)	127	n.a.
Total Fertility Rate	5.1	n.a.
Gender Ratio : All	951	954
Rural	960	970
Urban	892	875
General non SC/ ST Gender Ratio	918	n.a.
SC Gender Ratio	940	n.a.
ST Gender Ratio	977	n.a.
Workers Participation Rate - Female	40.3%	40.4%
	2000	
Female Enrolment Rate (Ages 6-14)	74.0%	

Basic Amenities

	2000
Habitations with SDW facility	98.8%
Habitations without 40 lpd water availability	1.2%
Number of villages electrified	1479
Percentage of villages not connected with pucca roads	70.5
	1991
Households without access to electricity, SDW and toilet facilities	15.30

Deprivation

Estimated Poverty Rate (1993-1994)	21.8%
Children as main workers (1991)	8.7%
Children as main and marginal workers (1991)	11.4%
Percentage of safe deliveries (1998-1999)	35.7
Percentage of children fully immunised (1998-1999)	36.5

Forests

	1999
Per Capita Forest Area (in hectares)	0.038
Annual Rate of Afforestation (%) (1993-1999)	2.16
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	34.5%	52.7%
Male	47.6%	66.2%
Female	20.7%	38.6%
Rural	29.4%	48.0%
Urban	67.4%	75.2%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	78.0%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

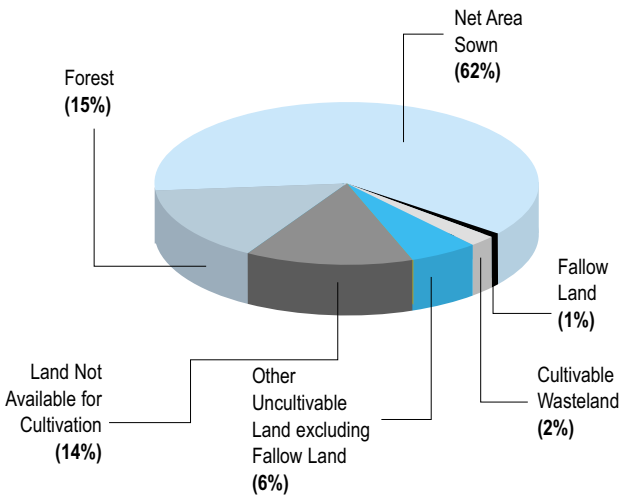
Employment

	1991	2001
Worker Participation Rate :		
All	46.7%	46.6%
Rural	48.8%	49.2%
Urban	32.9%	33.8%
Share of Primary Sector (%)	84.1%	n.a.
Share of Secondary Sector (%)	5.9%	n.a.
Share of Tertiary Sector (%)	10.03%	n.a.
Employment in Registered Industries (2000)		64550
Employment Rate of Growth (1991 to 2001)	n.a.	27.0%
Total Employment in Farm Sector (%)	84.1%	81.76
Rural Employment in Non Farm Sector (%)	9.4%	9.8%
Agriculture Labour (%)	24.1%	29.6%

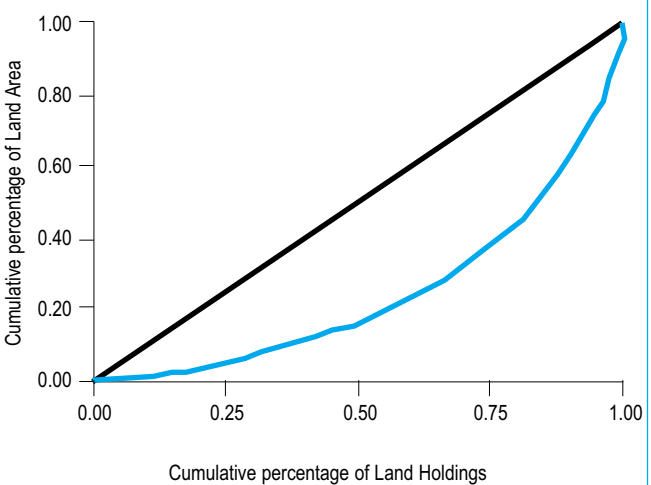
Infrastructure / Facilities

	2001
Middle Schools per lakh population	30.1
High Schools per lakh population	10.5
Rural Population per Primary Health Centre	29047
Population Serviced Sub Health Centre	3631
	2000
Road length per 100 sq. km. (1999)	25.3
Telephone per lakh population	1249
Population per Post Office (1994-95)	7449
Registered establishments under Factories Act (1997)	593
Per capita consumption of electricity (non industrial) in kwh	517.6

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	492.1	505.3
Gross Cropped Area (in 000' ha.)	565.2	731.6
Double Cropped Area to Net Area Sown	14.9	44.8
Net Irrigated Area (in 000' ha.)	56.3	232.6
Gross Irrigated Area (in 000' ha.)	56.3	232.6
	1992-93	**1998-99**
Agriculture Intensity	129.3	144.8

Credit

	2000
Credit-Deposit Ratio	64.33
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	1054.5
Crop lending per hectare of irrigated land	3380.5

Habitat

	2001	
Number of towns reporting slums	9	
Urban population residing in slums	3.43%	
Level of ground water development	63.23	
Average annual rainfall (in mm)	875.00	
	1995	**2000**
Percentage area under wasteland	15.9%	23.30%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	237.5	271.7
Pulses Per Capita (Kg)	37.7	32.0
Oilseeds Per Capita (Kg)	114.5	168.2
Average Landholding (Ha)	3.7	3.07
Gross Irrigated Area ('000 Ha)		232.6
Fertiliser Consumption Per Hectare (Kg)	53.4	64.37
	1993	**1999**
Cropping Intensity	129	144.8

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	60.0%	61.7%
Gross Cropped Area to Total Area	69.0%	89.3%
Net Irrigated to Net Sown Area	11.4%	46.0%
Cropped Area under Food Grains	64.0%	48.1%
Yield of Food Grains (in kg. per hectare)	668	1431
Per Capita Food Production (in kgs.)		303.8

NA = not available

	Population				Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Badnawar	193634	175888	17746	9.2%	57.0%	54.9%	76.6%	40.1%	965	926	33.10	48.75
Sardarpur	230463	208733	21730	9.4%	50.3%	47.3%	77.4%	34.1%	962	929	30.44	48.03
Dhar	431852	279784	152068	35.2%	61.5%	52.9%	76.6%	46.2%	902	935	29.39	40.75
Kukshi	356188	324456	31732	8.9%	40.4%	36.8%	75.0%	29.4%	981	962	24.47	50.68
Manawar	254860	229400	25460	10.0%	52.9%	50.9%	70.0%	38.9%	977	915	34.24	48.11
Gandhwani	122159	122159	-	-	42.7%	42.7%	0.0%	32.3%	987	1009	13.70	49.50
Dharampuri	151421	111922	39499	26.1%	61.6%	57.9%	71.8%	48.7%	951	926	43.93	44.27

	Agriculture and Irrigation							Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to net sown area	% Gross Irrigated area to total cropped area	Level of GW Development	Status of ground water
Dhar	578.94	82.4%	130.2%	0.67	158	40.64	25.73	156.823	Over Exploited
Nalchha	783.66	56.5%	85.6%	0.39	152	31.54	20.81	119.441	Over Exploited
Tirla	343.18	73.7%	99.9%	0.45	136	23.53	17.36	63.471	White
Badnawar	1038.49	75.2%	118.5%	0.56	158	40.26	25.55	188.926	Over Exploited
Sardarpur	1279.84	61.0%	82.2%	0.46	135	26.85	19.94	65.247	Grey
Manawar	555.52	75.3%	87.5%	0.44	116	37.28	32.08	120.546	Over Exploited
Dharampuri	428.66	61.9%	75.6%	0.29	122	46.19	37.85	57.921	Grey
Gandhwani	694.73	50.6%	58.8%	0.37	116	36.28	29.79	22.973	White
Bakaner	478.78	67.6%	82.4%	0.36	122	17.62	15.15	70.854	Grey
Kukshi	343.53	68.2%	79.6%	0.4	117	19.26	16.52	31.709	White
Nisarpur	353.04	72.7%	85.1%	0.42	117	42.39	36.22	15.532	White
Bagh	502.61	51.4%	57.1%	0.38	111	9.68	8.72	8.966	White
Dahi	482.23	42.7%	52.0%	0.26	122	24.35	19.99	20.344	White

	Population in 1991 (in percentage)		Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Dhar	16.78	12.06	26.4	30.5	2386
Nalchha	8.9	44.31	17.6	36.0	4202
Tirla	4.41	71.57	4.5	66.0	3744
Badnawar	11.77	33.22	21.2	39.5	3021
Sardarpur	3.98	57.78	25.5	94.2	3819
Manawar	8.09	56.54	29.0	50.0	4569
Dharampuri	8.43	54.61	31.5	88.0	4031
Gandhwani	2.34	87.94	17.4	15.0	9615
Bakaner	5.1	74.96	18.4	25.2	6375
Kukshi	4.93	81.74	34.9	91.7	4515
Nisarpur	8.75	45.85	37.4	145.6	3582
Bagh	1.88	95.02	27.7	42.2	8459
Dahi	3.75	83.84	24.7	51.6	8655

DINDORI

Basic Details on the District

Area (in sq. km)	7470
Total Inhabited Villages	899
Total Habitations	3005
Forest Villages	130
Towns (Class I to IV) and Major Towns	2
No major Town	
Crop Zone :	
Rice Zone (in some parts)	
Soil type :	
Red and Yellow, Medium Black and Skeletal Medium/ Light	
Agri Climatic Zone :	
Northern Hills	
Schedule V Areas :	
Entire Dindori District	

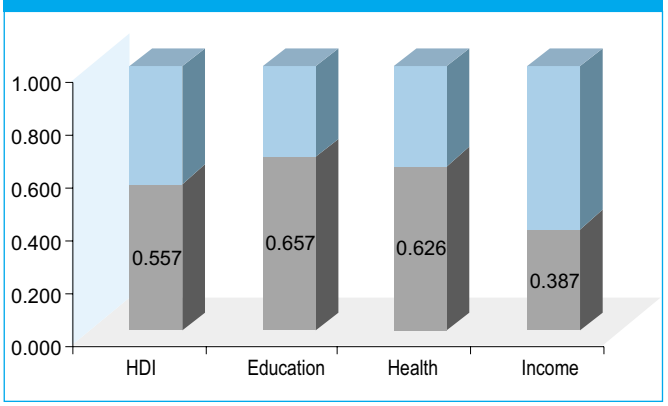
Demography

	1991	2001
Population	658482	579312
Share of Madhya Pradesh Population	1.36%	0.96%
Urban Population	3.5%	4.6%
Population of Scheduled Castes (SC)	5.1%	n.a.
Population of Scheduled Tribes (ST)	66.7%	n.a.
Density of Population (per sq. kms.)	69	78
Decadal Growth (%)	**1981-91**	**1991- 00**
All	24.94	13.23
Rural	n.a.	13.09
Urban	n.a.	16.26

Human Development Indices - 2002

Human Development Index (HDI)	0.557
Rank in Madhya Pradesh : HDI	24
Gender Related Development Index (GDI)	0.617
Rank in Madhya Pradesh : GDI	5

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	398
Tehsils	2
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	n.a.	n.a.
	1991	**2001**
Life Expectancy (years)	58.1	62.6
	1976-81	**1984-90**
Crude Birth Rate	n.a.	n.a.

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	236.44	298.36
	1996	**2000**
FPS per lakh population	n.a.	31

Gender

	1991	2001
Life Expectancy of Females at Birth	58.7	63.8
Child Sex Ratio	980	989
Girl Child Mortality (birth to age 1 year)	n.a.	n.a.
Girl Child Mortality (up to age 5 years)	n.a.	n.a.
Total Fertility Rate	n.a.	n.a.
Gender Ratio : All	985	994
Rural	996	996
Urban	914	944
General non SC/ ST Gender Ratio	962	n.a.
SC Gender Ratio	937	n.a.
ST Gender Ratio	1011	n.a.
Workers Participation Rate - Female	48.4%	55.0%
	2000	
Female Enrolment Rate (Ages 6-14)	86.2%	

Basic Amenities

	2000
Habitations with SDW facility	99.1%
Habitations without 40 lpd water availability	4.6%
Number of villages electrified	958
Percentage of villages not connected with pucca roads	71.9
	1991
Households without access to electricity, SDW and toilet facilities	n.a.

Deprivation

Estimated Poverty Rate (1993-1994)	n.a.
Children as main workers (1991)	n.a.
Children as main and marginal workers (1991)	n.a.
Percentage of safe deliveries (1998-1999)	n.a.
Percentage of children fully immunised (1998-1999)	n.a.

Forests

	1999
Per Capita Forest Area (in hectares)	n.a.
Annual Rate of Afforestation (%) (1993-1999)	n.a.
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra	

Education

	1991	2001
Literacy (%) : All	37.7%	54.5%
Male	55.1%	70.4%
Female	20.2%	38.5%
Rural	30.6%	53.1%
Urban	69.6%	81.7%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	88.2%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

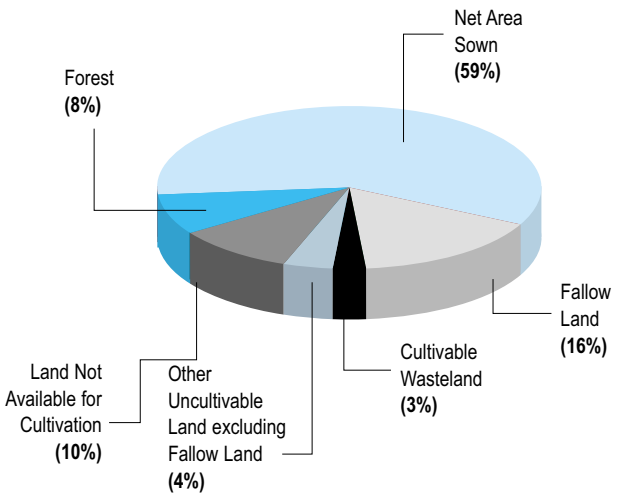
Employment

	1991	2001
Worker Participation Rate :		
All	52.4%	57.1%
Rural	53.2%	58.3%
Urban	30.9%	31.7%
Share of Primary Sector (%)	93.2%	n.a.
Share of Secondary Sector (%)	2.1%	n.a.
Share of Tertiary Sector (%)	4.73%	n.a.
Employment in Registered Industries (2000)		n.a.
Employment Rate of Growth (1991 to 2001)	n.a.	26.8%
Total Employment in Farm Sector (%)	93.1%	90.4
Rural Employment in Non Farm Sector (%)	5.6%	7.7%
Agriculture Labour (%)	21.6%	29.1%

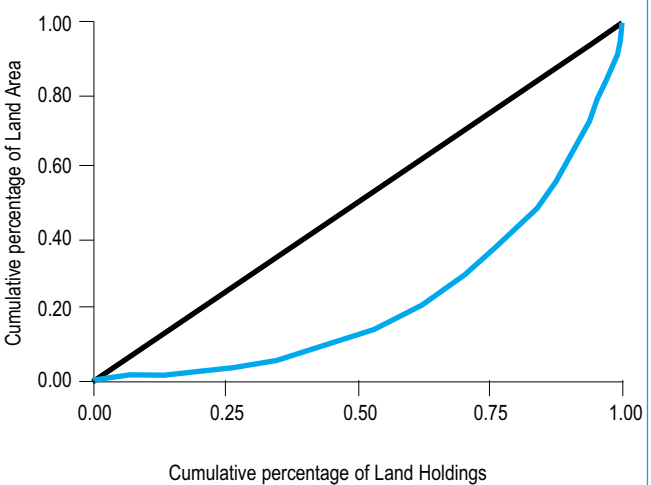
Infrastructure / Facilities

	2001
Middle Schools per lakh population	32.0
High Schools per lakh population	11.0
Rural Population per Primary Health Centre	23019
Population Serviced Sub Health Centre	3019
	2000
Road length per 100 sq. km. (1999)	15.6
Telephone per lakh population	123
Population per Post Office (1994-95)	n.a.
Registered establishments under Factories Act (1997)	n.a.
Per capita consumption of electricity (non industrial) in kwh	7.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	n.a.	238.4
Gross Cropped Area (in 000' ha.)	n.a.	308.1
Double Cropped Area to Net Area Sown	n.a.	29.2
Net Irrigated Area (in 000' ha.)	n.a.	1.0
Gross Irrigated Area (in 000' ha.)	n.a.	1.0
	1992-93	**1998-99**
Agriculture Intensity	n.a.	129.2

Credit

	2000
Credit-Deposit Ratio	49.51
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	n.a.
Crop lending per hectare of irrigated land	n.a.

Habitat

	2001	
Number of towns reporting slums	2	
Urban population residing in slums	0.00%	
Level of ground water development	0.34	
Average annual rainfall (in mm)	1241.00	
	1995	**2000**
Percentage area under wasteland	n.a.	n.a.

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	n.a.	270.0
Pulses Per Capita (Kg)	n.a.	28.3
Oilseeds Per Capita (Kg)	n.a.	46.5
Average Landholding (Ha)	n.a.	n.a.
Gross Irrigated Area ('000 Ha)		1.0
Fertiliser Consumption Per Hectare (Kg)	n.a.	2.36
	1993	**1999**
Cropping Intensity	n.a.	129.2

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	Included in Mandla	57.9%
Gross Cropped Area to Total Area	n.a.	74.8%
Net Irrigated to Net Sown Area	n.a.	0.4%
Cropped Area under Food Grains	n.a.	79.0%
Yield of Food Grains (in kg. per hectare)	n.a.	692
Per Capita Food Production (in kgs.)		298.4

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Dindori	467220	449807	17413	3.7%	54.0%	52.9%	81.5%	38.0%	994	988	27.27	57.56
Shahpura	112092	102643	9449	8.4%	56.5%	54.0%	82.1%	40.4%	993	995	37.09	55.04

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net Net irrigated area to Net Sown area	% Gross Irrigated area to total cropped area	Level of GW Development	Status of ground water
Dindori	804.27	56.8%	70.8%	0.48	125	0.62	0.5	0.063	White
Amarpur	374.03	60.0%	76.0%	0.45	127	0.07	0.05	0.580	White
Karanjia	359.42	76.2%	99.6%	0.5	131	0.53	0.41	0.086	White
Samnapur	390.97	60.4%	79.7%	0.43	132	1.03	0.78	0.582	White
Bajag	368.25	66.4%	89.8%	0.42	135	1.58	1.17	0.510	White
Mehadwani	507.03	52.2%	61.9%	0.47	119	1.07	9.9	0.231	White
Shahpura	777.95	55.1%	68.6%	0.49	125	1.99	1.6	0.482	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Dindori	6.17	60.48	29.47	18.72	4728
Amarpur	3.54	65.72	44.92	41	3149
Karanjia	4.14	73.41	19.48	24.51	4154
Samnapur	2.73	62.7	26.6	20.18	3404
Bajag	5.89	63.95	51.05	25	6450
Mehadwani	1.23	77.3	27.81	11.61	4681
Shahpura	14.56	64.62	23.52	17.03	4571

G U N A

Basic Details on the District

Area (in sq. km)	11065
Total Inhabited Villages	2059
Total Habitations	3500
Forest Villages	1
Towns (Class I to IV) and Major Towns	10
Guna, Ashok Nagar, Raghogarh-Vijaypur	
Crop Zone :	
Wheat Zone	
Soil type :	
Medium Black and Deep Black (Medium/ Heavy)	
Agri Climatic Zone :	
Vindhya Plateau	
Schedule V Areas :	
No Schedule V area	

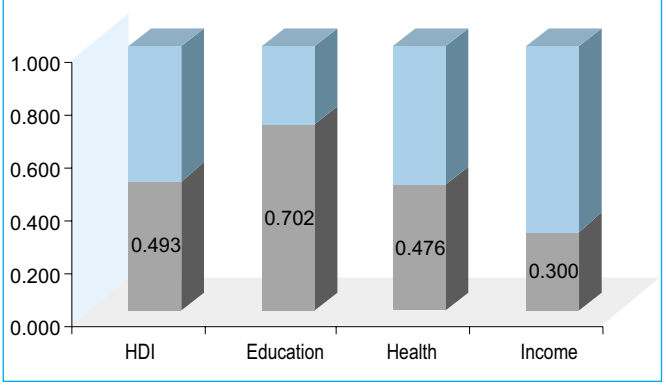
Demography

	1991	2001
Population	1310317	1665503
Share of Madhya Pradesh Population	2.70%	2.76%
Urban Population	19.5%	21.3%
Population of Scheduled Castes (SC)	18.1%	n.a.
Population of Scheduled Tribes (ST)	12.0%	n.a.
Density of Population (per sq. kms.)	118	151
Decadal Growth (%)	**1981-91**	**1991- 00**
All	30.77	27.11
Rural	n.a.	24.27
Urban	n.a.	38.8

Human Development Indices - 2002

Human Development Index (HDI)	0.493
Rank in Madhya Pradesh : HDI	36
Gender Related Development Index (GDI)	0.476
Rank in Madhya Pradesh : GDI	40

Graph on Human Development Index



Administrative Information

Janpad Panchayats	9
Gram Panchayats	728
Tehsils	9
Tribal Blocks	0
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	157	130
	1991	**2001**
Life Expectancy (years)	50.3	53.5
	1976-81	**1984-90**
Crude Birth Rate	36.8	41.4

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	312.98	326.11
	1996	**2000**
FPS per lakh population	16.61	18

Gender

	1991	2001
Life Expectancy of Females at Birth	47.6	50.5
Child Sex Ratio	932	929
Girl Child Mortality (birth to age 1 year)	144	n.a.
Girl Child Mortality (up to age 5 years)	198	n.a.
Total Fertility Rate	5.9	n.a.
Gender Ratio : All	875	885
Rural	875	882
Urban	876	897
General non SC/ ST Gender Ratio	867	n.a.
SC Gender Ratio	874	n.a.
ST Gender Ratio	928	n.a.
Workers Participation Rate - Female	20.5%	29.0%
	2000	
Female Enrolment Rate (Ages 6-14)	85.4%	

Basic Amenities

	2000
Habitations with SDW facility	99.0%
Habitations without 40 lpd water availability	1.0%
Number of villages electrified	2036
Percentage of villages not connected with pucca roads	75.5
	1991
Households without access to electricity, SDW and toilet facilities	29.08

Deprivation

Estimated Poverty Rate (1993-1994)	18.1%
Children as main workers (1991)	3.7%
Children as main and marginal workers (1991)	5.4%
Percentage of safe deliveries (1998-1999)	36.3
Percentage of children fully immunised (1998-1999)	30.7

Forests

	1999
Per Capita Forest Area (in hectares)	0.133
Annual Rate of Afforestation (%) (1993-1999)	-3.21
Major Non-Timber Forest Produce :	
Tendu Leaves, Khair	

Education

	1991	2001
Literacy (%) : All	34.6%	59.9%
Male	48.9%	74.7%
Female	18.0%	43.1%
Rural	27.2%	55.7%
Urban	64.1%	75.0%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	90.9%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

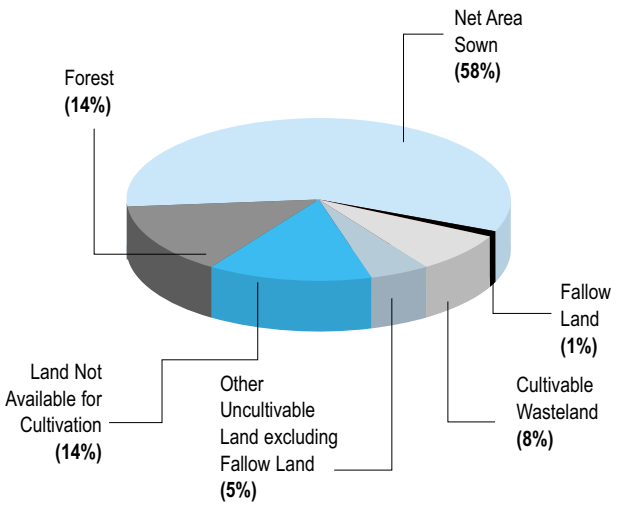
Employment

	1991	2001
Worker Participation Rate :		
All	37.0%	40.9%
Rural	39.2%	44.1%
Urban	28.3%	29.4%
Share of Primary Sector (%)	79.1%	n.a.
Share of Secondary Sector (%)	6.8%	n.a.
Share of Tertiary Sector (%)	14.11%	n.a.
Employment in Registered Industries (2000)		8276
Employment Rate of Growth (1991 to 2001)	n.a.	40.5%
Total Employment in Farm Sector (%)	79.0%	78.14
Rural Employment in Non Farm Sector (%)	8.6%	10.0%
Agriculture Labour (%)	18.8%	28.1%

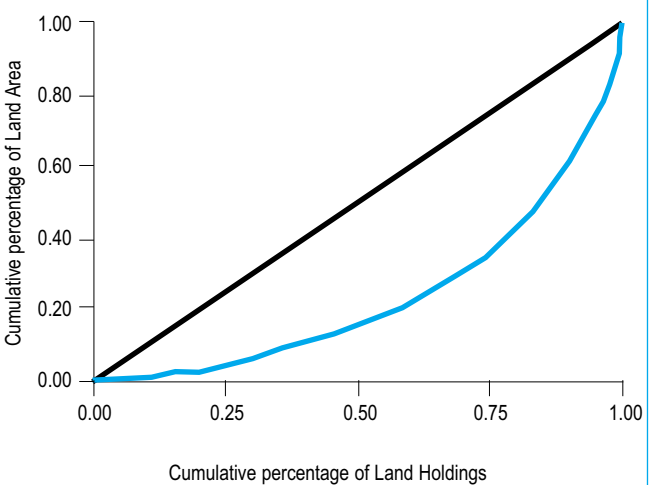
Infrastructure / Facilities

	2001
Middle Schools per lakh population	43.0
High Schools per lakh population	7.6
Rural Population per Primary Health Centre	54615
Population Serviced Sub Health Centre	6068
	2000
Road length per 100 sq. km. (1999)	12.6
Telephone per lakh population	1005
Population per Post Office (1994-95)	7500
Registered establishments under Factories Act (1997)	86
Per capita consumption of electricity (non industrial) in kwh	179.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	567.0	633.7
Gross Cropped Area (in 000' ha.)	592.8	745.9
Double Cropped Area to Net Area Sown	4.6	17.7
Net Irrigated Area (in 000' ha.)	28.6	154.2
Gross Irrigated Area (in 000' ha.)	28.9	154.5
	1992-93	**1998-99**
Agriculture Intensity	110.7	117.7

Credit

	2000
Credit-Deposit Ratio	60.83
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	527.8
Crop lending per hectare of irrigated land	2678.4

Habitat

	2001	
Number of towns reporting slums	10	
Urban population residing in slums	14.52%	
Level of ground water development	24.82	
Average annual rainfall (in mm)	1052.80	
	1995	**2000**
Percentage area under wasteland	16.8%	34.89%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	215.3	201.0
Pulses Per Capita (Kg)	97.7	125.1
Oilseeds Per Capita (Kg)	47.3	61.7
Average Landholding (Ha)	3.4	2.79
Gross Irrigated Area ('000 Ha)		154.5
Fertiliser Consumption Per Hectare (Kg)	22.1	21.72
	1993	**1999**
Cropping Intensity	111	117.7

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	51.6%	57.7%
Gross Cropped Area to Total Area	54.0%	67.9%
Net Irrigated to Net Sown Area	5.0%	24.3%
Cropped Area under Food Grains	78.3%	65.4%
Yield of Food Grains (in kg. per hectare)	451	1061
Per Capita Food Production (in kgs.)		326.1

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Guna	446723	309591	137132	30.7%	60.3%	51.8%	78.4%	44.8%	892	922	22.74	39.40
Ashoknagar	227363	169681	57682	25.4%	64.7%	61.1%	74.9%	47.6%	880	930	30.05	33.99
Mungaoli	182502	162966	19536	10.7%	61.3%	59.0%	80.1%	43.9%	869	929	36.63	42.95
Raghogarh	210197	161004	49193	23.4%	52.1%	47.0%	68.5%	33.7%	898	943	23.10	45.11
Chachaura	106135	88832	17303	16.3%	62.4%	58.7%	80.6%	46.7%	892	910	25.73	49.31
Aron	118130	96900	21230	18.0%	59.5%	58.9%	62.0%	44.0%	871	928	37.22	40.45
Isagarh	148597	138250	10347	7.0%	63.6%	62.7%	75.3%	46.7%	884	924	35.87	37.64
Kumbharaj	95411	81412	13999	14.7%	52.3%	49.4%	68.9%	32.5%	887	942	27.54	48.98
Chanderi	130445	102132	28313	21.7%	60.5%	56.1%	75.6%	42.6%	884	942	25.94	40.34

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Guna	1520.4	49.6%	53.7%	0.56	108	11.9	11	15.081	White
Bamori	1575.2	37.3%	47.3%	0.56	127	35.7	28.5	76.031	White
Chachaura	1149.71	67.4%	82.0%	0.56	122	20.27	16.74	16.218	Grey
Raghogarh	1113.27	58.2%	75.3%	0.48	129	33.42	26.05	30.513	White
Aron	812.75	63.9%	66.4%	0.68	104	6.27	6.02	16.340	White
Ashoknagar	1237.48	81.1%	88.2%	0.72	109	12.4	11.4	25.858	White
Isagarh	1078.35	73.9%	78.2%	0.71	106	9	8.51	9.347	White
Mungaoli	1228.93	68.1%	73.2%	0.64	107	14.24	13.28	30.513	White
Chanderi	1034	35.9%	42.0%	0.43	117	24.42	20.91	29.636	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Guna	18.61	22.1	12.37	56.02	4975
Bamori	22.27	27.66	9.9	16.51	5202
Chachaura	13.17	12.9	11.39	68.6	6573
Raghogarh	17.4	14.31	16.62	43.85	4949
Aron	22.99	6.27	8.49	68.75	4783
Ashoknagar	27.88	3.28	8.08	54.24	4633
Isagarh	25.99	11.84	9.46	71.26	3818
Mungaoli	19.97	11.21	11.31	11.79	4870
Chanderi	15.43	17.13	13.15	40.88	4800

GWALIOR

Basic Details on the District

Area (in sq. km)	4560
Total Inhabited Villages	706
Total Habitations	942
Forest Villages	0
Towns (Class I to IV) and Major Towns	9
Gwalior, Dabra	
Crop Zone :	
Wheat Jowar	
Soil type :	
Alluvial (Light)	
Agri Climatic Zone :	
Gird Region	
Schedule V Areas :	
No Schedule V area	

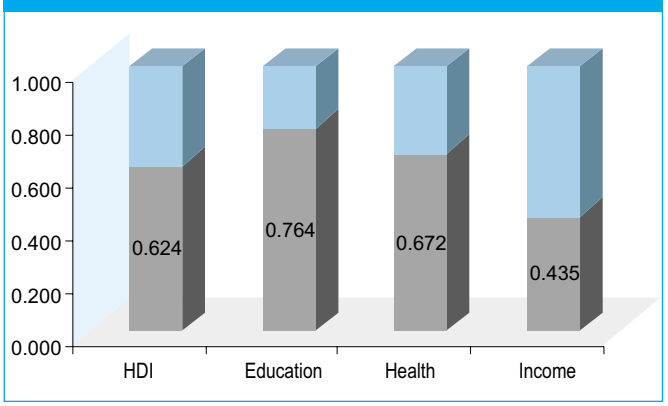
Demography

	1991	2001
Population	1293567	1629881
Share of Madhya Pradesh Population	2.66%	2.70%
Urban Population	62.9%	60.3%
Population of Scheduled Castes (SC)	20.0%	n.a.
Population of Scheduled Tribes (ST)	3.1%	n.a.
Density of Population (per sq. kms.)	284	357
Decadal Growth (%)	**1981-91**	**1991- 00**
All	27.97	26.00
Rural	n.a.	34.83
Urban	n.a.	20.8

Human Development Indices - 2002

Human Development Index (HDI)	0.624
Rank in Madhya Pradesh : HDI	8
Gender Related Development Index (GDI)	0.527
Rank in Madhya Pradesh : GDI	30

Graph on Human Development Index



Administrative Information

Janpad Panchayats	5
Gram Panchayats	298
Tehsils	3
Tribal Blocks	0
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	133	70
	1991	**2001**
Life Expectancy (years)	61.9	65.3
	1976-81	**1984-90**
Crude Birth Rate	36.7	35.1

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	200.83	217.44
	1996	**2000**
FPS per lakh population	25.52	24

Gender

	1991	2001
Life Expectancy of Females at Birth	61.0	61.5
Child Sex Ratio	888	849
Girl Child Mortality (birth to age 1 year)	103	n.a.
Girl Child Mortality (up to age 5 years)	126	n.a.
Total Fertility Rate	4.7	n.a.
Gender Ratio : All	831	847
Rural	813	833
Urban	842	857
General non SC/ ST Gender Ratio	833	n.a.
SC Gender Ratio	817	n.a.
ST Gender Ratio	891	n.a.
Workers Participation Rate - Female	9.8%	14.4%
	2000	
Female Enrolment Rate (Ages 6-14)	86.9%	

Basic Amenities

	2000
Habitations with SDW facility	99.8%
Habitations without 40 lpd water availability	0.2%
Number of villages electrified	559
Percentage of villages not connected with pucca roads	37.8
	1991
Households without access to electricity, SDW and toilet facilities	15.79

Deprivation

Estimated Poverty Rate (1993-1994)	24.2%
Children as main workers (1991)	2.3%
Children as main and marginal workers (1991)	2.9%
Percentage of safe deliveries (1998-1999)	61.8
Percentage of children fully immunised (1998-1999)	52.6

Forests

	1999
Per Capita Forest Area (in hectares)	0.084
Annual Rate of Afforestation (%) (1993-1999)	0.98
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	58.4%	69.8%
Male	70.9%	80.8%
Female	43.1%	56.8%
Rural	35.7%	53.7%
Urban	71.2%	79.8%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	85.6%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

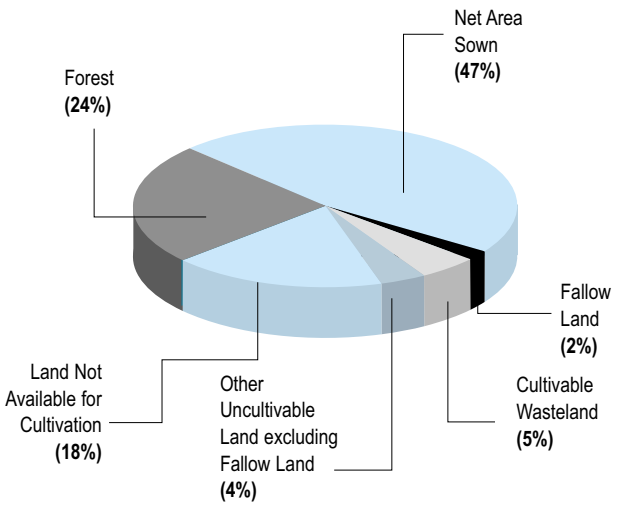
Employment

	1991	2001
Worker Participation Rate :		
All	30.2%	32.5%
Rural	35.6%	38.3%
Urban	27.1%	28.7%
Share of Primary Sector (%)	43.3%	n.a.
Share of Secondary Sector (%)	18.0%	n.a.
Share of Tertiary Sector (%)	38.69%	n.a.
Employment in Registered Industries (2000)		29954
Employment Rate of Growth (1991 to 2001)	n.a.	35.5%
Total Employment in Farm Sector (%)	42.7%	40.34
Rural Employment in Non Farm Sector (%)	12.4%	19.5%
Agriculture Labour (%)	9.5%	13.4%

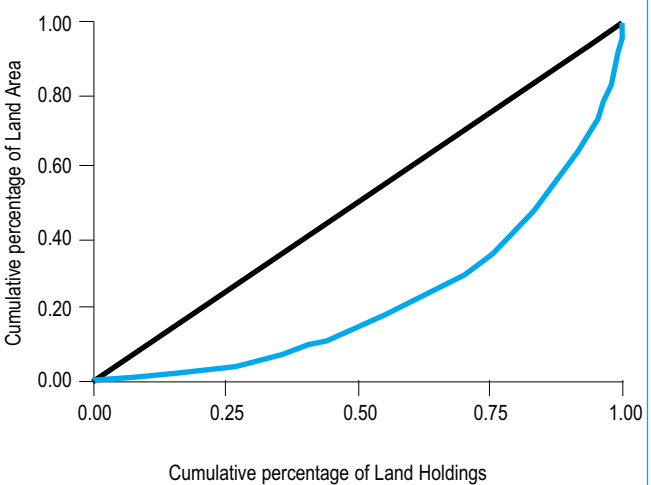
Infrastructure / Facilities

	2001
Middle Schools per lakh population	58.8
High Schools per lakh population	24.7
Rural Population per Primary Health Centre	43103
Population Serviced Sub Health Centre	6401
	2000
Road length per 100 sq. km. (1999)	29.2
Telephone per lakh population	4000
Population per Post Office (1994-95)	8161
Registered establishments under Factories Act (1997)	571
Per capita consumption of electricity (non industrial) in kwh	487.7

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	251.0	216.6
Gross Cropped Area (in 000' ha.)	272.4	258.6
Double Cropped Area to Net Area Sown	8.5	19.4
Net Irrigated Area (in 000' ha.)	88.2	123.9
Gross Irrigated Area (in 000' ha.)	104.6	156.8
	1992-93	**1998-99**
Agriculture Intensity	108.1	119.4

Credit

	2000
Credit-Deposit Ratio	46.04
Commercial Banks (per 1000 population)	0.06
Crop lending per hectare of cultivated land	1563.2
Crop lending per hectare of irrigated land	3708.6

Habitat

	2001	
Number of towns reporting slums	9	
Urban population residing in slums	19.69%	
Level of ground water development	19.89	
Average annual rainfall (in mm)	858.10	
	1995	**2000**
Percentage area under wasteland	23.7%	26.69%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	167.6	194.9
Pulses Per Capita (Kg)	33.2	22.6
Oilseeds Per Capita (Kg)	50.0	36.7
Average Landholding (Ha)	2.7	2.44
Gross Irrigated Area ('000 Ha)		156.8
Fertiliser Consumption Per Hectare (Kg)	70.9	98.55
	1993	**1999**
Cropping Intensity	108	119.4

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	48.1%	47.5%
Gross Cropped Area to Total Area	52.2%	56.7%
Net Irrigated to Net Sown Area	35.1%	57.2%
Cropped Area under Food Grains	81.1%	67.5%
Yield of Food Grains (in kg. per hectare)	1096	1939
Per Capita Food Production (in kgs.)		217.4

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Gird (Gwalior)	1177055	311255	865800	73.6%	73.4%	52.3%	80.6%	62.1%	849	834	6.75	30.10
Bhitarwar	182798	157998	24800	13.6%	56.9%	55.7%	64.4%	37.5%	847	874	33.37	42.27
Dabra (Pichhore)	270028	177297	92731	34.3%	62.4%	54.5%	76.9%	45.4%	839	891	21.43	36.39

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Morar	807.78	54.2%	55.7%	0.42	103	36.43	36.37	33.687	White
Ghatigaon	1666.63	18.0%	18.9%	0.28	105	48.12	48.31	16.868	White
Dabra	910.88	72.7%	80.9%	0.5	111	51.11	53.87	22.561	White
Bhitarwar	850.74	76.7%	91.2%	0.49	119	57.27	61.69	14.295	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Morar	25.46	0.98	19.68	21.62	3755
Ghatigaon	13.22	14.17	16.02	35.34	3433
Dabra	27.8	5.06	16.8	27.63	4369
Bhitarwar	25.16	5.05	17.28	32.91	3488

HARDA

Basic Details on the District

Area (in sq. km)	3330
Total Inhabited Villages	497
Total Habitations	632
Forest Villages	45
Towns (Class I to IV) and Major Towns	3
Harda	
Crop Zone :	
Wheat Zone	
Soil type :	
Deep Black (Deep)	
Agri Climatic Zone :	
Central Narmada Valley	
Schedule V Areas :	
No Schedule V area	

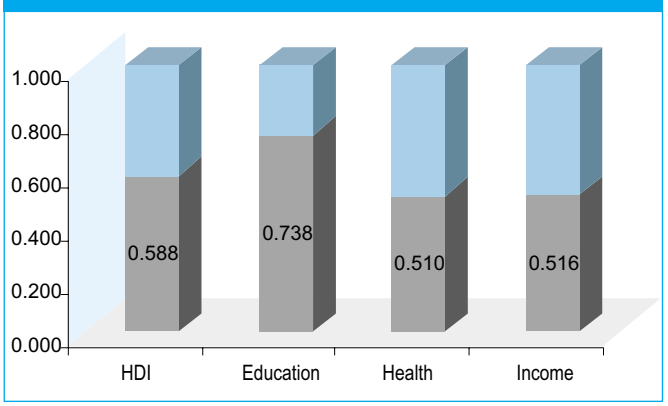
Demography

	1991	2001
Population	380762	474174
Share of Madhya Pradesh Population	0.78%	0.79%
Urban Population	20.4%	21.3%
Population of Scheduled Castes (SC)	16.8%	n.a.
Population of Scheduled Tribes (ST)	24.2%	n.a.
Density of Population (per sq. kms.)	114	142
Decadal Growth (%)	**1981-91**	**1991- 00**
All	29.14	24.53
Rural	n.a.	23.06
Urban	n.a.	30.29

Human Development Indices - 2002

Human Development Index (HDI)	0.588
Rank in Madhya Pradesh : HDI	12
Gender Related Development Index (GDI)	0.579
Rank in Madhya Pradesh : GDI	14

Graph on Human Development Index



Administrative Information

Janpad Panchayats	3
Gram Panchayats	181
Tehsils	3
Tribal Blocks	0
Legislative Assembly Seats	2

Health

	1981	1991
Infant Mortality Rate	n.a.	n.a.
	1991	**2001**
Life Expectancy (years)	53.4	55.6
	1976-81	**1984-90**
Crude Birth Rate	n.a.	n.a.

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	338.93	459.44
	1996	**2000**
FPS per lakh population	n.a.	35

Gender

	1991	2001
Life Expectancy of Females at Birth	52.0	53.4
Child Sex Ratio	938	926
Girl Child Mortality (birth to age 1 year)	n.a.	n.a.
Girl Child Mortality (up to age 5 years)	n.a.	n.a.
Total Fertility Rate	n.a.	n.a.
Gender Ratio : All	914	919
Rural	920	924
Urban	894	901
General non SC/ ST Gender Ratio	906	n.a.
SC Gender Ratio	905	n.a.
ST Gender Ratio	941	n.a.
Workers Participation Rate - Female	31.1%	36.4%
	2000	
Female Enrolment Rate (Ages 6-14)	83.9%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	445
Percentage of villages not connected with pucca roads	66.5
	1991
Households without access to electricity, SDW and toilet facilities	n.a.

Deprivation

Estimated Poverty Rate (1993-1994)	n.a.
Children as main workers (1991)	n.a.
Children as main and marginal workers (1991)	n.a.
Percentage of safe deliveries (1998-1999)	n.a.
Percentage of children fully immunised (1998-1999)	n.a.

Forests

	1999
Per Capita Forest Area (in hectares)	n.a.
Annual Rate of Afforestation (%) (1993-1999)	n.a.
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	48.8%	66.8%
Male	62.5%	78.4%
Female	33.8%	54.1%
Rural	41.9%	61.9%
Urban	74.5%	84.0%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	87.6%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

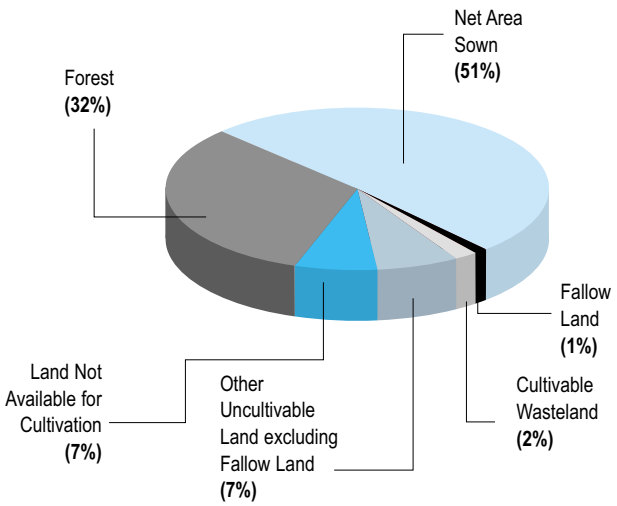
Employment

	1991	2001
Worker Participation Rate :		
All	42.5%	44.9%
Rural	46.4%	49.4%
Urban	27.2%	28.3%
Share of Primary Sector (%)	81.0%	n.a.
Share of Secondary Sector (%)	6.4%	n.a.
Share of Tertiary Sector (%)	12.61%	n.a.
Employment in Registered Industries (2000)		n.a.
Employment Rate of Growth (1991 to 2001)	n.a.	31.8%
Total Employment in Farm Sector (%)	80.9%	80.37
Rural Employment in Non Farm Sector (%)	9.1%	9.5%
Agriculture Labour (%)	39.0%	40.6%

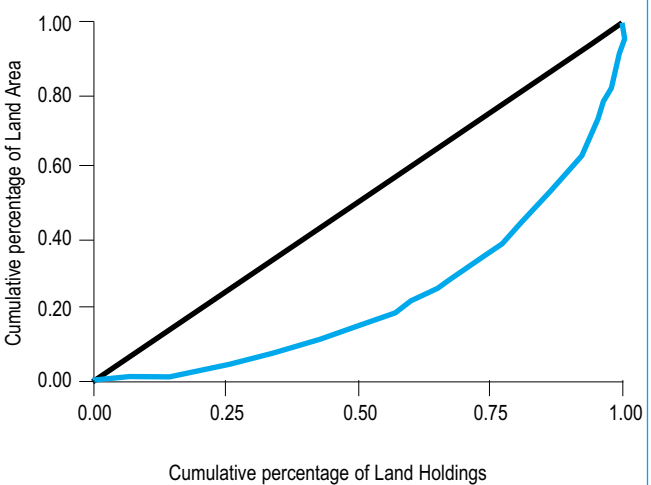
Infrastructure / Facilities

	2001
Middle Schools per lakh population	27.2
High Schools per lakh population	7.3
Rural Population per Primary Health Centre	53298
Population Serviced Sub Health Centre	6116
	2000
Road length per 100 sq. km. (1999)	12.2
Telephone per lakh population	1512
Population per Post Office (1994-95)	n.a.
Registered establishments under Factories Act (1997)	n.a.
Per capita consumption of electricity (non industrial) in kwh	148.7

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	0.0	169.8
Gross Cropped Area (in 000' ha.)	n.a.	284.9
Double Cropped Area to Net Area Sown	n.a.	67.8
Net Irrigated Area (in 000' ha.)	n.a.	127.2
Gross Irrigated Area (in 000' ha.)	n.a.	127.2
	1992-93	**1998-99**
Agriculture Intensity	n.a.	167.8

Credit

	2000
Credit-Deposit Ratio	87.73
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	n.a.
Crop lending per hectare of irrigated land	n.a.

Habitat

	2001	
Number of towns reporting slums	3	
Urban population residing in slums	0.00%	
Level of ground water development	18.57	
Average annual rainfall (in mm)	1417.00	
	1995	**2000**
Percentage area under wasteland	n.a.	n.a.

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	n.a.	370.0
Pulses Per Capita (Kg)	n.a.	89.5
Oilseeds Per Capita (Kg)	n.a.	288.9
Average Landholding (Ha)	n.a.	n.a.
Gross Irrigated Area ('000 Ha)		127.2
Fertiliser Consumption Per Hectare (Kg)	n.a.	72.2
	1993	**1999**
Cropping Intensity	n.a.	167.8

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	Included in Hoshangabad	51.4%
Gross Cropped Area to Total Area	n.a.	86.2%
Net Irrigated to Net Sown Area	n.a.	74.9%
Cropped Area under Food Grains	n.a.	41.2%
Yield of Food Grains (in kg. per hectare)	n.a.	1774
Per Capita Food Production (in kgs.)		459.4

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Harda	190264	125838	64426	33.9%	72.6%	66.1%	84.8%	61.3%	908	897	37.66	43.90
Khirkiya	138543	121060	17483	12.6%	60.0%	57.0%	79.7%	46.6%	927	948	39.97	47.69
Timrani	145367	126189	19178	13.2%	65.5%	62.4%	84.9%	51.8%	925	940	45.25	43.64

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Khirkiya	794.37	67.1%	89.5%	0.55	133	43.64	32.64	49.451	White
Harda	991.72	61.9%	104.8%	0.59	169	74.96	44.25	14.768	White
Timarni	706.05	75.4%	118.7%	0.62	158	67.07	42.58	9.814	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Khirkiya	16.06	33.36	12.71	26.95	3872
Harda	21.04	23.49	12.71	22.67	3248
Timarni	19.21	19.69	15.86	26.49	3416

HOSHANGABAD

Basic Details on the District

Area (in sq. km)	6707
Total Inhabited Villages	923
Total Habitations	1258
Forest Villages	63
Towns (Class I to IV) and Major Towns	11
Hoshangabad, Itarsi, Piparia	
Crop Zone :	
Wheat Zone	
Soil type :	
Deep Black (Deep)	
Agri Climatic Zone :	
Central Narmada Valley	
Schedule V Areas :	
Kesla Tribal Block of Itarsi Tehsil	

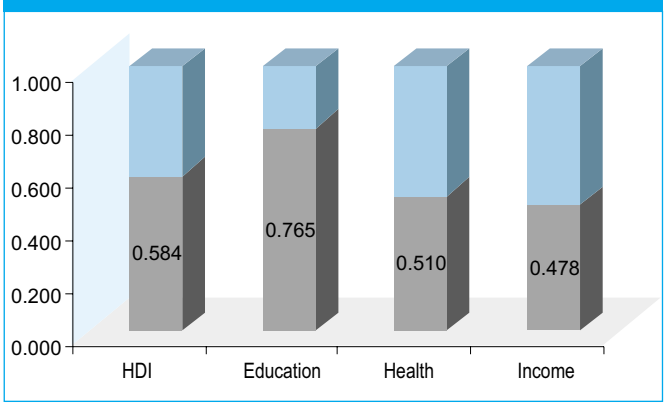
Demography

	1991	2001
Population	886449	1085011
Share of Madhya Pradesh Population	1.83%	1.80%
Urban Population	30.3%	30.9%
Population of Scheduled Castes (SC)	16.0%	n.a.
Population of Scheduled Tribes (ST)	14.4%	n.a.
Density of Population (per sq. kms.)	132	162
Decadal Growth (%)	**1981-91**	**1991- 00**
All	25.01	22.40
Rural	n.a.	21.33
Urban	n.a.	24.85

Human Development Indices - 2002

Human Development Index (HDI)	0.589
Rank in Madhya Pradesh : HDI	14
Gender Related Development Index (GDI)	0.530
Rank in Madhya Pradesh : GDI	29

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	391
Tehsils	7
Tribal Blocks	1
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	164	109
	1991	**2001**
Life Expectancy (years)	53.4	55.6
	1976-81	**1984-90**
Crude Birth Rate	34.9	38.0

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	338.93	412.27
	1996	**2000**
FPS per lakh population	30.94	28

Gender

	1991	2001
Life Expectancy of Females at Birth	52.0	54.0
Child Sex Ratio	929	927
Girl Child Mortality (birth to age 1 year)	139	n.a.
Girl Child Mortality (up to age 5 years)	183	n.a.
Total Fertility Rate	5.4	n.a.
Gender Ratio : All	892	898
Rural	896	899
Urban	883	895
General non SC/ ST Gender Ratio	883	n.a.
SC Gender Ratio	898	n.a.
ST Gender Ratio	932	n.a.
Workers Participation Rate - Female	18.9%	20.2%
	2000	
Female Enrolment Rate (Ages 6-14)	87.1%	

Basic Amenities

	2000
Habitations with SDW facility	99.4%
Habitations without 40 lpd water availability	0.6%
Number of villages electrified	877
Percentage of villages not connected with pucca roads	66.5
	1991
Households without access to electricity, SDW and toilet facilities	17.74

Deprivation

Estimated Poverty Rate (1993-1994)	39.7%
Children as main workers (1991)	4.3%
Children as main and marginal workers (1991)	5.9%
Percentage of safe deliveries (1998-1999)	42.6
Percentage of children fully immunised (1998-1999)	71

Forests

	1999
Per Capita Forest Area (in hectares)	0.318
Annual Rate of Afforestation (%) (1993-1999)	-0.19
Major Non-Timber Forest Produce :	
Tendu Leaves, Aonla, Baheda, Mahua Flower, Achar Guthli, Mahua Gully, Charota Seeds, Mango Guthli	

Education

	1991	2001
Literacy (%) : All	54.1%	70.4%
Male	67.2%	81.4%
Female	39.3%	58.0%
Rural	42.8%	63.3%
Urban	79.0%	85.2%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	91.4%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

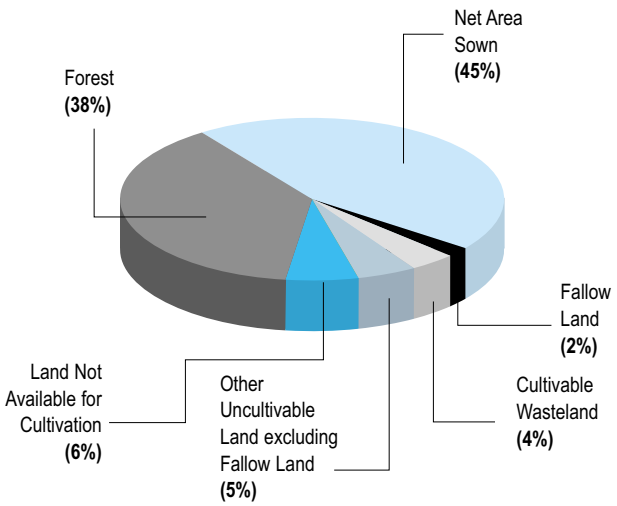
Employment

	1991	2001
Worker Participation Rate :		
All	35.3%	35.6%
Rural	38.8%	39.0%
Urban	27.3%	28.2%
Share of Primary Sector (%)	66.8%	n.a.
Share of Secondary Sector (%)	10.6%	n.a.
Share of Tertiary Sector (%)	22.63%	n.a.
Employment in Registered Industries (2000)		10619
Employment Rate of Growth (1991 to 2001)	n.a.	23.5%
Total Employment in Farm Sector (%)	66.6%	63.38
Rural Employment in Non Farm Sector (%)	14.8%	18.0%
Agriculture Labour (%)	29.6%	34.8%

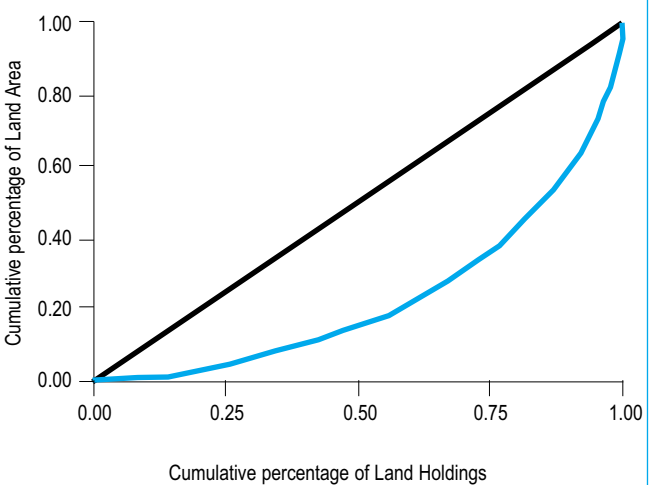
Infrastructure / Facilities

	2001
Middle Schools per lakh population	24.1
High Schools per lakh population	11.0
Rural Population per Primary Health Centre	46828
Population Serviced Sub Health Centre	5240
	2000
Road length per 100 sq. km. (1999)	17.6
Telephone per lakh population	1626
Population per Post Office (1994-95)	5687
Registered establishments under Factories Act (1997)	289
Per capita consumption of electricity (non industrial) in kwh	128.9

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	437.2	293.7
Gross Cropped Area (in 000' ha.)	448.1	478.3
Double Cropped Area to Net Area Sown	2.5	62.9
Net Irrigated Area (in 000' ha.)	44.0	232.5
Gross Irrigated Area (in 000' ha.)	44.0	232.5
	1992-93	**1998-99**
Agriculture Intensity	148.2	162.9

Credit

	2000
Credit-Deposit Ratio	60.52
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	1858.7
Crop lending per hectare of irrigated land	39770.0

Habitat

	2001	
Number of towns reporting slums	11	
Urban population residing in slums	7.34%	
Level of ground water development	11.75	
Average annual rainfall (in mm)	1294.00	
	1995	**2000**
Percentage area under wasteland	9.3%	9.59%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	234.1	331.7
Pulses Per Capita (Kg)	104.8	80.6
Oilseeds Per Capita (Kg)	113.1	174.5
Average Landholding (Ha)	4.0	3.74
Gross Irrigated Area ('000 Ha)		232.5
Fertiliser Consumption Per Hectare (Kg)	87.3	72.33
	1993	**1999**
Cropping Intensity	148	162.9

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	43.8%	43.9%
Gross Cropped Area to Total Area	44.8%	71.5%
Net Irrigated to Net Sown Area	10.1%	79.2%
Cropped Area under Food Grains	67.9%	52.6%
Yield of Food Grains (in kg. per hectare)	1766	1707
Per Capita Food Production (in kgs.)		412.3

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Seoni Malwa	173014	146819	26195	15.1%	70.4%	67.6%	85.5%	57.5%	908	945	42.23	40.64
Hoshangabad	163618	66261	97357	59.5%	78.9%	70.6%	84.4%	68.6%	884	906	22.55	30.33
Sohagpur	129685	107356	22329	17.2%	61.1%	56.4%	82.8%	46.3%	891	918	37.09	35.70
Itarsi	239925	120372	119553	49.8%	77.4%	66.9%	87.3%	67.3%	907	937	26.30	31.71
Babai	116302	101715	14587	12.5%	63.5%	61.5%	77.5%	48.4%	900	925	44.19	40.64
Pipariya	155975	100234	55741	35.7%	69.7%	60.9%	84.8%	57.6%	884	913	27.72	35.66
Bankhedi	106492	106492	-	-	60.0%	60.0%	0.0%	45.6%	905	940	48.46	38.93

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Hoshangabad	529.37	77.8%	129.8%	0.51	167	85.79	51.39	8.369	White
Babai	581.67	75.0%	106.8%	0.51	142	65.25	45.83	6.626	White
Kesla	666.1	34.6%	49.5%	0.3	143	53.93	37.68	6.149	White
Sohagpur	598.95	68.7%	101.9%	0.49	148	64.04	43.19	12.797	White
Bankhedi	628.1	59.3%	86.9%	0.44	146	60.84	41.53	39.461	White
Pipariya	749.21	47.5%	72.2%	0.45	152	68.18	44.84	29.900	White
Seoni Malwa	1026.28	68.1%	109.7%	0.59	161	71.71	44.52	3.407	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Hoshangabad	16.96	5.7	37.59	22.22	3003
Babai	13.67	9.67	19.77	11.43	5048
Kesla	12.86	39.11	9.46	25.93	1332
Sohagpur	18.41	12.04	12.02	18.29	5208
Bankhedi	20.85	17.49	11.14	12.3	3784
Pipariya	18.74	18.08	28.7	26.39	3889
Seoni Malwa	16.46	19.7	19.2	27.23	3940

INDORE

Basic Details on the District

Area (in sq. km)	3898
Total Inhabited Villages	624
Total Habitations	898
Forest Villages	4
Towns (Class I to IV) and Major Towns	10
Indore, Mau	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
No Schedule V area	

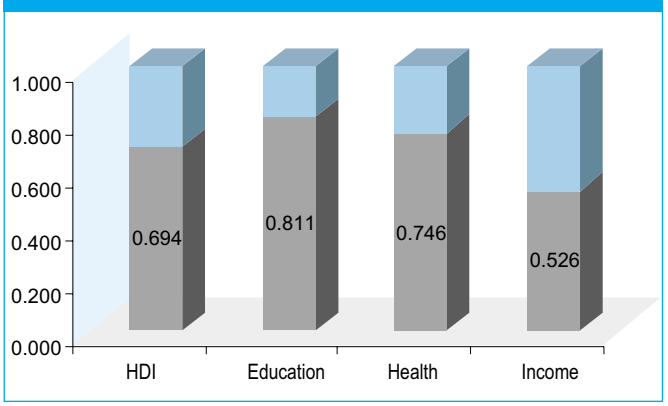
Demography

	1991	2001
Population	1835915	2585321
Share of Madhya Pradesh Population	3.78%	4.28%
Urban Population	69.4%	71.6%
Population of Scheduled Castes (SC)	16.7%	n.a.
Population of Scheduled Tribes (ST)	5.5%	n.a.
Density of Population (per sq. kms.)	471	663
Decadal Growth (%)	**1981-91**	**1991- 00**
All	30.26	40.82
Rural	n.a.	30.93
Urban	n.a.	45.18

Human Development Indices - 2002

Human Development Index (HDI)	0.694
Rank in Madhya Pradesh : HDI	1
Gender Related Development Index (GDI)	0.581
Rank in Madhya Pradesh : GDI	13

Graph on Human Development Index



Administrative Information

Janpad Panchayats	4
Gram Panchayats	304
Tehsils	4
Tribal Blocks	0
Legislative Assembly Seats	8

Health

	1981	1991
Infant Mortality Rate	80	75
	1991	**2001**
Life Expectancy (years)	66.5	69.7
	1976-81	**1984-90**
Crude Birth Rate	33.1	29.6

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	177.57	164.07
	1996	**2000**
FPS per lakh population	22.19	19

Gender

	1991	2001
Life Expectancy of Females at Birth	64.4	65.6
Child Sex Ratio	940	913
Girl Child Mortality (birth to age 1 year)	69	n.a.
Girl Child Mortality (up to age 5 years)	97	n.a.
Total Fertility Rate	3.6	n.a.
Gender Ratio : All	906	911
Rural	919	937
Urban	900	901
General non SC/ ST Gender Ratio	903	n.a.
SC Gender Ratio	919	n.a.
ST Gender Ratio	910	n.a.
Workers Participation Rate - Female	16.1%	18.8%
	2000	
Female Enrolment Rate (Ages 6-14)	93.5%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.1%
Number of villages electrified	620
Percentage of villages not connected with pucca roads	49.3
	1991
Households without access to electricity, SDW and toilet facilities	2.55

Deprivation

Estimated Poverty Rate (1993-1994)	32.8%
Children as main workers (1991)	2.7%
Children as main and marginal workers (1991)	3.1%
Percentage of safe deliveries (1998-1999)	72
Percentage of children fully immunised (1998-1999)	68.9

Forests

	1999
Per Capita Forest Area (in hectares)	0.019
Annual Rate of Afforestation (%) (1993-1999)	-2.47
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	66.3%	74.8%
Male	78.0%	84.7%
Female	53.4%	64.0%
Rural	43.7%	58.0%
Urban	75.9%	81.2%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	88.6%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

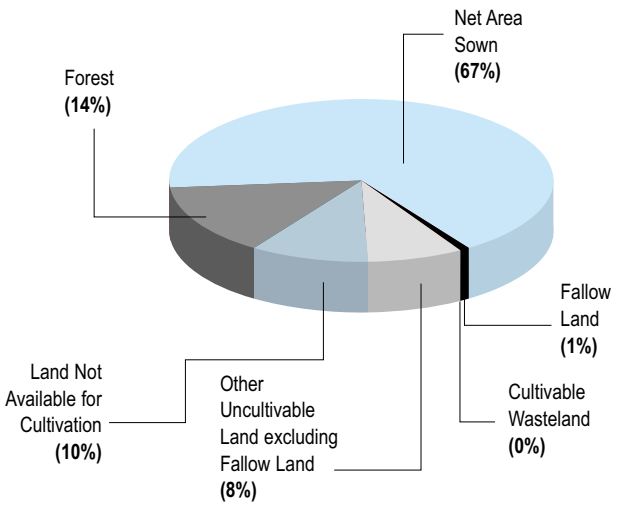
Employment

	1991	2001
Worker Participation Rate :		
All	34.3%	36.2%
Rural	43.9%	45.7%
Urban	30.1%	32.1%
Share of Primary Sector (%)	34.3%	n.a.
Share of Secondary Sector (%)	22.8%	n.a.
Share of Tertiary Sector (%)	42.85%	n.a.
Employment in Registered Industries (2000)		86298
Employment Rate of Growth (1991 to 2001)	n.a.	41.3%
Total Employment in Farm Sector (%)	34.2%	31.67
Rural Employment in Non Farm Sector (%)	18.5%	21.6%
Agriculture Labour (%)	14.8%	14.9%

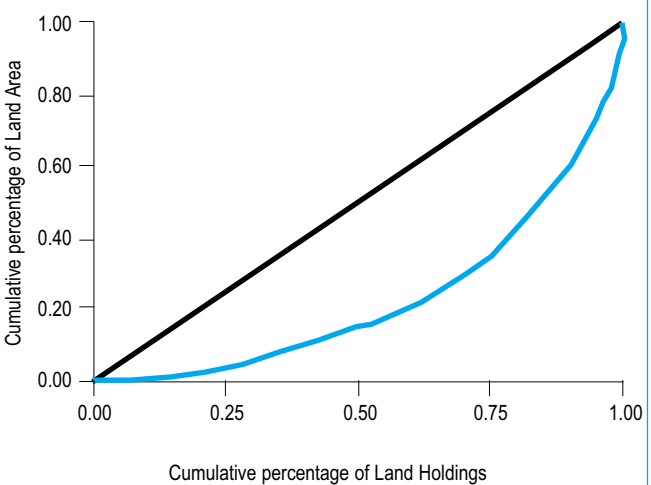
Infrastructure / Facilities

	2001
Middle Schools per lakh population	41.5
High Schools per lakh population	22.5
Rural Population per Primary Health Centre	28270
Population Serviced Sub Health Centre	6622
	2000
Road length per 100 sq. km. (1999)	38.4
Telephone per lakh population	6150
Population per Post Office (1994-95)	12172
Registered establishments under Factories Act (1997)	1684
Per capita consumption of electricity (non industrial) in kwh	2210.6

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	257.1	257.1
Gross Cropped Area (in 000' ha.)	304.9	448.6
Double Cropped Area to Net Area Sown	18.6	74.5
Net Irrigated Area (in 000' ha.)	43.3	160.1
Gross Irrigated Area (in 000' ha.)	44.9	160.1
	1992-93	**1998-99**
Agriculture Intensity	142.2	174.5

Credit

	2000
Credit-Deposit Ratio	101.76
Commercial Banks (per 1000 population)	0.09
Crop lending per hectare of cultivated land	2045.7
Crop lending per hectare of irrigated land	5779.0

Habitat

	2001	
Number of towns reporting slums	10	
Urban population residing in slums	14.03%	
Level of ground water development	97.60	
Average annual rainfall (in mm)	980.00	
	1995	**2000**
Percentage area under wasteland	18.6%	15.30%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	148.0	148.1
Pulses Per Capita (Kg)	29.5	16.0
Oilseeds Per Capita (Kg)	102.9	107.8
Average Landholding (Ha)	3.7	2.96
Gross Irrigated Area ('000 Ha)		160.1
Fertiliser Consumption Per Hectare (Kg)	68.8	92.92
	1993	**1999**
Cropping Intensity	142	174.5

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	67.1%	67.1%
Gross Cropped Area to Total Area	79.6%	117.1%
Net Irrigated to Net Sown Area	16.8%	62.3%
Cropped Area under Food Grains	69.0%	40.1%
Yield of Food Grains (in kg. per hectare)	782	2202
Per Capita Food Production (in kgs.)		164.1

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Depalpur	211585	170635	40950	19.4%	55.5%	51.8%	70.8%	36.1%	960	949	33.30	47.63
Sawer	188028	168931	19097	10.2%	60.7%	59.1%	74.1%	41.6%	937	940	35.90	43.02
Indore	1883662	210664	1672998	88.8%	79.3%	61.5%	81.5%	70.6%	906	904	5.57	33.17
Mhow	302046	184780	117266	38.8%	68.0%	58.4%	82.2%	54.9%	895	916	30.26	41.56

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Indore	759.71	84.0%	148.1%	0.4	176	58.44	33.13	136.005	Over Exploited
Mhow	744.54	60.5%	90.5%	0.34	150	42.25	28.25	35.842	White
Sawer	744.21	86.9%	147.0%	0.48	169	56.72	33.53	130.404	Over Exploited
Depalpur	978.81	86.3%	134.5%	0.63	156	41.5	26.63	125.679	Over Exploited

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Indore	20.9	10.93	55.68	65.10	5722
Mhow	12.3	30.47	43.11	49.4	3973
Sawer	25.84	3.5	43.67	40.69	4843
Depalpur	19.71	3.87	30.45	40.23	3713

JABALPUR

Basic Details on the District

Area (in sq. km)	5211
Total Inhabited Villages	1449
Total Habitations	1736
Forest Villages	6
Towns (Class I to IV) and Major Towns	14
Jabalpur	
Crop Zone :	
Wheat Zone	
Soil type :	
Deep Black (Deep)	
Agri Climatic Zone :	
Central Narmada Valley	
Schedule V Areas :	
No Schedule V area	

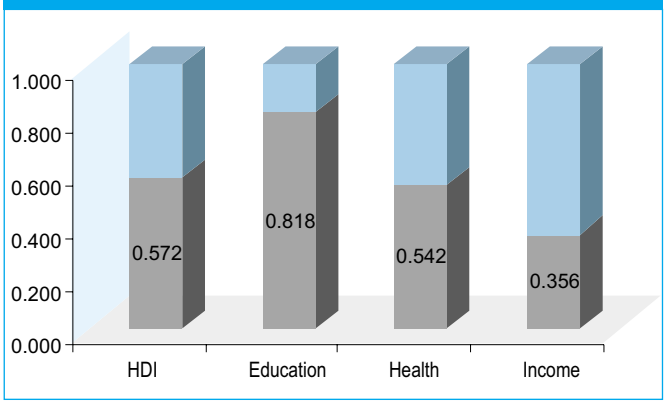
Demography

	1991	2001
Population	1768037	2167469
Share of Madhya Pradesh Population	3.64%	3.59%
Urban Population	57.1%	57.5%
Population of Scheduled Castes (SC)	13.3%	n.a.
Population of Scheduled Tribes (ST)	14.9%	n.a.
Density of Population (per sq. kms.)	339	416
Decadal Growth (%)	**1981-91**	**1991- 00**
All	19.12	22.59
Rural	n.a.	21.33
Urban	n.a.	23.54

Human Development Indices - 2002

Human Development Index (HDI)	0.572
Rank in Madhya Pradesh : HDI	17
Gender Related Development Index (GDI)	0.508
Rank in Madhya Pradesh : GDI	34

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	525
Tehsils	4
Tribal Blocks	0
Legislative Assembly Seats	9

Health

	1981	1991
Infant Mortality Rate	151	101
	1991	**2001**
Life Expectancy (years)	55.1	57.5
	1976-81	**1984-90**
Crude Birth Rate	32.3	34.1

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	152.27	129.41
	1996	**2000**
FPS per lakh population	47.26	46

Gender

	1991	2001
Life Expectancy of Females at Birth	56.5	57.3
Child Sex Ratio	951	924
Girl Child Mortality (birth to age 1 year)	117	n.a.
Girl Child Mortality (up to age 5 years)	145	n.a.
Total Fertility Rate	4.2	n.a.
Gender Ratio : All	903	910
Rural	929	924
Urban	884	900
General non SC/ ST Gender Ratio	891	n.a.
SC Gender Ratio	913	n.a.
ST Gender Ratio	955	n.a.
Workers Participation Rate - Female	19.1%	22.4%
	2000	
Female Enrolment Rate (Ages 6-14)	92.8%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1339
Percentage of villages not connected with pucca roads	68.2
	1991
Households without access to electricity, SDW and toilet facilities	19.74

Deprivation

Estimated Poverty Rate (1993-1994)	42.2%
Children as main workers (1991)	2.9%
Children as main and marginal workers (1991)	3.8%
Percentage of safe deliveries (1998-1999)	44.4
Percentage of children fully immunised (1998-1999)	50.9

Forests

	1999
Per Capita Forest Area (in hectares)	0.095
Annual Rate of Afforestation (%) (1993-1999)	-1.16
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra, Aonla	

Education

	1991	2001
Literacy (%) : All	64.6%	76.2%
Male	75.6%	91.4%
Female	52.3%	59.5%
Rural	46.5%	64.3%
Urban	77.7%	84.4%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	94.2%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

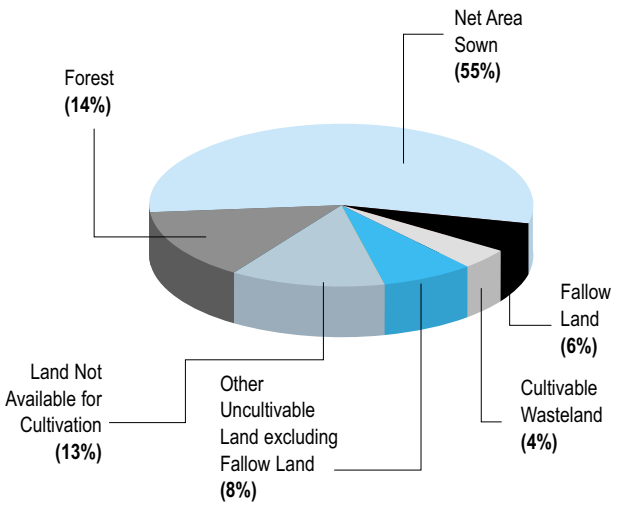
Employment

	1991	2001
Worker Participation Rate :		
All	34.6%	37.1%
Rural	43.0%	45.0%
Urban	28.2%	31.2%
Share of Primary Sector (%)	47.0%	n.a.
Share of Secondary Sector (%)	22.3%	n.a.
Share of Tertiary Sector (%)	30.66%	n.a.
Employment in Registered Industries (2000)		37940
Employment Rate of Growth (1991 to 2001)	n.a.	30.8%
Total Employment in Farm Sector (%)	46.8%	40.19
Rural Employment in Non Farm Sector (%)	17.4%	25.9%
Agriculture Labour (%)	23.2%	25.1%

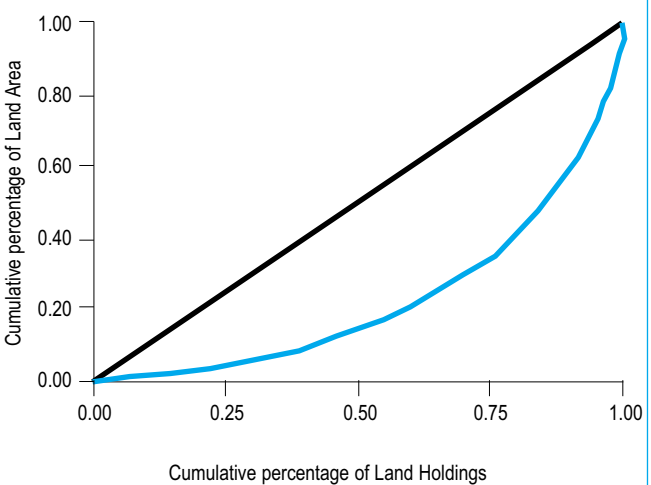
Infrastructure / Facilities

	2001
Middle Schools per lakh population	30.9
High Schools per lakh population	15.0
Rural Population per Primary Health Centre	57560
Population Serviced Sub Health Centre	4772
	2000
Road length per 100 sq. km. (1999)	31.0
Telephone per lakh population	2892
Population per Post Office (1994-95)	7290
Registered establishments under Factories Act (1997)	1121
Per capita consumption of electricity (non industrial) in kwh	432.8

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	468.4	278.6
Gross Cropped Area (in 000' ha.)	562.7	368.6
Double Cropped Area to Net Area Sown	20.1	32.3
Net Irrigated Area (in 000' ha.)	26.2	92.7
Gross Irrigated Area (in 000' ha.)	32.6	96.5
	1992-93	**1998-99**
Agriculture Intensity	122.4	132.3

Credit

	2000
Credit-Deposit Ratio	46.09
Commercial Banks (per 1000 population)	0.06
Crop lending per hectare of cultivated land	802.2
Crop lending per hectare of irrigated land	3950.4

Habitat

	2001	
Number of towns reporting slums	14	
Urban population residing in slums	22.63%	
Level of ground water development	30.59	
Average annual rainfall (in mm)	1161.90	
	1995	**2000**
Percentage area under wasteland	17.2%	17.43%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	116.5	92.6
Pulses Per Capita (Kg)	35.7	36.9
Oilseeds Per Capita (Kg)	6.9	13.6
Average Landholding (Ha)	1.9	1.66
Gross Irrigated Area ('000 Ha)		96.5
Fertiliser Consumption Per Hectare (Kg)	53.1	41.69
	1993	**1999**
Cropping Intensity	122	132.3

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	46.3%	53.6%
Gross Cropped Area to Total Area	55.6%	70.9%
Net Irrigated to Net Sown Area	5.6%	33.3%
Cropped Area under Food Grains	91.6%	83.1%
Yield of Food Grains (in kg. per hectare)	599	879
Per Capita Food Production (in kgs.)		129.4

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Sihora	302801	253606	49195	16.2%	68.5%	66.4%	78.7%	54.1%	938	972	34.04	45.93
Patan	308503	266251	42252	13.7%	64.0%	62.0%	76.4%	51.1%	906	941	54.04	42.85
Jabalpur	1449020	293963	1155057	79.7%	81.8%	69.0%	84.9%	74.1%	899	902	11.80	32.67
Kundam	107145	107145	-	-	51.9%	51.9%	0.0%	37.6%	995	986	44.38	54.07

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Panagar	421.43	72.8%	93.3%	0.3	128	26.52	20.68	26.801	White
Kundam	870.4	41.7%	46.8%	0.39	112	4.09	3.64	5.474	White
Bargi (Jabalpur)	751	45.5%	52.5%	0.27	115	18.43	15.97	24.581	White
Sihora	440.05	61.0%	77.3%	0.27	127	23.71	22.02	30.391	White
Majholi	596.94	61.2%	73.3%	0.31	120	18.04	15.07	30.904	White
Patan	568.49	87.9%	105.5%	0.52	120	12.21	10.18	38.663	White
Shahpura	810.31	68.2%	83.7%	0.43	123	13.82	5.37	56.720	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Panagar	12.92	22.75	26.8	55.8	3582
Kundam	8.12	70.98	23.7	44.0	7111
Bargi (Jabalpur)	11.69	29.2	39.0	36.2	3917
Sihora	13.41	19.12	26.4	69.1	4759
Majholi	13.45	20.36	16.4	36.5	10599
Patan	17.47	15.14	15.8	36.0	2822
Shahpura	14.44	23.74	14.3	38.0	7505

J H A B U A

Basic Details on the District

Area (in sq. km)	6782
Total Inhabited Villages	1313
Total Habitations	9927
Forest Villages	0
Towns (Class I to IV) and Major Towns	8
Jhabua	
Crop Zone :	
Cotton Jowar (Petlawad Tehsil)	
Soil type :	
Medium Black (Medium) (Petlawad Tehsil), Medium Black Skeletal (Light/ Medium) (except Petlawad Tehsil)	
Agri Climatic Zone :	
Malwa Plateau (Petlawad Tehsil), Jhabua Hills (except Petlawad Tehsil)	
Schedule V Areas :	
Entire Jhabua District	

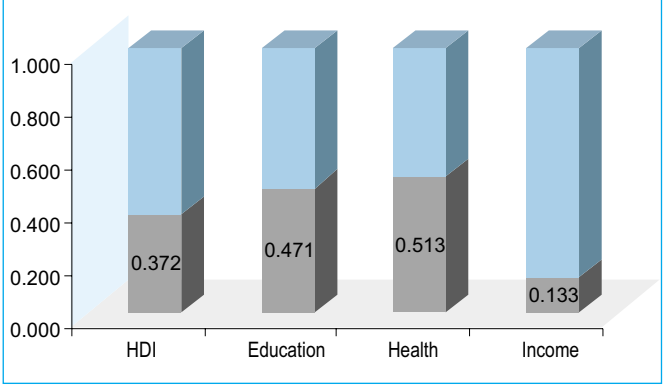
Demography

	1991	2001
Population	1130405	1396677
Share of Madhya Pradesh Population	2.33%	2.31%
Urban Population	8.7%	8.7%
Population of Scheduled Castes (SC)	3.1%	n.a.
Population of Scheduled Tribes (ST)	85.7%	n.a.
Density of Population (per sq. kms.)	167	206
Decadal Growth (%)	**1981-91**	**1991- 00**
All	42.16	23.56
Rural	n.a.	23.57
Urban	n.a.	23.4

Human Development Indices - 2002

Human Development Index (HDI)	0.372
Rank in Madhya Pradesh : HDI	45
Gender Related Development Index (GDI)	0.450
Rank in Madhya Pradesh : GDI	43

Graph on Human Development Index



Administrative Information

Janpad Panchayats	12
Gram Panchayats	612
Tehsils	8
Tribal Blocks	12
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	133	130
	1991	**2001**
Life Expectancy (years)	54.7	55.8
	1976-81	**1984-90**
Crude Birth Rate	42.2	45.4

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	251.33	268.22
	1996	**2000**
FPS per lakh population	19.66	21

Gender

	1991	2001
Life Expectancy of Females at Birth	51.4	51.3
Child Sex Ratio	991	970
Girl Child Mortality (birth to age 1 year)	96	n.a.
Girl Child Mortality (up to age 5 years)	179	n.a.
Total Fertility Rate	7.0	n.a.
Gender Ratio : All	977	990
Rural	983	996
Urban	920	929
General non SC/ ST Gender Ratio	918	n.a.
SC Gender Ratio	954	n.a.
ST Gender Ratio	986	n.a.
Workers Participation Rate - Female	51.8%	50.7%
	2000	
Female Enrolment Rate (Ages 6-14)	58.5%	

Basic Amenities

	2000
Habitations with SDW facility	98.5%
Habitations without 40 lpd water availability	1.7%
Number of villages electrified	1292
Percentage of villages not connected with pucca roads	55.8
	1991
Households without access to electricity, SDW and toilet facilities	28.20

Deprivation

Estimated Poverty Rate (1993-1994)	31.2%
Children as main workers (1991)	15.2%
Children as main and marginal workers (1991)	25.5%
Percentage of safe deliveries (1998-1999)	22.4
Percentage of children fully immunised (1998-1999)	17.4

Forests

	1999
Per Capita Forest Area (in hectares)	0.063
Annual Rate of Afforestation (%) (1993-1999)	-3.23
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	19.0%	37.1%
Male	26.3%	48.8%
Female	11.5%	25.5%
Rural	13.7%	32.3%
Urban	70.0%	82.6%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	69.7%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

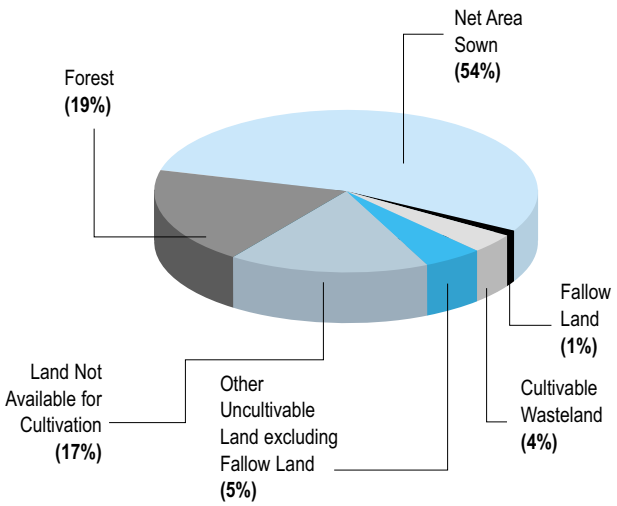
Employment

	1991	2001
Worker Participation Rate :		
All	54.0%	52.6%
Rural	56.1%	54.5%
Urban	32.5%	32.6%
Share of Primary Sector (%)	90.6%	n.a.
Share of Secondary Sector (%)	2.7%	n.a.
Share of Tertiary Sector (%)	6.69%	n.a.
Employment in Registered Industries (2000)		4000
Employment Rate of Growth (1991 to 2001)	n.a.	20.0%
Total Employment in Farm Sector (%)	90.4%	87.23
Rural Employment in Non Farm Sector (%)	5.1%	8.8%
Agriculture Labour (%)	5.9%	13.9%

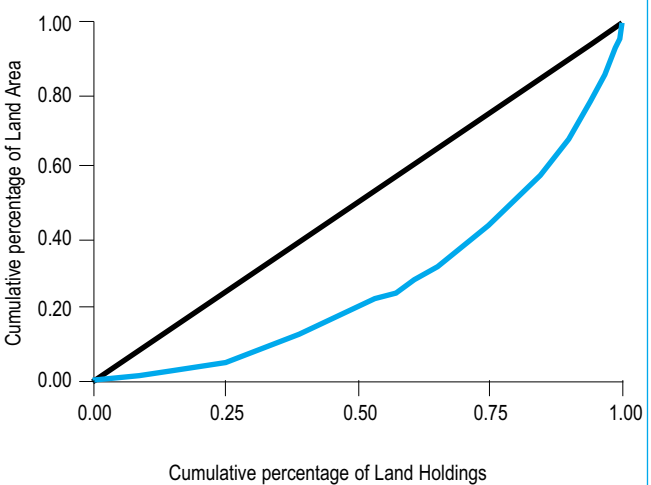
Infrastructure / Facilities

	2001
Middle Schools per lakh population	32.4
High Schools per lakh population	7.3
Rural Population per Primary Health Centre	39864
Population Serviced Sub Health Centre	3687
	2000
Road length per 100 sq. km. (1999)	35.1
Telephone per lakh population	671
Population per Post Office (1994-95)	7952
Registered establishments under Factories Act (1997)	82
Per capita consumption of electricity (non industrial) in kwh	48.8

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	340.4	361.9
Gross Cropped Area (in 000' ha.)	382.1	474.4
Double Cropped Area to Net Area Sown	12.3	31.1
Net Irrigated Area (in 000' ha.)	17.9	80.8
Gross Irrigated Area (in 000' ha.)	18.4	82.2
	1992-93	**1998-99**
Agriculture Intensity	140.2	131.1

Credit

	2000
Credit-Deposit Ratio	45.4
Commercial Banks (per 1000 population)	0.02
Crop lending per hectare of cultivated land	528.8
Crop lending per hectare of irrigated land	3226.4

Habitat

	2001	
Number of towns reporting slums	8	
Urban population residing in slums	0.00%	
Level of ground water development	13.70	
Average annual rainfall (in mm)	580.00	
	1995	**2000**
Percentage area under wasteland	17.7%	20.48%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	207.0	214.4
Pulses Per Capita (Kg)	44.3	53.8
Oilseeds Per Capita (Kg)	21.1	28.2
Average Landholding (Ha)	2.6	2.23
Gross Irrigated Area ('000 Ha)		82.2
Fertiliser Consumption Per Hectare (Kg)	19.5	26.26
	1993	**1999**
Cropping Intensity	140	131.1

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	50.4%	53.6%
Gross Cropped Area to Total Area	56.5%	70.2%
Net Irrigated to Net Sown Area	5.3%	22.3%
Cropped Area under Food Grains	80.5%	81.7%
Yield of Food Grains (in kg. per hectare)	395	927
Per Capita Food Production (in kgs.)		268.2

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Thandla	140447	127762	12685	9.0%	38.1%	32.8%	85.0%	25.8%	972	972	31.23	49.04
Petlawad	170466	158047	12419	7.3%	49.6%	46.7%	83.4%	33.9%	982	969	12.31	54.96
Jhabua	258121	227544	30577	11.8%	36.2%	28.5%	86.6%	25.0%	985	954	10.89	48.21
Jobat	157536	147545	9991	6.3%	31.9%	28.0%	84.8%	22.2%	1031	982	7.39	60.89
Alirajpur	367448	342287	25161	6.8%	28.5%	24.4%	78.1%	19.8%	997	982	12.30	52.79
Meghnagar	124210	113894	10316	8.3%	43.6%	40.5%	75.1%	30.2%	974	969	23.59	46.12
Bhabra	87333	78070	9263	10.6%	39.6%	36.3%	65.8%	28.6%	984	978	14.65	55.81
Ranapur	91116	80499	10617	11.7%	43.3%	38.8%	74.3%	30.1%	983	943	7.80	56.45

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Jhabua	439.42	59.4%	87.1%	0.25	147	13.68	9.46	6.265	White
Rama	597.84	50.8%	69.9%	0.36	138	25.11	18.76	13.822	White
Ranapur	387.81	73.5%	102.8%	0.36	140	13.69	9.84	8.083	White
Alirajpur	620.95	66.3%	82.7%	0.49	125	9.89	7.93	18.761	White
Sondhwa	900.32	37.7%	48.1%	0.22	128	7.41	5.8	3.703	White
Kattiwara	719.69	32.5%	40.0%	0.32	123	7.65	6.22	3.375	White
Jobat	393.35	67.1%	83.2%	0.44	124	12.02	9.72	12.984	White
Udaigarh	367.63	69.1%	90.1%	0.43	130	11.42	8.77	11.616	White
Bhabra	315.54	70.9%	98.4%	0.35	139	8.73	6.29	18.884	White
Petlawad	885.28	58.2%	77.8%	0.4	134	31.86	27.27	30.365	White
Thandla	447.54	66.2%	102.8%	0.3	155	35.58	24.02	21.824	White
Meghnagar	320.58	68.7%	98.5%	0.22	143	15.33	11.33	8.057	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Jhabua	0.99	94.81	33.2	68.5	5748
Rama	1.38	94.34	23.6	58.2	7610
Ranapur	1.15	97.14	24.5	60.2	8626
Alirajpur	4.25	91.71	29.5	66.3	5616
Sondhwa	4.34	92.73	15.8	78.2	10645
Kattiwara	12.06	82.02	14.2	45.8	6026
Jobat	2.84	95.58	14.2	41.3	6731
Udaigarh	2.13	94.46	21.8	18.8	7345
Bhabra	1.32	97.01	68.1	96.3	5778
Petlawad	1.9	80.24	28.9	34.6	3234
Thandla	1.07	93.75	39.6	63.4	4425
Meghnagar	1.62	87.2	27.1	44.1	7008

K A T N I

Basic Details on the District

Area (in sq. km)	4950
Total Inhabited Villages	882
Total Habitations	1161
Forest Villages	2
Towns (Class I to IV) and Major Towns	4
Mudwara (Katni)	
Crop Zone :	
Wheat Rice Zone (Katni Tehsil), Wheat Zone (except Katni Tehsil)	
Soil type :	
Mixed Red and Black Soils (Medium) (Katni Tehsil), Deep Black (Deep) (except Katni Tehsil)	
Agri Climatic Zone :	
Kymore Plateau and Satpura Hills (Katni Tehsil), Central Narmada Valley (Katni except Katni Tehsil)	
Schedule V Areas :	
No Schedule V area	

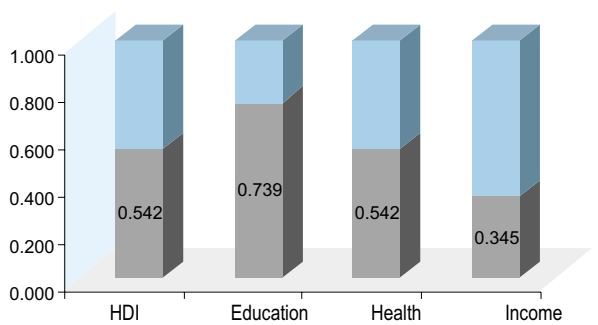
Demography

	1991	2001
Population	881925	1063689
Share of Madhya Pradesh Population	1.82%	1.76%
Urban Population	22.4%	21.1%
Population of Scheduled Castes (SC)	11.9%	n.a.
Population of Scheduled Tribes (ST)	23.9%	n.a.
Density of Population (per sq. kms.)	178	215
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.43	20.61
Rural	n.a.	22.55
Urban	n.a.	13.9

Human Development Indices - 2002

Human Development Index (HDI)	0.542
Rank in Madhya Pradesh : HDI	29
Gender Related Development Index (GDI)	0.558
Rank in Madhya Pradesh : GDI	21

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	409
Tehsils	5
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	n.a.	n.a.
	1991	**2001**
Life Expectancy (years)	55.1	57.5
	1976-81	**1984-90**
Crude Birth Rate	n.a.	n.a.

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	152.27	219.12
	1996	**2000**
FPS per lakh population	n.a.	40

Gender

	1991	2001
Life Expectancy of Females at Birth	56.5	58.5
Child Sex Ratio	959	951
Girl Child Mortality (birth to age 1 year)	n.a.	n.a.
Girl Child Mortality (up to age 5 years)	n.a.	n.a.
Total Fertility Rate	n.a.	n.a.
Gender Ratio : All	939	941
Rural	950	950
Urban	904	909
General non SC/ ST Gender Ratio	926	n.a.
SC Gender Ratio	946	n.a.
ST Gender Ratio	974	n.a.
Workers Participation Rate - Female	30.7%	31.2%
	2000	
Female Enrolment Rate (Ages 6-14)	90.5%	

Basic Amenities

	1991
Habitations with SDW facility	99.9%
Habitations without 40 lpd water availability	0.1%
Number of villages electrified	843
Percentage of villages not connected with pucca roads	68.2
	1991
Households without access to electricity, SDW and toilet facilities	n.a.

Deprivation

Estimated Poverty Rate (1993-1994)	n.a.
Children as main workers (1991)	n.a.
Children as main and marginal workers (1991)	n.a.
Percentage of safe deliveries (1998-1999)	n.a.
Percentage of children fully immunised (1998-1999)	n.a.

Forests

	1999
Per Capita Forest Area (in hectares)	n.a.
Annual Rate of Afforestation (%) (1993-1999)	n.a.
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	47.8%	64.7%
Male	64.0%	79.9%
Female	30.5%	48.5%
Rural	40.5%	59.8%
Urban	72.3%	81.8%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	91.1%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

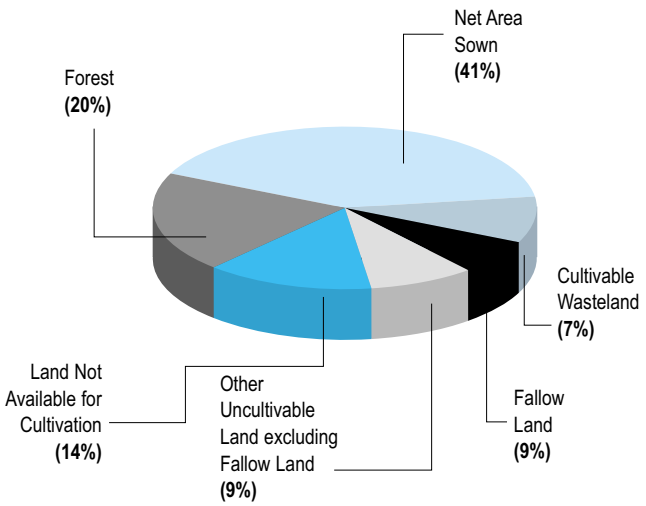
Employment

	1991	2001
Worker Participation Rate :		
All	41.9%	41.7%
Rural	45.6%	44.9%
Urban	29.0%	29.9%
Share of Primary Sector (%)	72.7%	n.a.
Share of Secondary Sector (%)	11.9%	n.a.
Share of Tertiary Sector (%)	15.37%	n.a.
Employment in Registered Industries (2000)		n.a.
Employment Rate of Growth (1991 to 2001)	n.a.	20.1%
Total Employment in Farm Sector (%)	70.9%	63.19
Rural Employment in Non Farm Sector (%)	16.9%	26.5%
Agriculture Labour (%)	27.6%	31.9%

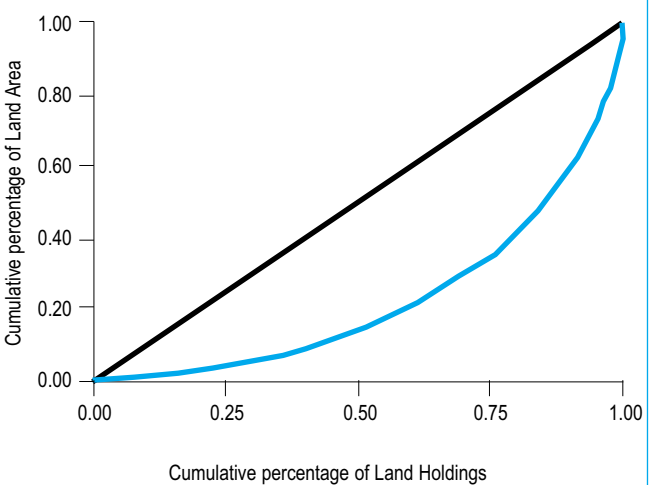
Infrastructure / Facilities

	2001
Middle Schools per lakh population	32.4
High Schools per lakh population	10.6
Rural Population per Primary Health Centre	44144
Population Serviced Sub Health Centre	5177
	2000
Road length per 100 sq. km. (1999)	23.9
Telephone per lakh population	955
Population per Post Office (1994-95)	n.a.
Registered establishments under Factories Act (1997)	n.a.
Per capita consumption of electricity (non industrial) in kwh	80.4

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	n.a.	201.2
Gross Cropped Area (in 000' ha.)	n.a.	265.8
Double Cropped Area to Net Area Sown	n.a.	32.1
Net Irrigated Area (in 000' ha.)	n.a.	45.7
Gross Irrigated Area (in 000' ha.)	n.a.	54.2
	1992-93	**1998-99**
Agriculture Intensity	n.a.	132.1

Credit

	2000
Credit-Deposit Ratio	29.33
Commercial Banks (per 1000 population)	0.05
Crop lending per hectare of cultivated land	n.a.
Crop lending per hectare of irrigated land	n.a.

Habitat

	2001	
Number of towns reporting slums	4	
Urban population residing in slums	16.29%	
Level of ground water development	15.76	
Average annual rainfall (in mm)	1027.00	
	1995	**2000**
Percentage area under wasteland	n.a.	n.a.

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	n.a.	195.1
Pulses Per Capita (Kg)	n.a.	24.0
Oilseeds Per Capita (Kg)	n.a.	6.0
Average Landholding (Ha)	n.a.	n.a.
Gross Irrigated Area ('000 Ha)		54.2
Fertiliser Consumption Per Hectare (Kg)	n.a.	36.3
	1993	**1999**
Cropping Intensity	n.a.	132.1

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	Included in Jabalpur	40.8%
Gross Cropped Area to Total Area	n.a.	53.9%
Net Irrigated to Net Sown Area	n.a.	22.7%
Cropped Area under Food Grains	n.a.	92.7%
Yield of Food Grains (in kg. per hectare)	n.a.	911
Per Capita Food Production (in kgs.)		219.1

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil*	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Bahoriband	163437	163437	-	-	61.5%	61.5%	0.0%	45.7%	954	970	39.55	43.53
Dhimarkhara	151991	151991	-	-	59.2%	59.2%	0.0%	42.4%	943	970	38.46	46.37
Murwara	569654	371993	197661	34.7%	66.7%	58.0%	81.9%	52.0%	935	938	27.32	39.60
Vijayraghavgrah	178607	151310	27297	15.3%	65.8%	63.0%	80.4%	44.7%	946	957	32.52	42.65

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Bahoriband	930.55	37.8%	48.9%	0.25	129	24.1	26	26.775	White
Dhimarkheda	855.25	35.9%	45.2%	0.24	126	17.15	13.62	6.169	White
Rithi	587.15	49.5%	61.4%	0.34	124	22.8	18.39	21.000	White
Katni	492.52	45.7%	59.9%	0.25	131	30.18	29.05	13.596	White
Badwara	838.5	44.3%	51.1%	0.3	115	22.08	19.15	25.634	White
Vijairaghavgarh	659.6	52.0%	61.5%	0.28	118	20.31	18.65	4.249	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Bahoriband	13.17	21.67	6.98	44.39	6188
Dhimarkheda	11.27	31.75	9.94	25.53	3819
Rithi	13.66	25.43	11.58	54.13	3570
Katni	12.21	28.22	24.77	89.43	2758
Badwara	10.23	33.5	14.55	63.12	5160
Vijairaghavgarh	11.09	26.62	21.53	62.07	5171

*Data for Tehsil Rithi not available separately as it was formed on 18.7.01

EAST-NIMAR

Basic Details on the District

Area (in sq. km)	10779
Total Inhabited Villages	1060
Total Habitations	2252
Forest Villages	118
Towns (Class I to IV) and Major Towns	7
Burhanpur, Khandwa	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Nimar Plain	
Schedule V Areas :	
Khalwa Block of Khaknar Tehsil and Khaknar Block of Nepanagar Tehsil	

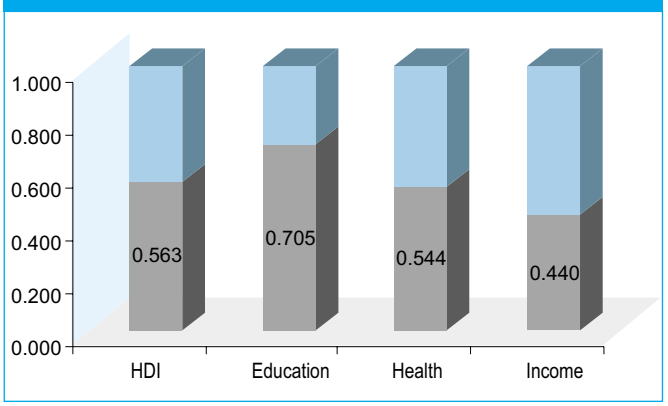
Demography

	1991	2001
Population	1431662	1708170
Share of Madhya Pradesh Population	2.95%	2.83%
Urban Population	27.5%	26.9%
Population of Scheduled Castes (SC)	11.4%	n.a.
Population of Scheduled Tribes (ST)	26.8%	n.a.
Density of Population (per sq. kms.)	133	159
Decadal Growth (%)	**1981-91**	**1991- 00**
All	24.11	19.31
Rural	n.a.	20.27
Urban	n.a.	16.78

Human Development Indices - 2002

Human Development Index (HDI)	0.563
Rank in Madhya Pradesh : HDI	21
Gender Related Development Index (GDI)	0.517
Rank in Madhya Pradesh : GDI	31

Graph on Human Development Index



Administrative Information

Janpad Panchayats	9
Gram Panchayats	591
Tehsils	6
Tribal Blocks	2
Legislative Assembly Seats	7

Health

	1981	1991
Infant Mortality Rate	154	100
	1991	**2001**
Life Expectancy (years)	55.4	57.7
	1976-81	**1984-90**
Crude Birth Rate	37.1	38.5

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	164.70	171.45
	1996	**2000**
FPS per lakh population	28.53	27

Gender

	1991	2001
Life Expectancy of Females at Birth	55.9	57.8
Child Sex Ratio	951	944
Girl Child Mortality (birth to age 1 year)	131	n.a.
Girl Child Mortality (up to age 5 years)	153	n.a.
Total Fertility Rate	5.2	n.a.
Gender Ratio : All	938	936
Rural	940	936
Urban	931	936
General non SC/ ST Gender Ratio	930	n.a.
SC Gender Ratio	919	n.a.
ST Gender Ratio	963	n.a.
Workers Participation Rate - Female	33.7%	34.3%
	2000	
Female Enrolment Rate (Ages 6-14)	85.2%	

Basic Amenities

	2000
Habitations with SDW facility	99.6%
Habitations without 40 lpd water availability	0.5%
Number of villages electrified	1055
Percentage of villages not connected with pucca roads	51.0
	1991
Households without access to electricity, SDW and toilet facilities	14.95

Deprivation

Estimated Poverty Rate (1993-1994)	50.0%
Children as main workers (1991)	8.5%
Children as main and marginal workers (1991)	10.6%
Percentage of safe deliveries (1998-1999)	42.8
Percentage of children fully immunised (1998-1999)	56.7

Forests

	1999
Per Capita Forest Area (in hectares)	0.211
Annual Rate of Afforestation (%) (1993-1999)	-2.59
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	45.5%	61.7%
Male	58.5%	74.1%
Female	31.5%	48.5%
Rural	36.4%	55.6%
Urban	68.4%	77.5%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	88.0%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

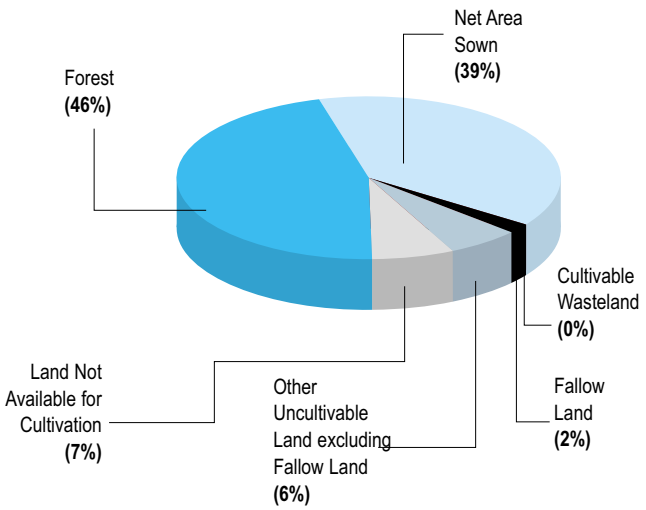
Employment

	1991	2001
Worker Participation Rate :		
All	43.7%	43.9%
Rural	49.3%	49.1%
Urban	28.9%	29.7%
Share of Primary Sector (%)	76.7%	n.a.
Share of Secondary Sector (%)	9.8%	n.a.
Share of Tertiary Sector (%)	13.54%	n.a.
Employment in Registered Industries (2000)		27453
Employment Rate of Growth (1991 to 2001)	n.a.	19.9%
Total Employment in Farm Sector (%)	76.6%	75.38
Rural Employment in Non Farm Sector (%)	8.8%	10.6%
Agriculture Labour (%)	33.3%	39.3%

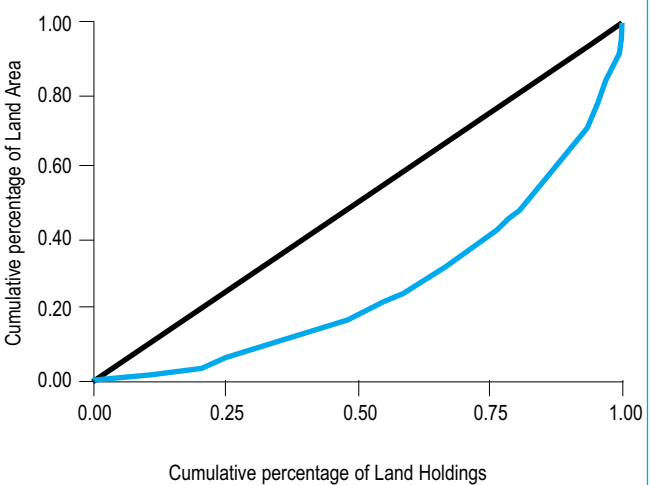
Infrastructure / Facilities

	2001
Middle Schools per lakh population	22.0
High Schools per lakh population	6.3
Rural Population per Primary Health Centre	27127
Population Serviced Sub Health Centre	4605
	2000
Road length per 100 sq. km. (1999)	17.7
Telephone per lakh population	1405
Population per Post Office (1994-95)	6969
Registered establishments under Factories Act (1997)	325
Per capita consumption of electricity (non industrial) in kwh	238.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	438.0	438.3
Gross Cropped Area (in 000' ha.)	465.4	543.6
Double Cropped Area to Net Area Sown	6.3	24.0
Net Irrigated Area (in 000' ha.)	42.5	151.4
Gross Irrigated Area (in 000' ha.)	42.5	160.2
	1992-93	**1998-99**
Agriculture Intensity	110.0	124.0

Credit

	2000
Credit-Deposit Ratio	70.2
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	1441.1
Crop lending per hectare of irrigated land	5338.6

Habitat

	2001	
Number of towns reporting slums	7	
Urban population residing in slums	66.41%	
Level of ground water development	39.87	
Average annual rainfall (in mm)	880.00	
	1995	**2000**
Percentage area under wasteland	10.8%	15.75%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	142.1	144.0
Pulses Per Capita (Kg)	22.6	27.5
Oilseeds Per Capita (Kg)	16.1	54.2
Average Landholding (Ha)	3.8	3.19
Gross Irrigated Area ('000 Ha)		160.2
Fertiliser Consumption Per Hectare (Kg)	56.1	65
	1993	**1999**
Cropping Intensity	110	124.0

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	39.2%	39.2%
Gross Cropped Area to Total Area	41.7%	48.6%
Net Irrigated to Net Sown Area	9.7%	34.5%
Cropped Area under Food Grains	56.0%	44.2%
Yield of Food Grains (in kg. per hectare)	829	1176
Per Capita Food Production (in kgs.)		171.4

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil*	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Khandwa	621120	431861	189259	30.5%	69.3%	63.9%	81.2%	56.3%	928	938	35.06	42.51
Harsud	321847	305978	15869	4.9%	51.9%	50.3%	81.0%	35.5%	931	961	40.61	48.80
Burhanpur	484554	272007	212547	43.9%	63.7%	55.6%	73.8%	52.2%	943	928	40.07	40.33
Pandhana	129542	118543	10999	8.5%	60.1%	58.6%	75.9%	44.2%	941	960	45.72	47.39
Nepanagar	151107	119449	31658	21.0%	44.5%	34.3%	78.2%	33.6%	951	961	44.17	47.66

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Khandwa	635.65	73.6%	78.9%	0.48	107	13.61	12.7	51.542	White
Punasa	761.06	67.9%	74.1%	0.46	109	20.33	18.63	53.643	White
Chhegaon Makhan	620.87	75.8%	79.5%	0.47	105	10.92	10.41	67.068	Grey
Pandhana	681.66	106.7%	116.2%	0.52	109	13.66	12.54	36.899	White
Burhanpur	640.64	75.3%	86.1%	0.31	114	29.73	39.07	32.046	White
Khaknar	742.03	74.5%	81.0%	0.41	109	16.18	18.21	43.026	White
Harsud	567.9	69.7%	78.8%	0.58	113	19.07	16.86	30.101	White
Baladi	532.72	53.4%	61.6%	0.51	115	20.09	17.42	15.243	White
Khalawa	751.81	72.6%	79.5%	0.54	110	13.84	18.31	40.693	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Khandwa	19.43	20.16	38.39	47.32	1445
Punasa	13.91	31.28	34.56	90.32	3974
Chhegaon Makhan	19.26	19.34	34.31	75.86	7708
Pandhana	10.8	42.58	34.13	45.45	8276
Burhanpur	14.22	18.09	44.49	39.06	5511
Khaknar	5.92	49.72	36.39	30.37	5205
Harsud	14.58	16.83	26.76	43	2946
Baladi	14.92	23.55	12.39	29.79	6143
Khalawa	6.92	60.47	42.7	16.22	4807

* Data for Tehsil Khaknar not available separately as it was formed on 18.7.01

WEST-NIMAR

Basic Details on the District

Area (in sq. km)	8030
Total Inhabited Villages	1170
Total Habitations	2716
Forest Villages	34
Towns (Class I to IV) and Major Towns	8
Khargone	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Nimar Plain	
Schedule V Areas :	
All Blocks of Khargone Bhagwanpura, Segaon, Jhiranya, Bhikangaown and Mahsehwar Tehsils	

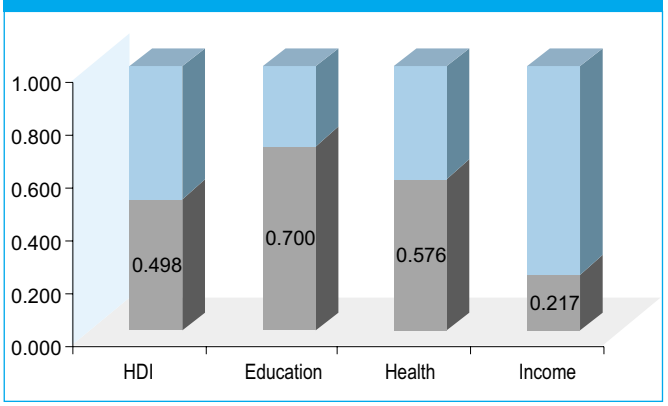
Demography

	1991	2001
Population	1195723	1529954
Share of Madhya Pradesh Population	2.46%	2.53%
Urban Population	15.0%	15.5%
Population of Scheduled Castes (SC)	11.7%	n.a.
Population of Scheduled Tribes (ST)	33.3%	n.a.
Density of Population (per sq. kms.)	149	191
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.04	27.95
Rural	n.a.	27.18
Urban	n.a.	32.34

Human Development Indices - 2002

Human Development Index (HDI)	0.498
Rank in Madhya Pradesh : HDI	35
Gender Related Development Index (GDI)	0.543
Rank in Madhya Pradesh : GDI	26

Graph on Human Development Index



Administrative Information

Janpad Panchayats	9
Gram Panchayats	560
Tehsils	8
Tribal Blocks	7
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	129	104
	1991	**2001**
Life Expectancy (years)	55.9	59.6
	1976-81	**1984-90**
Crude Birth Rate	41.7	38.4

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	207.58	197.41
	1996	**2000**
FPS per lakh population	23.92	26

Gender

	1991	2001
Life Expectancy of Females at Birth	55.1	59.5
Child Sex Ratio	954	968
Girl Child Mortality (birth to age 1 year)	124	n.a.
Girl Child Mortality (up to age 5 years)	156	n.a.
Total Fertility Rate	5.3	n.a.
Gender Ratio : All	941	948
Rural	946	953
Urban	909	924
General non SC/ ST Gender Ratio	925	n.a.
SC Gender Ratio	931	n.a.
ST Gender Ratio	970	n.a.
Workers Participation Rate - Female	37.1%	39.4%
	2000	
Female Enrolment Rate (Ages 6-14)	80.4%	

Basic Amenities

	2000
Habitations with SDW facility	99.6%
Habitations without 40 lpd water availability	1.8%
Number of villages electrified	1142
Percentage of villages not connected with pucca roads	58.3
	1991
Households without access to electricity, SDW and toilet facilities	20.51

Deprivation

Estimated Poverty Rate (1993-1994)	75.6%
Children as main workers (1991)	9.8%
Children as main and marginal workers (1991)	12.6%
Percentage of safe deliveries (1998-1999)	34.5
Percentage of children fully immunised (1998-1999)	31.8

Forests

	1999
Per Capita Forest Area (in hectares)	0.136
Annual Rate of Afforestation (%) (1993-1999)	-5.39
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	41.2%	63.4%
Male	55.4%	75.2%
Female	26.1%	50.9%
Rural	36.2%	60.4%
Urban	68.5%	78.9%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	83.2%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

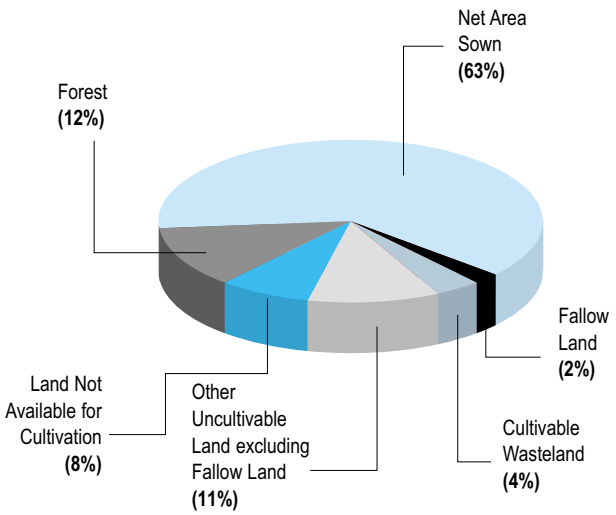
Employment

	1991	2001
Worker Participation Rate :		
All	44.8%	46.0%
Rural	47.4%	48.7%
Urban	30.1%	31.4%
Share of Primary Sector (%)	83.5%	n.a.
Share of Secondary Sector (%)	5.3%	n.a.
Share of Tertiary Sector (%)	11.18%	n.a.
Employment in Registered Industries (2000)		33150
Employment Rate of Growth (1991 to 2001)	n.a.	31.6%
Total Employment in Farm Sector (%)	83.4%	81.5
Rural Employment in Non Farm Sector (%)	9.2%	10.9%
Agriculture Labour (%)	32.4%	34.9%

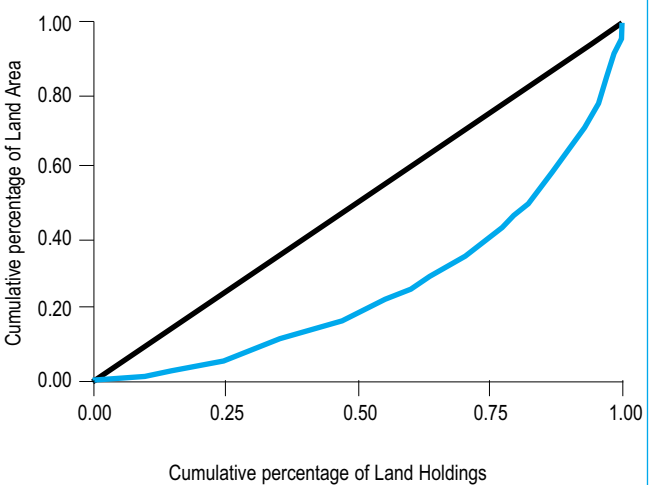
Infrastructure / Facilities

	2001
Middle Schools per lakh population	27.0
High Schools per lakh population	9.0
Rural Population per Primary Health Centre	24388
Population Serviced Sub Health Centre	4352
	2000
Road length per 100 sq. km. (1999)	25.8
Telephone per lakh population	1045
Population per Post Office (1994-95)	7364
Registered establishments under Factories Act (1997)	459
Per capita consumption of electricity (non industrial) in kwh	404.5

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	619.5	411.0
Gross Cropped Area (in 000' ha.)	681.9	484.0
Double Cropped Area to Net Area Sown	10.1	17.8
Net Irrigated Area (in 000' ha.)	77.3	175.7
Gross Irrigated Area (in 000' ha.)	77.3	175.9
	1992-93	**1998-99**
Agriculture Intensity	110.5	117.8

Credit

	2000
Credit-Deposit Ratio	68.23
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	1097.5
Crop lending per hectare of irrigated land	3515.4

Habitat

	2001	
Number of towns reporting slums	8	
Urban population residing in slums	16.92%	
Level of ground water development	44.10	
Average annual rainfall (in mm)	830.00	
	1995	**2000**
Percentage area under wasteland	9.5%	14.69%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	190.5	181.5
Pulses Per Capita (Kg)	17.1	171.5
Oilseeds Per Capita (Kg)	19.9	23.6
Average Landholding (Ha)	3.7	3.05
Gross Irrigated Area ('000 Ha)		175.9
Fertiliser Consumption Per Hectare (Kg)	54.3	95.59
	1993	**1999**
Cropping Intensity	110	117.8

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	45.9%	63.4%
Gross Cropped Area to Total Area	50.6%	74.7%
Net Irrigated to Net Sown Area	12.5%	42.8%
Cropped Area under Food Grains	61.7%	49.0%
Yield of Food Grains (in kg. per hectare)	846	1212
Per Capita Food Production (in kgs.)		197.4

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Barwaha	300276	231184	69092	23.0%	71.2%	68.0%	81.4%	57.8%	934	941	36.98	45.30
Maheshwar	198015	167024	30991	15.7%	73.1%	72.0%	78.9%	61.2%	954	964	45.22	46.86
Kasrawad	204728	185693	19035	9.3%	69.6%	69.7%	68.4%	56.3%	933	964	41.13	46.99
Khargone	304811	200831	103980	34.1%	70.9%	66.8%	78.7%	57.8%	931	950	32.14	41.93
Bhikangaon	152883	138586	14297	9.4%	64.5%	62.7%	80.8%	51.6%	953	964	35.45	48.19
Segaon	68952	68952	-	-	63.3%	63.3%	0.0%	51.6%	973	1000	24.25	50.25
Bhagwanpura	148625	148625	-	-	36.4%	36.4%	0.0%	26.8%	983	1003	26.48	46.59
Jhiranya	151664	151664	-	-	32.4%	32.4%	0.0%	21.4%	979	995	26.62	48.57

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Khargone	528.42	71.2%	0.0%	0.43	0	30.42	27.01	59.100	White
Gogawan	436.63	76.7%	87.2%	0.47	114	29.86	26.26	50.265	White
Bhagwanpura	489.18	72.3%	80.1%	0.37	111	18.65	16.83	40.137	White
Segaon	356.97	71.6%	80.5%	0.43	112	23.44	20.85	33.807	White
Bhikangaon	930.15	62.7%	68.2%	0.52	109	19.68	18.09	35.483	White
Jhiranya	653.14	70.2%	74.8%	0.41	107	40.23	9.6	38.498	White
Maheshwar	786.44	56.5%	64.1%	0.33	113	39.82	35.21	47.952	White
Barwaha	1164.14	61.6%	70.4%	0.38	114	44.33	38.78	67.128	Grey
Kasrawad	1010.3	59.1%	68.1%	0.43	115	36.58	31.74	27.370	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Khargone	14.64	13.56	45.8	81.72	2233
Gogawan	11.69	22.3	45.12	89.74	5468
Bhagwanpura	3.51	82.7	27.39	45	8035
Segaon	4.61	72.38	34.74	62.26	2758
Bhikangaon	7.97	42.22	28.6	32.03	4455
Jhiranya	4.44	77.55	17.76	32.81	11252
Maheshwar	20.01	25.26	38.48	49.12	5349
Barwaha	19.24	14.47	23.62	127.05	5837
Kasrawad	14.54	19.05	31.67	39.08	6994

MANDLA

Basic Details on the District

Area (in sq. km)	5800
Total Inhabited Villages	1214
Total Habitations	3258
Forest Villages	40
Towns (Class I to IV) and Major Towns	5
Mandla	
Crop Zone :	
Rice Zone (in some parts)	
Soil type :	
Red and Yellow, Medium Black and Skeletal Medium/ Light	
Agri Climatic Zone :	
Northern Hills	
Schedule V Areas :	
Entire Mandla District	

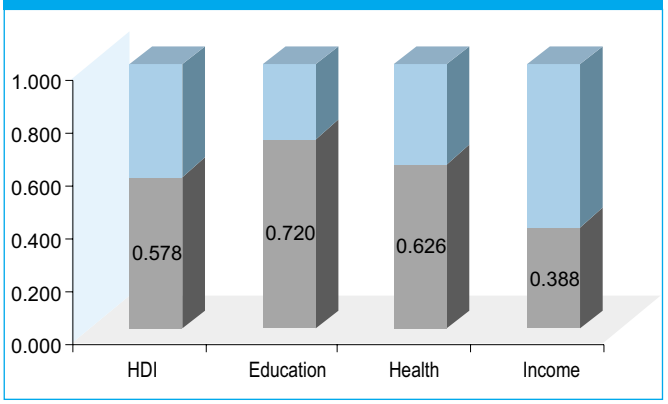
Demography

	1991	2001
Population	632781	893908
Share of Madhya Pradesh Population	1.30%	1.48%
Urban Population	12.0%	10.3%
Population of Scheduled Castes (SC)	5.4%	n.a.
Population of Scheduled Tribes (ST)	54.8%	n.a.
Density of Population (per sq. kms.)	134	154
Decadal Growth (%)	**1981-91**	**1991- 00**
All	24.17	14.66
Rural	n.a.	13.96
Urban	n.a.	21.15

Human Development Indices - 2002

Human Development Index (HDI)	0.578
Rank in Madhya Pradesh : HDI	16
Gender Related Development Index (GDI)	0.563
Rank in Madhya Pradesh : GDI	19

Graph on Human Development Index



Administrative Information

Janpad Panchayats	9
Gram Panchayats	423
Tehsils	4
Tribal Blocks	7
Legislative Assembly Seats	3

Health

	1981	1991
Infant Mortality Rate	131	88
	1991	**2001**
Life Expectancy (years)	58.1	62.6
	1976-81	**1984-90**
Crude Birth Rate	31.7	36.5

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	236.44	174.64
	1996	**2000**
FPS per lakh population	34.70	39

Gender

	1991	2001
Life Expectancy of Females at Birth	58.7	63.7
Child Sex Ratio	978	985
Girl Child Mortality (birth to age 1 year)	104	n.a.
Girl Child Mortality (up to age 5 years)	129	n.a.
Total Fertility Rate	5.0	n.a.
Gender Ratio : All	990	1002
Rural	990	1008
Urban	935	949
General non SC/ ST Gender Ratio	950	n.a.
SC Gender Ratio	946	n.a.
ST Gender Ratio	1012	n.a.
Workers Participation Rate - Female	45.5%	48.2%
	2000	
Female Enrolment Rate (Ages 6-14)	91.7%	

Basic Amenities

	2000
Habitations with SDW facility	98.7%
Habitations without 40 lpd water availability	5.4%
Number of villages electrified	1032
Percentage of villages not connected with pucca roads	71.9
	1991
Households without access to electricity, SDW and toilet facilities	47.28

Deprivation

Estimated Poverty Rate (1993-1994)	53.7%
Children as main workers (1991)	8.5%
Children as main and marginal workers (1991)	10.3%
Percentage of safe deliveries (1998-1999)	17.6
Percentage of children fully immunised (1998-1999)	77.1

Forests

	1999
Per Capita Forest Area (in hectares)	0.665
Annual Rate of Afforestation (%) (1993-1999)	1.31

Major Non-Timber Forest Produce :

Tendu Leaves, Baheda, Safed Musli, Achar Guthli, Nagarmotha, Harra, Bel, Aonla, Dhawai Flower, Imli, Mango Guthli, Charota Seeds, Vaividang, Kusum Seeds, Kosa Cotton, Bhilwa Seeds, Mahua Seeds, Karanj Seeds, Mahul Leaves

Education

	1991	2001
Literacy (%) : All	37.0%	59.8%
Male	50.5%	74.4%
Female	23.5%	45.4%
Rural	37.6%	56.7%
Urban	79.0%	85.8%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	94.3%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

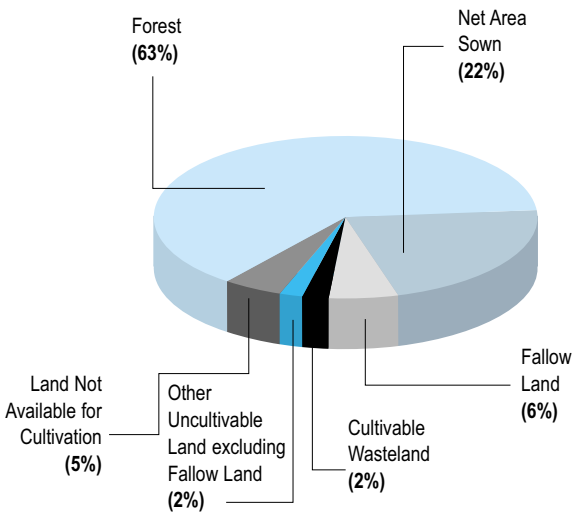
Employment

	1991	2001
Worker Participation Rate :		
All	49.9%	51.9%
Rural	52.7%	54.3%
Urban	29.5%	30.8%
Share of Primary Sector (%)	87.4%	n.a.
Share of Secondary Sector (%)	3.5%	n.a.
Share of Tertiary Sector (%)	9.12%	n.a.
Employment in Registered Industries (2000)		2774
Employment Rate of Growth (1991 to 2001)	n.a.	15.9%
Total Employment in Farm Sector (%)	87.4%	85.33
Rural Employment in Non Farm Sector (%)	7.6%	9.9%
Agriculture Labour (%)	27.1%	41.4%

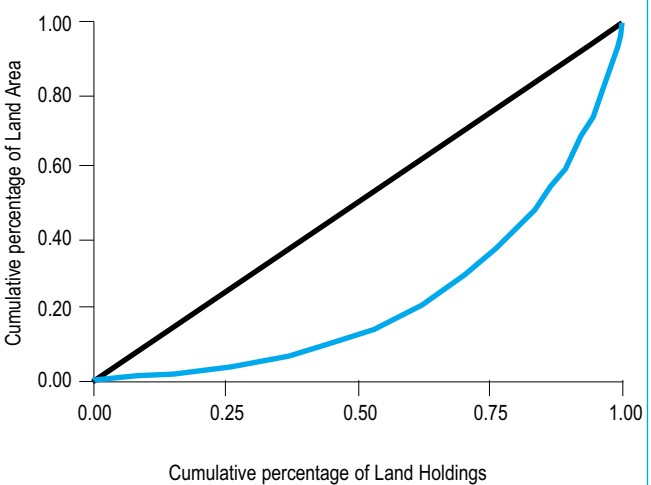
Infrastructure / Facilities

	2001
Middle Schools per lakh population	18.6
High Schools per lakh population	12.2
Rural Population per Primary Health Centre	28639
Population Serviced Sub Health Centre	3730
	2000
Road length per 100 sq. km. (1999)	30.2
Telephone per lakh population	458
Population per Post Office (1994-95)	6560
Registered establishments under Factories Act (1997)	78
Per capita consumption of electricity (non industrial) in kwh	15.5

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	420.3	198.0
Gross Cropped Area (in 000' ha.)	517.9	262.3
Double Cropped Area to Net Area Sown	23.2	32.5
Net Irrigated Area (in 000' ha.)	3.6	13.6
Gross Irrigated Area (in 000' ha.)	3.6	14.8
	1992-93	**1998-99**
Agriculture Intensity	119.7	132.5

Credit

	2000
Credit-Deposit Ratio	44.16
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	950.7
Crop lending per hectare of irrigated land	43048.8

Habitat

	2001	
Number of towns reporting slums	5	
Urban population residing in slums	0.00%	
Level of ground water development	2.31	
Average annual rainfall (in mm)	1370.00	
	1995	**2000**
Percentage area under wasteland	10.8%	17.00%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	208.5	156.7
Pulses Per Capita (Kg)	28.0	17.9
Oilseeds Per Capita (Kg)	37.6	16.6
Average Landholding (Ha)	2.7	2.35
Gross Irrigated Area ('000 Ha)		147.6
Fertiliser Consumption Per Hectare (Kg)	5.3	10.99
	1993	**1999**
Cropping Intensity	120	132.5

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	31.7%	21.7%
Gross Cropped Area to Total Area	39.1%	28.7%
Net Irrigated to Net Sown Area	0.9%	6.9%
Cropped Area under Food Grains	83.4%	87.0%
Yield of Food Grains (in kg. per hectare)	176	666
Per Capita Food Production (in kgs.)		174.6

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Niwas	195488	195488	-	-	56.7%	56.7%	0.0%	41.7%	1011	992	45.14	55.13
Mandla	344386	274150	70236	20.4%	61.9%	55.4%	86.1%	48.0%	998	981	37.67	49.76
Nainpur	136207	114438	21769	16.0%	65.9%	62.0%	85.0%	52.2%	1002	971	46.60	47.61
Bichhiya	217827	217827	-	-	55.7%	55.7%	0.0%	40.3%	1001	997	40.57	54.93

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Mandla	515.19	55.8%	58.2%	0.26	104	8.39	13.95	7.401	White
Mohgaon	327.91	54.7%	74.5%	0.32	136	0.12	0.25	9.722	White
Ghughri	654.77	42.5%	53.6%	0.41	126	0.32	0.46	0.157	White
Nainpur	671.39	55.2%	68.9%	0.37	125	13.85	12.81	3.587	White
Bichhiya	677.51	48.2%	63.6%	0.29	132	9.59	10.44	3.784	White
Mawai	534.21	53.0%	62.0%	0.46	117	0.07	0.06	0.321	White
Niwas	399.44	52.2%	63.9%	0.39	122	6.24	5.1	0.561	White
Narayanganj	395.38	45.5%	56.9%	0.3	125	2.89	2.31	0.586	White
Bijadandi	449.74	43.5%	59.8%	0.38	137	0.88	0.64	0.285	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Mandla	4.47	48.36	47.75	57.31	4067
Mohgaon	3.76	64.1	20.01	24.14	9375
Ghughri	2.13	76.9	11.15	22.92	5603
Nainpur	6.23	54.44	26.96	22.36	7197
Bichhiya	7.51	52.81	23.32	20.83	6634
Mawai	1.52	74.24	22.09	17.48	4746
Niwas	7.82	62.39	29.29	23	6735
Narayanganj	2.73	70.67	27.82	15.5	6649
Bijadandi	1.63	82.8	13.56	19.57	6493

MANDSAUR

Basic Details on the District

Area (in sq. km)	5535
Total Inhabited Villages	899
Total Habitations	1187
Forest Villages	0
Towns (Class I to IV) and Major Towns	9
Mandsaur	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
No Schedule V area	

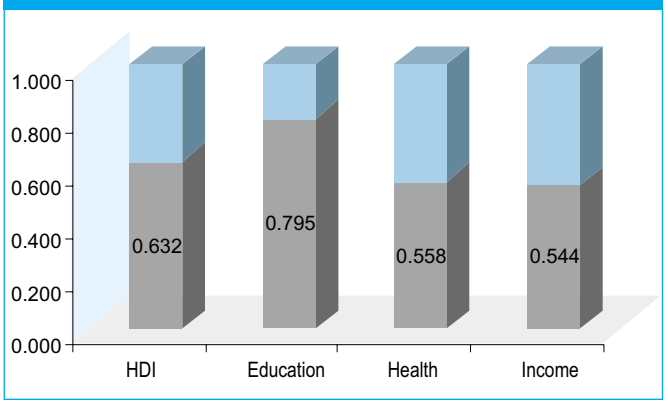
Demography

	1991	2001
Population	956869	1183369
Share of Madhya Pradesh Population	1.97%	1.96%
Urban Population	20.1%	18.6%
Population of Scheduled Castes (SC)	17.8%	n.a.
Population of Scheduled Tribes (ST)	2.8%	n.a.
Density of Population (per sq. kms.)	173	214
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.42	23.67
Rural	n.a.	25.85
Urban	n.a.	14.97

Human Development Indices - 2002

Human Development Index (HDI)	0.632
Rank in Madhya Pradesh : HDI	5
Gender Related Development Index (GDI)	0.622
Rank in Madhya Pradesh : GDI	4

Graph on Human Development Index



Administrative Information

Janpad Panchayats	5
Gram Panchayats	423
Tehsils	5
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	140	104
	1991	**2001**
Life Expectancy (years)	54.5	58.5
	1976-81	**1984-90**
Crude Birth Rate	36.2	33.5

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	397.76	321.65
	1996	**2000**
FPS per lakh population	29.79	30

Gender

	1991	2001
Life Expectancy of Females at Birth	54.2	57.9
Child Sex Ratio	949	946
Girl Child Mortality (birth to age 1 year)	112	n.a.
Girl Child Mortality (up to age 5 years)	153	n.a.
Total Fertility Rate	4.1	n.a.
Gender Ratio : All	947	956
Rural	950	960
Urban	933	942
General non SC/ ST Gender Ratio	949	n.a.
SC Gender Ratio	941	n.a.
ST Gender Ratio	921	n.a.
Workers Participation Rate - Female	37.6%	40.4%
	2000	
Female Enrolment Rate (Ages 6-14)	89.7%	

Basic Amenities

	2000
Habitations with SDW facility	99.8%
Habitations without 40 lpd water availability	0.7%
Number of villages electrified	899
Percentage of villages not connected with pucca roads	63.7
	1991
Households without access to electricity, SDW and toilet facilities	25.17

Deprivation

Estimated Poverty Rate (1993-1994)	23.9%
Children as main workers (1991)	7.4%
Children as main and marginal workers (1991)	9.3%
Percentage of safe deliveries (1998-1999)	46.4
Percentage of children fully immunised (1998-1999)	40.4

Forests

	1999
Per Capita Forest Area (in hectares)	0.101
Annual Rate of Afforestation (%) (1993-1999)	-1.24
Major Non-Timber Forest Produce :	
—	

Education

	1991	2001
Literacy (%) : All	47.7%	70.7%
Male	67.0%	85.8%
Female	27.2%	54.9%
Rural	41.7%	68.1%
Urban	71.0%	81.4%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	92.3%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

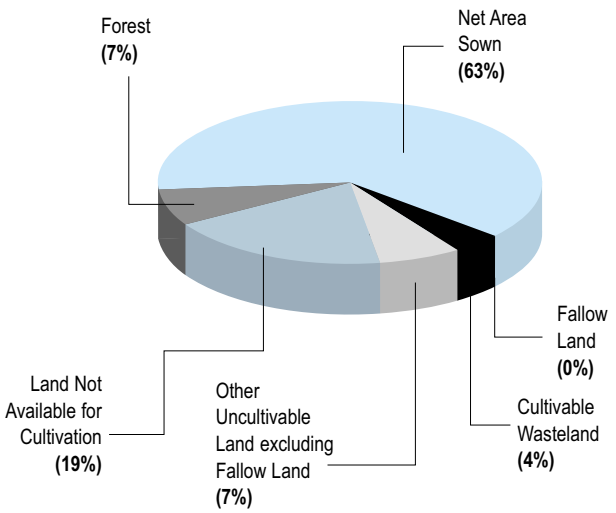
Employment

	1991	2001
Worker Participation Rate :		
All	46.2%	48.2%
Rural	49.7%	51.4%
Urban	32.3%	34.6%
Share of Primary Sector (%)	81.5%	n.a.
Share of Secondary Sector (%)	6.1%	n.a.
Share of Tertiary Sector (%)	12.43%	n.a.
Employment in Registered Industries (2000)		17655
Employment Rate of Growth (1991 to 2001)	n.a.	29.1%
Total Employment in Farm Sector (%)	81.3%	80.1
Rural Employment in Non Farm Sector (%)	9.3%	11.4%
Agriculture Labour (%)	21.0%	28.7%

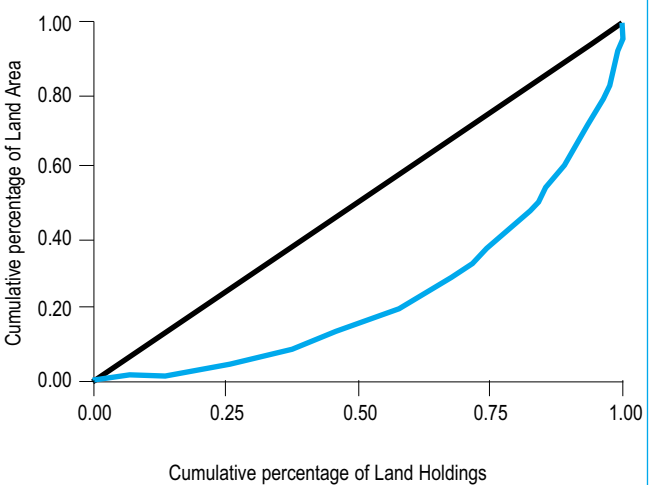
Infrastructure / Facilities

	2001
Middle Schools per lakh population	39.0
High Schools per lakh population	9.7
Rural Population per Primary Health Centre	20929
Population Serviced Sub Health Centre	6292
	2000
Road length per 100 sq. km. (1999)	19.5
Telephone per lakh population	1482
Population per Post Office (1994-95)	5290
Registered establishments under Factories Act (1997)	466
Per capita consumption of electricity (non industrial) in kwh	298.9

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	512.6	350.9
Gross Cropped Area (in 000' ha.)	684.8	570.1
Double Cropped Area to Net Area Sown	33.6	62.5
Net Irrigated Area (in 000' ha.)	101.3	155.8
Gross Irrigated Area (in 000' ha.)	103.6	157.5
	1992-93	**1998-99**
Agriculture Intensity	150.3	162.5

Credit

	2000
Credit-Deposit Ratio	55.41
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	1009.9
Crop lending per hectare of irrigated land	3239.1

Habitat

	2001	
Number of towns reporting slums	9	
Urban population residing in slums	9.53%	
Level of ground water development	97.42	
Average annual rainfall (in mm)	1012.00	
	1995	**2000**
Percentage area under wasteland	26.7%	28.79%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	322.7	245.7
Pulses Per Capita (Kg)	75.0	75.9
Oilseeds Per Capita (Kg)	64.6	257.7
Average Landholding (Ha)	2.8	2.43
Gross Irrigated Area ('000 Ha)		157.3
Fertiliser Consumption Per Hectare (Kg)	65.9	56.47
	1993	**1999**
Cropping Intensity	150	162.5

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	54.2%	63.6%
Gross Cropped Area to Total Area	72.4%	103.3%
Net Irrigated to Net Sown Area	19.8%	44.4%
Cropped Area under Food Grains	65.6%	41.5%
Yield of Food Grains (in kg. per hectare)	614	1543
Per Capita Food Production (in kgs.)		321.7

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Bhanpura	132731	116238	16493	12.4%	65.3%	63.0%	81.1%	48.2%	939	924	31.43	46.78
Malhargarh	185085	153954	31131	16.8%	75.2%	73.9%	81.8%	60.6%	970	952	29.09	50.52
Garoth	224005	187982	36023	16.1%	62.4%	59.3%	78.5%	43.0%	953	961	30.82	46.80
Mandsaur	396868	272771	124097	31.3%	73.7%	69.7%	82.1%	58.9%	954	941	24.09	44.74
Sitamau	244680	231791	12889	5.3%	72.5%	71.9%	82.6%	58.1%	961	946	31.58	54.27

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Mandsaur	1239.87	74.9%	119.6%	0.43	160	37.95	23.92	142.105	Over Exploited
Sitamau	1258.34	68.6%	96.5%	0.46	141	26.2	18.71	113.669	Over Exploited
Malhargarh	761.95	78.7%	113.0%	0.47	144	36.64	25.57	111.458	Over Exploited
Garoth	1100.8	71.9%	98.0%	0.53	136	28.97	21.74	62.147	White
Bhanpura	678.13	58.9%	79.6%	0.47	135	28.91	21.98	67.306	Grey

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Mandsaur	18.4	5.17	20.57	43.18	3359
Sitamau	21.51	1.17	14.7	19.4	3563
Malhargarh	20.11	4.78	21.92	30.59	3190
Garoth	21.43	0.63	14.9	14.51	4137
Bhanpura	16.41	5.46	17.84	26.83	3384

MORENA

Basic Details on the District

Area (in sq. km)	4989
Total Inhabited Villages	760
Total Habitations	4034
Forest Villages	0
Towns (Class I to IV) and Major Towns	6
Morena	
Crop Zone :	
Wheat Jowar	
Soil type :	
Alluvial (Light)	
Agri Climatic Zone :	
Gird Region	
Schedule V Areas :	
No Schedule V area	

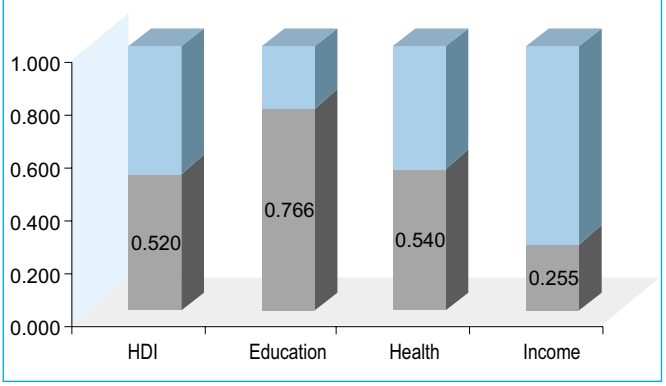
Demography

	1991	2001
Population	1279094	1587264
Share of Madhya Pradesh Population	2.63%	2.63%
Urban Population	22.6%	21.6%
Population of Scheduled Castes (SC)	21.0%	n.a.
Population of Scheduled Tribes (ST)	0.7%	n.a.
Density of Population (per sq. kms.)	256	318
Decadal Growth (%)	**1981-91**	**1991- 00**
All	30.58	24.09
Rural	n.a.	25.6
Urban	n.a.	18.92

Human Development Indices - 2002

Human Development Index (HDI)	0.520
Rank in Madhya Pradesh : HDI	32
Gender Related Development Index (GDI)	0.436
Rank in Madhya Pradesh : GDI	45

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	475
Tehsils	6
Tribal Blocks	0
Legislative Assembly Seats	12

Health

	1981	1991
Infant Mortality Rate	143	100
	1991	**2001**
Life Expectancy (years)	55.3	57.4
	1976-81	**1984-90**
Crude Birth Rate	40.6	41.2

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	229.75	252.86
	1996	**2000**
FPS per lakh population	14.59	14

Gender

	1991	2001
Life Expectancy of Females at Birth	53.0	53.2
Child Sex Ratio	857	829
Girl Child Mortality (birth to age 1 year)	116	n.a.
Girl Child Mortality (up to age 5 years)	163	n.a.
Total Fertility Rate	6.0	n.a.
Gender Ratio : All	808	822
Rural	806	816
Urban	814	842
General non SC/ ST Gender Ratio	809	n.a.
SC Gender Ratio	801	n.a.
ST Gender Ratio	898	n.a.
Workers Participation Rate - Female	7.4%	23.6%
	2000	
Female Enrolment Rate (Ages 6-14)	98.4%	

Basic Amenities

	2000
Habitations with SDW facility	99.4%
Habitations without 40 lpd water availability	0.6%
Number of villages electrified	753
Percentage of villages not connected with pucca roads	43.9
	1991
Households without access to electricity, SDW and toilet facilities	32.32

Deprivation

Estimated Poverty Rate (1993-1994)	20.5%
Children as main workers (1991)	3.1%
Children as main and marginal workers (1991)	3.8%
Percentage of safe deliveries (1998-1999)	33
Percentage of children fully immunised (1998-1999)	18.6

Forests

	1999
Per Capita Forest Area (in hectares)	0.299
Annual Rate of Afforestation (%) (1993-1999)	-0.19
Major Non-Timber Forest Produce :	
Tendu Leaves, Khair	

Education

	1991	2001
Literacy (%) : All	45.9%	65.6%
Male	63.5%	81.0%
Female	23.8%	46.8%
Rural	41.1%	62.5%
Urban	62.1%	76.3%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	98.7%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

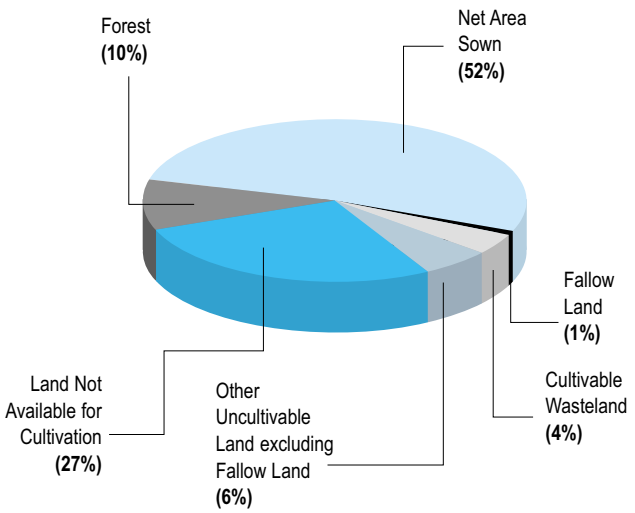
Employment

	1991	2001
Worker Participation Rate :		
All	28.7%	37.1%
Rural	29.9%	40.0%
Urban	24.8%	26.6%
Share of Primary Sector (%)	79.6%	n.a.
Share of Secondary Sector (%)	5.5%	n.a.
Share of Tertiary Sector (%)	14.93%	n.a.
Employment in Registered Industries (2000)		12718
Employment Rate of Growth (1991 to 2001)	n.a.	60.3%
Total Employment in Farm Sector (%)	79.2%	68.45
Rural Employment in Non Farm Sector (%)	8.9%	22.0%
Agriculture Labour (%)	6.4%	11.5%

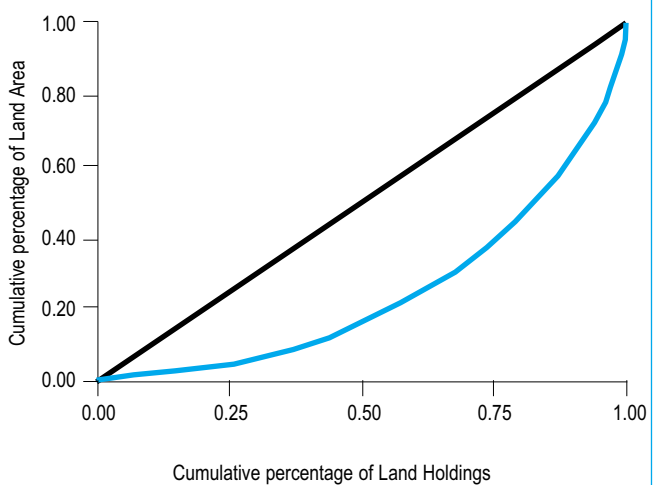
Infrastructure / Facilities

	2001
Middle Schools per lakh population	39.5
High Schools per lakh population	13.8
Rural Population per Primary Health Centre	65477
Population Serviced Sub Health Centre	6347
	2000
Road length per 100 sq. km. (1999)	20.6
Telephone per lakh population	851
Population per Post Office (1994-95)	7453
Registered establishments under Factories Act (1997)	182
Per capita consumption of electricity (non industrial) in kwh	188.5

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	373.8	265.8
Gross Cropped Area (in 000' ha.)	419.0	320.3
Double Cropped Area to Net Area Sown	12.1	20.5
Net Irrigated Area (in 000' ha.)	162.8	156.2
Gross Irrigated Area (in 000' ha.)	166.2	158.4
	1992-93	**1998-99**
Agriculture Intensity	111.0	120.5

Credit

	2000
Credit-Deposit Ratio	63.6
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	1109.2
Crop lending per hectare of irrigated land	2458.3

Habitat

	2001	
Number of towns reporting slums	6	
Urban population residing in slums	35.14%	
Level of ground water development	22.02	
Average annual rainfall (in mm)	709.20	
	1995	**2000**
Percentage area under wasteland	23.3%	22.72%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	205.7	239.0
Pulses Per Capita (Kg)	24.1	13.9
Oilseeds Per Capita (Kg)	162.1	114.5
Average Landholding (Ha)	1.9	1.77
Gross Irrigated Area ('000 Ha)		158.4
Fertiliser Consumption Per Hectare (Kg)	87.7	78.22
	1993	**1999**
Cropping Intensity	111	120.5

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	32.0%	53.0%
Gross Cropped Area to Total Area	35.9%	63.8%
Net Irrigated to Net Sown Area	43.6%	58.7%
Cropped Area under Food Grains	75.1%	50.5%
Yield of Food Grains (in kg. per hectare)	1638	2376
Per Capita Food Production (in kgs.)		252.9

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Ambah	220815	184372	36443	16.5%	71.9%	70.7%	78.2%	55.5%	828	788	10.95	36.33
Morena	474181	298069	176112	37.1%	67.6%	61.6%	77.3%	49.8%	805	808	10.99	33.53
Joura	356110	322631	33479	9.4%	59.7%	58.4%	71.8%	38.6%	807	846	14.65	38.50
Sabalgarh	181892	139754	42138	23.2%	63.6%	60.7%	73.2%	44.0%	846	857	10.27	37.70
Kailaras	154550	132620	21930	14.2%	58.8%	56.2%	73.9%	35.9%	834	855	10.24	43.70
Porsa	199716	166619	33097	16.6%	71.4%	69.8%	79.5%	55.4%	850	851	10.04	38.47

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Morena	958.44	71.7%	79.9%	0.34	111	51.95	47.73	21.469	White
Ambah	511.28	70.7%	85.2%	0.23	121	57.91	48.53	27.240	White
Porsa	536.69	65.3%	76.7%	0.24	117	60.3	51.56	20.130	White
Joura	665.86	57.2%	67.0%	0.24	117	59.32	52.05	29.613	White
Pahadgarh	917.34	32.9%	36.9%	0.27	112	63.3	56.52	13.773	White
Sabalgarh	753.76	39.5%	46.8%	0.26	118	65.75	56.39	14.848	White
Kailaras	251.22	106.6%	122.6%	0.25	115	78.21	68.95	28.312	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Morena	20.11	0.29	24.62	25.14	3654
Ambah	23.97	0.02	25.62	52.05	3180
Porsa	21.81	0.01	20.7	43.06	3433
Joura	18.62	0.43	17.87	37.14	4587
Pahadgarh	19	2.7	11.45	24.39	5027
Sabalgarh	23.81	1.51	21.23	61.67	4904
Kailaras	19.09	1.71	14.77	26.67	5075

NARSIMHAPUR

Basic Details on the District

Area (in sq. km)	5133
Total Inhabited Villages	1040
Total Habitations	1550
Forest Villages	12
Towns (Class I to IV) and Major Towns	5
Narsinghpur, Gaderwara	
Crop Zone :	
Wheat Zone	
Soil type :	
Deep Black (Deep)	
Agri Climatic Zone :	
Central Narmada Valley	
Schedule V Areas :	
No Schedule V area	

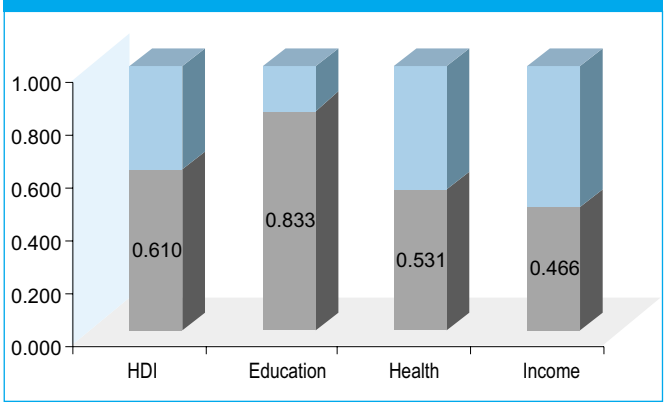
Demography

	1991	2001
Population	785496	957399
Share of Madhya Pradesh Population	1.62%	1.59%
Urban Population	14.9%	16.0%
Population of Scheduled Castes (SC)	16.6%	n.a.
Population of Scheduled Tribes (ST)	12.9%	n.a.
Density of Population (per sq. kms.)	153	187
Decadal Growth (%)	**1981-91**	**1991- 00**
All	20.76	21.88
Rural	n.a.	20.28
Urban	n.a.	31.09

Human Development Indices - 2002

Human Development Index (HDI)	0.610
Rank in Madhya Pradesh : HDI	11
Gender Related Development Index (GDI)	0.588
Rank in Madhya Pradesh : GDI	10

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	422
Tehsils	5
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	151	110
	1991	**2001**
Life Expectancy (years)	53.3	56.9
	1976-81	**1984-90**
Crude Birth Rate	33.9	34.6

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	399.87	380.55
	1996	**2000**
FPS per lakh population	31.61	30

Gender

	1991	2001
Life Expectancy of Females at Birth	51.4	54.4
Child Sex Ratio	924	917
Girl Child Mortality (birth to age 1 year)	121	n.a.
Girl Child Mortality (up to age 5 years)	159	n.a.
Total Fertility Rate	4.6	n.a.
Gender Ratio : All	913	909
Rural	915	910
Urban	897	906
General non SC/ ST Gender Ratio	905	n.a.
SC Gender Ratio	909	n.a.
ST Gender Ratio	959	n.a.
Workers Participation Rate - Female	25.4%	29.0%
	2000	
Female Enrolment Rate (Ages 6-14)	91.9%	

Basic Amenities

	2000
Habitations with SDW facility	99.7%
Habitations without 40 lpd water availability	0.3%
Number of villages electrified	1038
Percentage of villages not connected with pucca roads	67.1
	1991
Households without access to electricity, SDW and toilet facilities	9.58

Deprivation

Estimated Poverty Rate (1993-1994)	22.8%
Children as main workers (1991)	4.1%
Children as main and marginal workers (1991)	5.4%
Percentage of safe deliveries (1998-1999)	27.8
Percentage of children fully immunised (1998-1999)	68.7

Forests

	1999
Per Capita Forest Area (in hectares)	0.144
Annual Rate of Afforestation (%) (1993-1999)	1.21
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	55.7%	78.3%
Male	68.4%	86.8%
Female	41.6%	69.0%
Rural	51.4%	77.1%
Urban	79.3%	84.9%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	93.0%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

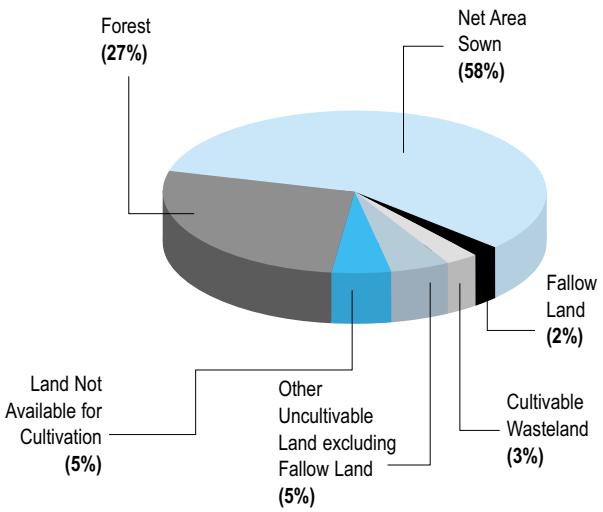
Employment

	1991	2001
Worker Participation Rate :		
All	39.6%	42.1%
Rural	41.4%	44.3%
Urban	29.2%	30.8%
Share of Primary Sector (%)	79.8%	n.a.
Share of Secondary Sector (%)	6.7%	n.a.
Share of Tertiary Sector (%)	13.49%	n.a.
Employment in Registered Industries (2000)		2549
Employment Rate of Growth (1991 to 2001)	n.a.	29.7%
Total Employment in Farm Sector (%)	79.7%	76.84
Rural Employment in Non Farm Sector (%)	12.0%	14.4%
Agriculture Labour (%)	38.9%	42.9%

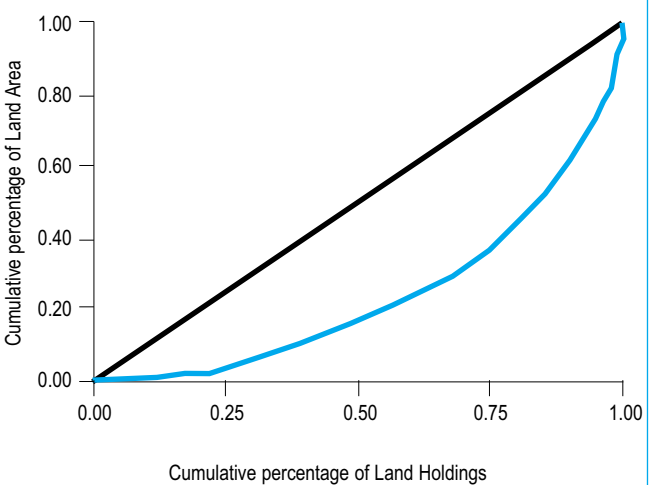
Infrastructure / Facilities

	2001
Middle Schools per lakh population	33.0
High Schools per lakh population	12.8
Rural Population per Primary Health Centre	42331
Population Serviced Sub Health Centre	5585
	2000
Road length per 100 sq. km. (1999)	22.3
Telephone per lakh population	1207
Population per Post Office (1994-95)	4670
Registered establishments under Factories Act (1997)	134
Per capita consumption of electricity (non industrial) in kwh	365.3

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	273.0	297.7
Gross Cropped Area (in 000' ha.)	286.2	413.0
Double Cropped Area to Net Area Sown	4.8	38.7
Net Irrigated Area (in 000' ha.)	21.5	157.9
Gross Irrigated Area (in 000' ha.)	21.5	157.9
	1992-93	**1998-99**
Agriculture Intensity	126.5	138.7

Credit

	2000
Credit-Deposit Ratio	74.51
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	410.0
Crop lending per hectare of irrigated land	1113.7

Habitat

	2001	
Number of towns reporting slums	5	
Urban population residing in slums	0.00%	
Level of ground water development	45.27	
Average annual rainfall (in mm)	1105.20	
	1995	**2000**
Percentage area under wasteland	12.3%	19.08%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	181.8	178.6
Pulses Per Capita (Kg)	218.1	201.9
Oilseeds Per Capita (Kg)	72.2	172.1
Average Landholding (Ha)	2.7	2.51
Gross Irrigated Area ('000 Ha)		157.9
Fertiliser Consumption Per Hectare (Kg)	38.8	33.19
	1993	**1999**
Cropping Intensity	126	138.7

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	53.2%	58.0%
Gross Cropped Area to Total Area	55.7%	80.4%
Net Irrigated to Net Sown Area	7.9%	53.0%
Cropped Area under Food Grains	91.2%	65.2%
Yield of Food Grains (in kg. per hectare)	951	1301
Per Capita Food Production (in kgs.)		380.6

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Gadarwara	368315	319895	48420	13.1%	75.0%	74.0%	81.2%	65.1%	899	904	43.45	40.80
Narsinghpur	192030	135799	56231	29.3%	82.4%	80.1%	87.7%	74.2%	921	920	37.52	42.19
Gotegaon	173985	150568	23417	13.5%	78.0%	76.5%	87.0%	67.7%	921	940	46.10	44.57
Kareli	138370	113335	25035	18.1%	79.8%	79.0%	83.5%	70.9%	906	906	44.11	41.72
Tendukhera	84699	84699	-	-	81.8%	81.8%	0.0%	73.5%	911	943	43.94	43.29

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Narsinghpur	835.48	60.2%	79.5%	0.45	132	40.46	30.65	71.066	White
Gotegaon	804.99	71.4%	102.4%	0.45	143	46.4	32.38	59.252	White
Kareli	644.34	62.4%	80.2%	0.43	129	35.21	27.45	27.193	White
Saikheda	522.99	81.0%	103.1%	0.45	127	38.81	30.49	49.096	White
Babai Chichli	830.64	47.7%	66.3%	0.36	139	50.8	36.17	46.117	White
Chawarpatha	827.36	77.3%	91.4%	0.48	118	27.4	23.18	44.723	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Narsinghpur	17.85	21.44	16.76	22.66	2519
Gotegaon	20.15	18.93	24.6	64.94	3836
Kareli	14.96	13.9	16.92	63.83	2422
Saikheda	15.7	5.19	4.78	8.82	3892
Babai Chichli	17.71	13.13	1.81	18.37	4397
Chawarpatha	15.75	10.25	10.52	72.68	2930

NEEMUCH

Basic Details on the District

Area (in sq. km)	4256
Total Inhabited Villages	676
Total Habitations	808
Forest Villages	28
Towns (Class I to IV) and Major Towns	8
Neemuch	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
No Schedule V area	

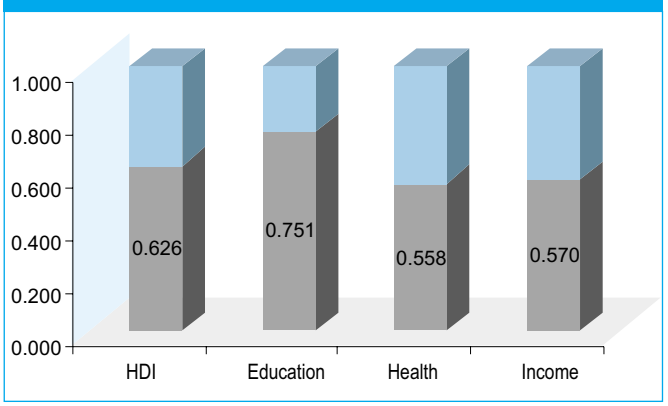
Demography

	1991	2001
Population	598339	725457
Share of Madhya Pradesh Population	1.23%	1.20%
Urban Population	28.0%	27.9%
Population of Scheduled Castes (SC)	12.8%	n.a.
Population of Scheduled Tribes (ST)	7.9%	n.a.
Density of Population (per sq. kms.)	141	170
Decadal Growth (%)	**1981-91**	**1991- 00**
All	22.58	21.25
Rural	n.a.	21.4
Urban	n.a.	20.85

Human Development Indices - 2002

Human Development Index (HDI)	0.626
Rank in Madhya Pradesh : HDI	7
Gender Related Development Index (GDI)	0.591
Rank in Madhya Pradesh : GDI	8

Graph on Human Development Index



Administrative Information

Janpad Panchayats	3
Gram Panchayats	214
Tehsils	3
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	n.a.	n.a.
	1991	**2001**
Life Expectancy (years)	54.5	58.5
	1976-81	**1984-90**
Crude Birth Rate	n.a.	n.a.

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	397.76	295.40
	1996	**2000**
FPS per lakh population	n.a.	27

Gender

	1991	2001
Life Expectancy of Females at Birth	54.2	56.9
Child Sex Ratio	948	928
Girl Child Mortality (birth to age 1 year)	n.a.	n.a.
Girl Child Mortality (up to age 5 years)	n.a.	n.a.
Total Fertility Rate	n.a.	n.a.
Gender Ratio : All	943	950
Rural	952	960
Urban	922	925
General non SC/ ST Gender Ratio	943	n.a.
SC Gender Ratio	950	n.a.
ST Gender Ratio	930	n.a.
Workers Participation Rate - Female	39.4%	40.1%
	2000	
Female Enrolment Rate (Ages 6-14)	91.0%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	674
Percentage of villages not connected with pucca roads	63.7
	1991
Households without access to electricity, SDW and toilet facilities	n.a.

Deprivation

Estimated Poverty Rate (1993-1994)	n.a.
Children as main workers (1991)	n.a.
Children as main and marginal workers (1991)	n.a.
Percentage of safe deliveries (1998-1999)	n.a.
Percentage of children fully immunised (1998-1999)	n.a.

Forests

	1999
Per Capita Forest Area (in hectares)	n.a.
Annual Rate of Afforestation (%) (1993-1999)	n.a.
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	50.3%	66.5%
Male	69.3%	83.0%
Female	30.0%	49.1%
Rural	42.2%	61.5%
Urban	70.6%	79.0%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	92.5%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

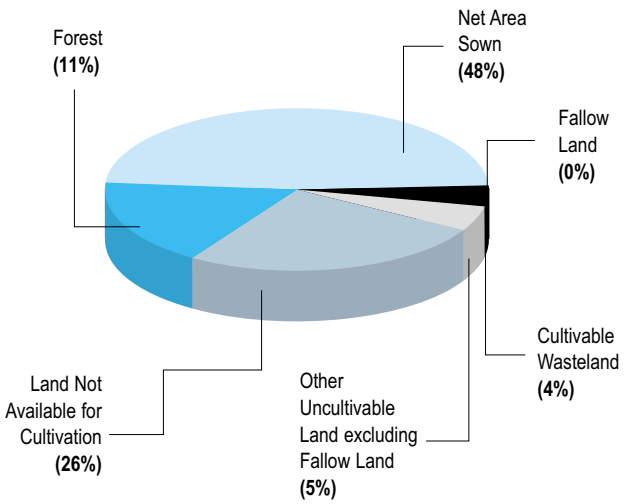
Employment

	1991	2001
Worker Participation Rate :		
All	47.1%	48.0%
Rural	52.8%	53.6%
Urban	32.5%	33.6%
Share of Primary Sector (%)	78.5%	n.a.
Share of Secondary Sector (%)	7.1%	n.a.
Share of Tertiary Sector (%)	14.45%	n.a.
Employment in Registered Industries (2000)		n.a.
Employment Rate of Growth (1991 to 2001)	n.a.	23.5%
Total Employment in Farm Sector (%)	78.1%	75.36
Rural Employment in Non Farm Sector (%)	9.5%	12.1%
Agriculture Labour (%)	17.2%	24.6%

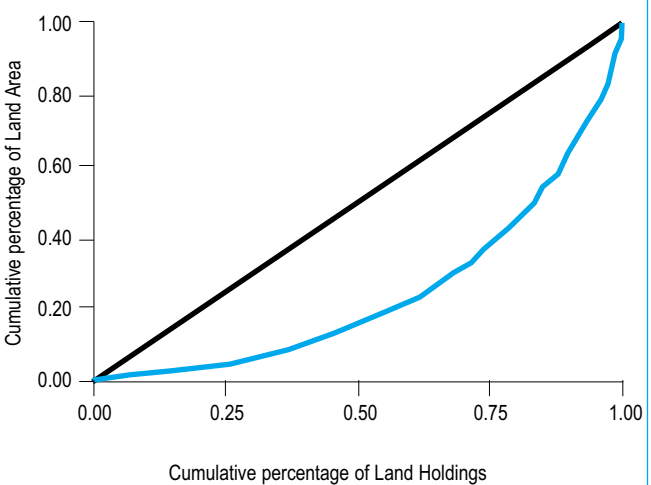
Infrastructure / Facilities

	2001
Middle Schools per lakh population	38.5
High Schools per lakh population	12.1
Rural Population per Primary Health Centre	29067
Population Serviced Sub Health Centre	4983
	2000
Road length per 100 sq. km. (1999)	16.2
Telephone per lakh population	2620
Population per Post Office (1994-95)	n.a.
Registered establishments under Factories Act (1997)	n.a.
Per capita consumption of electricity (non industrial) in kwh	276.6

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	n.a.	188.6
Gross Cropped Area (in 000' ha.)	n.a.	305.5
Double Cropped Area to Net Area Sown	n.a.	62.0
Net Irrigated Area (in 000' ha.)	n.a.	73.1
Gross Irrigated Area (in 000' ha.)	n.a.	73.3
	1992-93	**1998-99**
Agriculture Intensity	n.a.	162.0

Credit

	2000
Credit-Deposit Ratio	34.49
Commercial Banks (per 1000 population)	0.05
Crop lending per hectare of cultivated land	n.a.
Crop lending per hectare of irrigated land	n.a.

Habitat

	2001	
Number of towns reporting slums	8	
Urban population residing in slums	11.59%	
Level of ground water development	71.49	
Average annual rainfall (in mm)	823.00	
	1995	**2000**
Percentage area under wasteland	n.a.	n.a.

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	n.a.	205.6
Pulses Per Capita (Kg)	n.a.	89.8
Oilseeds Per Capita (Kg)	n.a.	160.2
Average Landholding (Ha)	n.a.	n.a.
Gross Irrigated Area ('000 Ha)		73.3
Fertiliser Consumption Per Hectare (Kg)	n.a.	75.03
	1993	**1999**
Cropping Intensity	n.a.	162.0

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	Included in Mandsaur	47.9%
Gross Cropped Area to Total Area	n.a.	77.5%
Net Irrigated to Net Sown Area	n.a.	38.7%
Cropped Area under Food Grains	n.a.	42.4%
Yield of Food Grains (in kg. per hectare)	n.a.	1592
Per Capita Food Production (in kgs.)		295.4

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Neemuch	271742	148532	123210	45.3%	71.7%	64.2%	80.5%	56.4%	940	935	22.64	41.99
Jawad	218390	179730	38660	17.7%	64.2%	61.5%	76.5%	46.3%	955	914	20.25	52.14
Manasa	235325	194942	40383	17.2%	62.4%	59.3%	76.9%	43.3%	958	934	30.48	51.09

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Neemuch	798.31	75.2%	110.7%	0.49	147	37.7	25.67	159.890	Over Exploited
Jawad	1441.72	40.4%	59.8%	0.39	148	46.81	31.95	46.575	White
Manasa	1396.02	51.8%	75.8%	0.45	146	34.77	23.81	67.669	Grey

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Neemuch	14.47	6.97	25.55	18.42	3144
Jawad	11.55	15.02	18.8	28.36	4019
Manasa	13.12	7.63	16.69	43.58	3470

PANNA

Basic Details on the District

Area (in sq. km)	7135
Total Inhabited Villages	939
Total Habitations	1339
Forest Villages	0
Towns (Class I to IV) and Major Towns	6
Panna	
Crop Zone :	
Wheat Rice Zone (in some parts), Wheat Jowar (in some parts)	
Soil type :	
Mixed Red and Black Soils (Medium)	
Agri Climatic Zone :	
Chhattisgarh Plains (in some parts), Kymore Plateau and Satpura Hills (in some parts) , Bundelkhand Region (in some parts)	
Schedule V Areas :	
No Schedule V area	

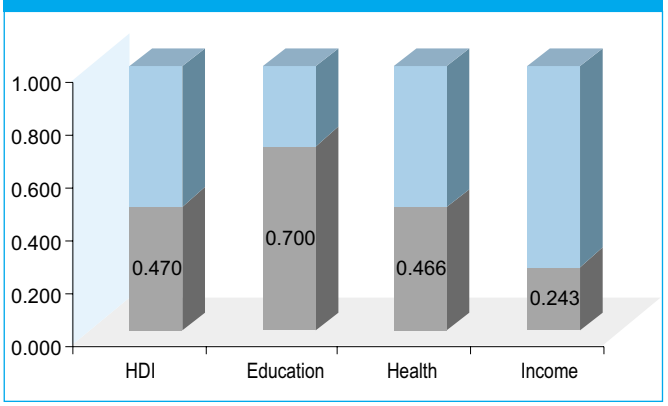
Demography

	1991	2001
Population	687945	854235
Share of Madhya Pradesh Population	1.42%	1.41%
Urban Population	13.0%	12.7%
Population of Scheduled Castes (SC)	20.4%	n.a.
Population of Scheduled Tribes (ST)	14.9%	n.a.
Density of Population (per sq. kms.)	96	120
Decadal Growth (%)	**1981-91**	**1991- 00**
All	27.40	24.17
Rural	n.a.	24.69
Urban	n.a.	20.74

Human Development Indices - 2002

Human Development Index (HDI)	0.470
Rank in Madhya Pradesh : HDI	41
Gender Related Development Index (GDI)	0.462
Rank in Madhya Pradesh : GDI	42

Graph on Human Development Index



Administrative Information

Janpad Panchayats	5
Gram Panchayats	378
Tehsils	5
Tribal Blocks	0
Legislative Assembly Seats	3

Health

	1981	1991
Infant Mortality Rate	175	133
	1991	**2001**
Life Expectancy (years)	48.5	53.0
	1976-81	**1984-90**
Crude Birth Rate	39.4	42.2

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	278.80	237.40
	1996	**2000**
FPS per lakh population	40.68	38

Gender

	1991	2001
Life Expectancy of Females at Birth	46.6	50.0
Child Sex Ratio	948	931
Girl Child Mortality (birth to age 1 year)	129	n.a.
Girl Child Mortality (up to age 5 years)	207	n.a.
Total Fertility Rate	5.9	n.a.
Gender Ratio : All	897	907
Rural	901	910
Urban	869	886
General non SC/ ST Gender Ratio	888	n.a.
SC Gender Ratio	887	n.a.
ST Gender Ratio	948	n.a.
Workers Participation Rate - Female	28.7%	34.8%
	2000	
Female Enrolment Rate (Ages 6-14)	83.7%	

Basic Amenities

	2000
Habitations with SDW facility	98.8%
Habitations without 40 lpd water availability	1.2%
Number of villages electrified	921
Percentage of villages not connected with pucca roads	65.0
	1991
Households without access to electricity, SDW and toilet facilities	59.63

Deprivation

Estimated Poverty Rate (1993-1994)	23.8%
Children as main workers (1991)	5.6%
Children as main and marginal workers (1991)	7.9%
Percentage of safe deliveries (1998-1999)	13.5
Percentage of children fully immunised (1998-1999)	10.7

Forests

	1999
Per Capita Forest Area (in hectares)	0.332
Annual Rate of Afforestation (%) (1993-1999)	-1.31
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra, Aonla, Achar Guthli	

Education

	1991	2001
Literacy (%) : All	33.7%	61.6%
Male	46.3%	74.0%
Female	19.4%	47.8%
Rural	29.3%	59.2%
Urban	62.3%	77.7%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	86.8%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

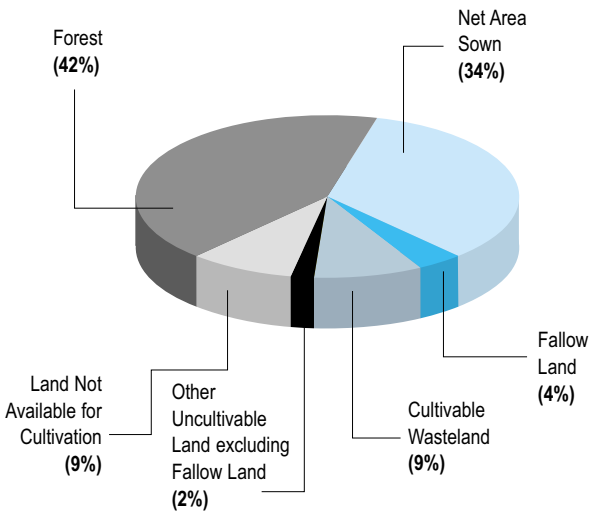
Employment

	1991	2001
Worker Participation Rate :		
All	41.6%	43.5%
Rural	43.2%	45.5%
Urban	30.7%	29.7%
Share of Primary Sector (%)	86.3%	n.a.
Share of Secondary Sector (%)	4.4%	n.a.
Share of Tertiary Sector (%)	9.28%	n.a.
Employment in Registered Industries (2000)		1427
Employment Rate of Growth (1991 to 2001)	n.a.	29.9%
Total Employment in Farm Sector (%)	84.4%	78.94
Rural Employment in Non Farm Sector (%)	10.1%	15.8%
Agriculture Labour (%)	27.0%	31.0%

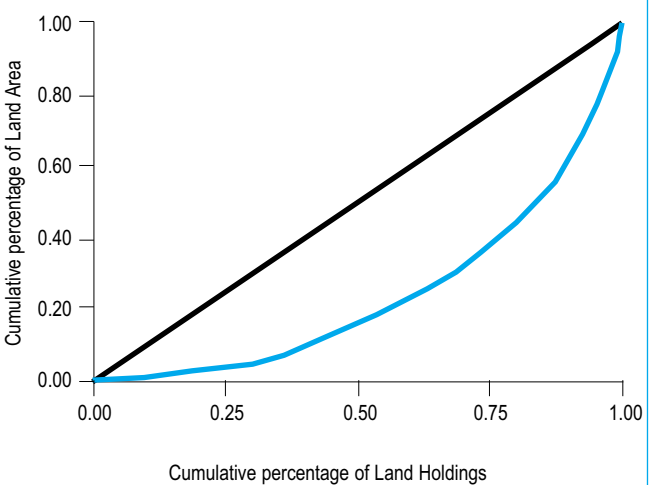
Infrastructure / Facilities

	2001
Middle Schools per lakh population	39.7
High Schools per lakh population	9.0
Rural Population per Primary Health Centre	49739
Population Serviced Sub Health Centre	5329
	2000
Road length per 100 sq. km. (1999)	16.2
Telephone per lakh population	533
Population per Post Office (1994-95)	4955
Registered establishments under Factories Act (1997)	25
Per capita consumption of electricity (non industrial) in kwh	49.4

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	212.7	243.2
Gross Cropped Area (in 000' ha.)	243.1	284.0
Double Cropped Area to Net Area Sown	14.3	16.8
Net Irrigated Area (in 000' ha.)	14.2	50.3
Gross Irrigated Area (in 000' ha.)	15.8	50.3
	1992-93	**1998-99**
Agriculture Intensity	112.8	116.8

Credit

	2000
Credit-Deposit Ratio	43.87
Commercial Banks (per 1000 population)	0.02
Crop lending per hectare of cultivated land	650.8
Crop lending per hectare of irrigated land	4221.2

Habitat

	2001	
Number of towns reporting slums	6	
Urban population residing in slums	0.00%	
Level of ground water development	19.61	
Average annual rainfall (in mm)	1213.00	
	1995	**2000**
Percentage area under wasteland	8.2%	17.91%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	219.1	163.9
Pulses Per Capita (Kg)	59.7	2.7
Oilseeds Per Capita (Kg)	14.1	13.1
Average Landholding (Ha)	2.4	2.03
Gross Irrigated Area ('000 Ha)		50.3
Fertiliser Consumption Per Hectare (Kg)	21.3	26.18
	1993	**1999**
Cropping Intensity	113	116.8

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	30.3%	34.6%
Gross Cropped Area to Total Area	34.6%	40.4%
Net Irrigated to Net Sown Area	6.7%	20.7%
Cropped Area under Food Grains	83.8%	88.9%
Yield of Food Grains (in kg. per hectare)	598	769
Per Capita Food Production (in kgs.)		237.4

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Ajaigarh	145418	131439	13979	9.6%	55.3%	53.6%	70.0%	39.7%	874	879	21.62	44.99
Panna	213257	142709	70548	33.1%	62.5%	52.6%	81.3%	50.1%	896	931	26.97	38.26
Pawai	165952	153949	12003	7.2%	60.1%	59.3%	69.9%	46.1%	897	945	34.53	45.06
Gunnor	178953	167339	11614	6.5%	63.6%	63.0%	72.3%	50.4%	914	947	35.17	46.66
Shahnagar	150655	150655	-	-	65.7%	65.7%	0.0%	51.1%	959	954	35.93	44.07

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Panna	1350.47	29.0%	33.8%	0.35	117	27.7	23.77	12.675	White
Gunnor	967.58	65.6%	66.5%	0.48	101	7.86	7.75	7.544	White
Pawai	1277.82	44.0%	49.9%	0.44	113	9.95	8.78	6.556	White
Shahnagar	1646.82	25.9%	31.3%	0.34	121	12.56	10.4	8.585	White
Ajaigarh	603.2	54.9%	62.6%	0.32	114	32.21	28.27	97.515	Dark

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Panna	19.88	21.69	21.99	29.47	2626
Gunnor	24.19	9.07	24.49	10.76	4747
Pawai	22.76	13.88	11.11	19.4	4245
Shahnagar	16.85	28.68	9.11	14.02	4589
Ajaigarh	20.73	8.56	23.38	36.13	4517

RAISEN

Basic Details on the District

Area (in sq. km)	8466
Total Inhabited Villages	1429
Total Habitations	1925
Forest Villages	31
Towns (Class I to IV) and Major Towns	9
Mandideep	
Crop Zone :	
Wheat Zone	
Soil type :	
Medium Black and Deep Black (Medium/ Heavy)	
Agri Climatic Zone :	
Vindhya Plateau	
Schedule V Areas :	
No Schedule V area	

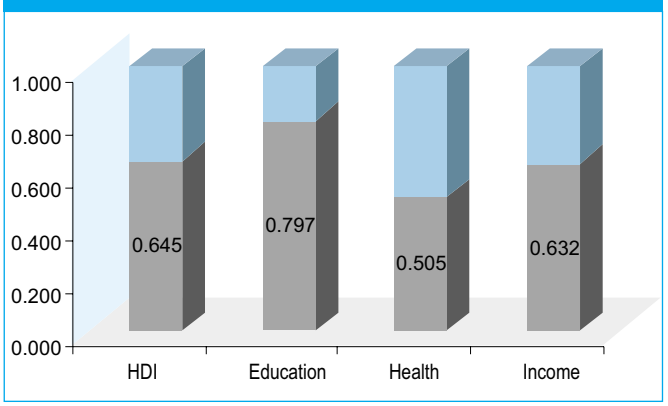
Demography

	1991	2001
Population	876461	1120159
Share of Madhya Pradesh Population	1.80%	1.86%
Urban Population	15.7%	18.5%
Population of Scheduled Castes (SC)	16.6%	n.a.
Population of Scheduled Tribes (ST)	14.4%	n.a.
Density of Population (per sq. kms.)	104	132
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.35	27.80
Rural	n.a.	23.65
Urban	n.a.	50.08

Human Development Indices - 2002

Human Development Index (HDI)	0.645
Rank in Madhya Pradesh : HDI	3
Gender Related Development Index (GDI)	0.584
Rank in Madhya Pradesh : GDI	12

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	501
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	152	124
	1991	**2001**
Life Expectancy (years)	51.5	55.3
	1976-81	**1984-90**
Crude Birth Rate	39.6	39.1

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	439.61	418.37
	1996	**2000**
FPS per lakh population	39.86	38

Gender

	1991	2001
Life Expectancy of Females at Birth	52.4	57.2
Child Sex Ratio	928	943
Girl Child Mortality (birth to age 1 year)	159	n.a.
Girl Child Mortality (up to age 5 years)	170	n.a.
Total Fertility Rate	5.3	n.a.
Gender Ratio : All	879	880
Rural	884	884
Urban	855	864
General non SC/ ST Gender Ratio	873	n.a.
SC Gender Ratio	867	n.a.
ST Gender Ratio	927	n.a.
Workers Participation Rate - Female	22.0%	21.8%
	2000	
Female Enrolment Rate (Ages 6-14)	91.7%	

Basic Amenities

	2000
Habitations with SDW facility	99.8%
Habitations without 40 lpd water availability	0.5%
Number of villages electrified	1349
Percentage of villages not connected with pucca roads	74.7
	1991
Households without access to electricity, SDW and toilet facilities	26.72

Deprivation

Estimated Poverty Rate (1993-1994)	34.1%
Children as main workers (1991)	3.6%
Children as main and marginal workers (1991)	4.9%
Percentage of safe deliveries (1998-1999)	29.4
Percentage of children fully immunised (1998-1999)	70.6

Forests

	1999
Per Capita Forest Area (in hectares)	0.251
Annual Rate of Afforestation (%) (1993-1999)	0.84
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	40.8%	72.8%
Male	54.0%	82.2%
Female	25.5%	61.9%
Rural	36.1%	71.5%
Urban	65.1%	78.3%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	93.5%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

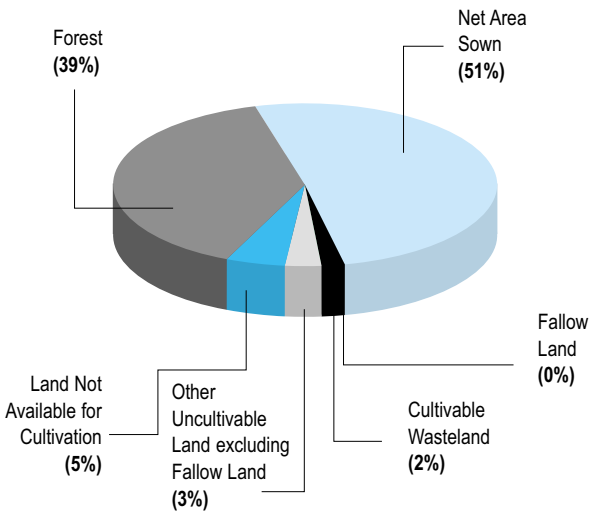
Employment

	1991	2001
Worker Participation Rate :		
All	37.4%	36.6%
Rural	38.7%	38.1%
Urban	30.0%	29.7%
Share of Primary Sector (%)	78.6%	n.a.
Share of Secondary Sector (%)	9.0%	n.a.
Share of Tertiary Sector (%)	12.34%	n.a.
Employment in Registered Industries (2000)		24295
Employment Rate of Growth (1991 to 2001)	n.a.	25.1%
Total Employment in Farm Sector (%)	78.1%	72
Rural Employment in Non Farm Sector (%)	13.7%	18.1%
Agriculture Labour (%)	37.6%	37.9%

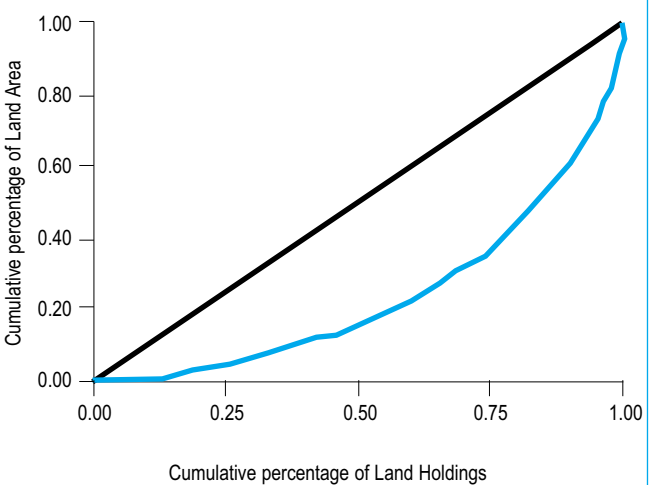
Infrastructure / Facilities

	2001
Middle Schools per lakh population	33.0
High Schools per lakh population	11.2
Rural Population per Primary Health Centre	39710
Population Serviced Sub Health Centre	5219
	2000
Road length per 100 sq. km. (1999)	11.2
Telephone per lakh population	938
Population per Post Office (1994-95)	4719
Registered establishments under Factories Act (1997)	172
Per capita consumption of electricity (non industrial) in kwh	131.8

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	402.8	426.2
Gross Cropped Area (in 000' ha.)	407.5	551.4
Double Cropped Area to Net Area Sown	1.2	29.4
Net Irrigated Area (in 000' ha.)	15.7	147.7
Gross Irrigated Area (in 000' ha.)	15.7	147.7
	1992-93	**1998-99**
Agriculture Intensity	121.9	129.4

Credit

	2000
Credit-Deposit Ratio	82.91
Commercial Banks (per 1000 population)	0.02
Crop lending per hectare of cultivated land	612.5
Crop lending per hectare of irrigated land	2459.3

Habitat

	2001	
Number of towns reporting slums	9	
Urban population residing in slums	0.00%	
Level of ground water development	34.38	
Average annual rainfall (in mm)	1330.40	
	1995	**2000**
Percentage area under wasteland	8.0%	9.86%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	286.9	237.1
Pulses Per Capita (Kg)	152.7	56.4
Oilseeds Per Capita (Kg)	103.4	147.0
Average Landholding (Ha)	4.1	3.57
Gross Irrigated Area ('000 Ha)		147.7
Fertiliser Consumption Per Hectare (Kg)	28.0	36.63
	1993	**1999**
Cropping Intensity	122	129.4

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	47.5%	50.2%
Gross Cropped Area to Total Area	48.0%	65.0%
Net Irrigated to Net Sown Area	3.9%	34.7%
Cropped Area under Food Grains	84.4%	70.8%
Yield of Food Grains (in kg. per hectare)	722	1143
Per Capita Food Production (in kgs.)		418.4

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Raisen	193118	150780	42338	21.9%	70.9%	68.7%	78.3%	59.0%	891	958	35.66	34.84
Gairatganj	104760	96665	8095	7.7%	82.1%	81.9%	84.7%	75.1%	873	951	36.05	38.91
Begamganj	126743	96180	30563	24.1%	81.7%	82.7%	78.6%	74.4%	866	1031	28.72	40.55
Goharganj	213415	144846	68569	32.1%	69.1%	64.8%	78.1%	56.9%	870	925	34.07	36.64
Baraily	218944	175459	43485	19.9%	72.7%	71.3%	77.8%	61.1%	876	919	42.00	33.51
Silwani	125992	125992	-	-	70.6%	70.6%	0.0%	60.4%	905	934	46.09	38.69
Udaipura	137187	123397	13790	10.1%	68.0%	67.0%	76.9%	55.5%	885	907	44.12	36.48

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Sanchi	751.72	81.3%	111.9%	0.51	138	37.65	27.36	30.270	White
Obedullaganj	1527.57	35.7%	47.4%	0.51	133	34.79	26.23	44.267	White
Begamganj	874.05	63.1%	70.9%	0.69	112	13.04	11.62	51.133	White
Gairatganj	825.14	60.3%	70.0%	0.65	116	13.63	11.73	52.185	White
Silwani	1067.13	48.7%	57.7%	0.52	118	20.54	17.34	44.907	White
Baraily	1229.28	71.5%	97.2%	0.51	136	47.26	34.74	26.353	White
Udaipura	681.18	89.2%	96.8%	0.58	108	13.36	12.31	28.599	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Sanchi	19.95	11.46	25.67	0.27	2512
Obedullaganj	13.02	28.99	12.57	19.28	3533
Begamganj	19.07	10.51	6.86	8.25	2674
Gairatganj	20.75	11.73	8.6	16.36	5072
Silwani	11.81	33.64	9.46	8.13	7663
Baraily	20.39	8.57	13.42	22.62	3015
Udaipura	17.32	10.56	11.3	15.48	2924

RAJGARH

Basic Details on the District

Area (in sq. km)	6154
Total Inhabited Villages	1664
Total Habitations	2163
Forest Villages	5
Towns (Class I to IV) and Major Towns	12
Beaora	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
No Schedule V area	

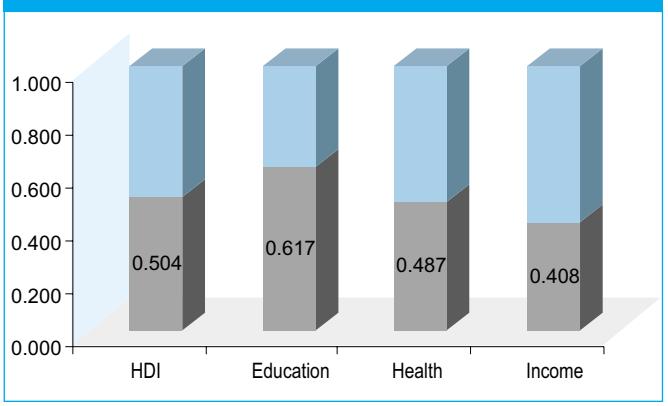
Demography

	1991	2001
Population	992764	1253246
Share of Madhya Pradesh Population	2.04%	2.08%
Urban Population	16.8%	17.3%
Population of Scheduled Castes (SC)	18.0%	n.a.
Population of Scheduled Tribes (ST)	3.3%	n.a.
Density of Population (per sq. kms.)	161	204
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.88	26.24
Rural	n.a.	25.45
Urban	n.a.	30.16

Human Development Indices - 2002

Human Development Index (HDI)	0.504
Rank in Madhya Pradesh : HDI	34
Gender Related Development Index (GDI)	0.548
Rank in Madhya Pradesh : GDI	25

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	569
Tehsils	6
Tribal Blocks	0
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	164	122
	1991	**2001**
Life Expectancy (years)	50.8	54.2
	1976-81	**1984-90**
Crude Birth Rate	34.8	37.7

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	282.04	316.09
	1996	**2000**
FPS per lakh population	27.84	28

Gender

	1991	2001
Life Expectancy of Females at Birth	49.0	53.0
Child Sex Ratio	931	944
Girl Child Mortality (birth to age 1 year)	144	n.a.
Girl Child Mortality (up to age 5 years)	198	n.a.
Total Fertility Rate	5.3	n.a.
Gender Ratio : All	923	931
Rural	927	935
Urban	906	914
General non SC/ ST Gender Ratio	924	n.a.
SC Gender Ratio	922	n.a.
ST Gender Ratio	924	n.a.
Workers Participation Rate - Female	38.3%	44.9%
	2000	
Female Enrolment Rate (Ages 6-14)	69.2%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1664
Percentage of villages not connected with pucca roads	87.0
	1991
Households without access to electricity, SDW and toilet facilities	29.85

Deprivation

Estimated Poverty Rate (1993-1994)	28.7%
Children as main workers (1991)	7.2%
Children as main and marginal workers (1991)	11.2%
Percentage of safe deliveries (1998-1999)	25.7
Percentage of children fully immunised (1998-1999)	63.1

Forests

	1999
Per Capita Forest Area (in hectares)	0.009
Annual Rate of Afforestation (%) (1993-1999)	-11.83
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	31.8%	54.0%
Male	46.7%	69.5%
Female	15.6%	37.4%
Rural	25.7%	50.0%
Urban	62.0%	72.7%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	83.3%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

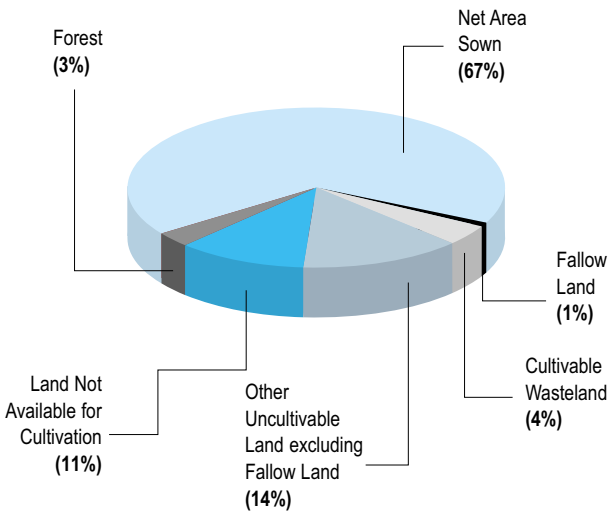
Employment

	1991	2001
Worker Participation Rate :		
All	47.0%	50.0%
Rural	50.4%	53.7%
Urban	30.1%	32.0%
Share of Primary Sector (%)	82.4%	n.a.
Share of Secondary Sector (%)	6.6%	n.a.
Share of Tertiary Sector (%)	11.05%	n.a.
Employment in Registered Industries (2000)		7747
Employment Rate of Growth (1991 to 2001)	n.a.	34.3%
Total Employment in Farm Sector (%)	82.3%	81.89
Rural Employment in Non Farm Sector (%)	9.2%	10.5%
Agriculture Labour (%)	21.4%	27.6%

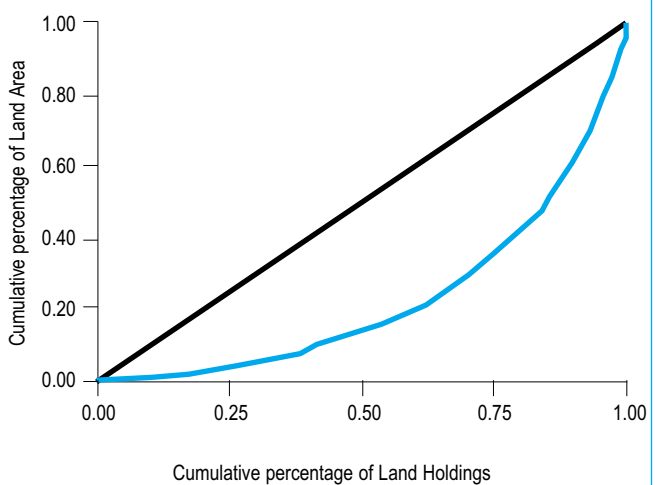
Infrastructure / Facilities

	2001
Middle Schools per lakh population	33.8
High Schools per lakh population	10.8
Rural Population per Primary Health Centre	33422
Population Serviced Sub Health Centre	6242
	2000
Road length per 100 sq. km. (1999)	17.3
Telephone per lakh population	799
Population per Post Office (1994-95)	6588
Registered establishments under Factories Act (1997)	124
Per capita consumption of electricity (non industrial) in kwh	245.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	394.6	414.8
Gross Cropped Area (in 000' ha.)	437.1	603.4
Double Cropped Area to Net Area Sown	10.8	45.5
Net Irrigated Area (in 000' ha.)	33.1	169.3
Gross Irrigated Area (in 000' ha.)	33.6	169.5
	1992-93	**1998-99**
Agriculture Intensity	122.0	145.5

Credit

	2000
Credit-Deposit Ratio	87.55
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	891.0
Crop lending per hectare of irrigated land	3334.1

Habitat

	2001	
Number of towns reporting slums	12	
Urban population residing in slums	0.00%	
Level of ground water development	69.18	
Average annual rainfall (in mm)	1134.00	
	1995	**2000**
Percentage area under wasteland	64.2%	29.57%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	205.5	227.8
Pulses Per Capita (Kg)	76.6	161.6
Oilseeds Per Capita (Kg)	95.4	248.6
Average Landholding (Ha)	3.2	2.43
Gross Irrigated Area ('000 Ha)		169.5
Fertiliser Consumption Per Hectare (Kg)	29.8	47.8
	1993	**1999**
Cropping Intensity	122	145.5

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	64.5%	67.3%
Gross Cropped Area to Total Area	71.5%	97.9%
Net Irrigated to Net Sown Area	8.4%	40.8%
Cropped Area under Food Grains	65.9%	47.8%
Yield of Food Grains (in kg. per hectare)	571	1312
Per Capita Food Production (in kgs.)		316.1

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Khilchipur	148716	133395	15321	10.3%	47.1%	44.0%	73.2%	31.3%	949	968	24.09	48.26
Rajgarh	192184	158972	33212	17.3%	45.4%	38.0%	78.8%	30.7%	935	938	28.06	49.58
Biaora	227103	181686	45417	20.0%	50.7%	44.8%	73.8%	34.0%	918	950	22.86	52.77
Sarangpur	229166	175931	53235	23.2%	63.4%	61.7%	68.8%	46.8%	931	933	32.25	45.53
Narsinghgarh	295041	249775	45266	15.3%	59.4%	57.0%	72.2%	41.2%	924	928	32.11	49.20
Jirapur	161036	136337	24699	15.3%	52.5%	49.1%	71.1%	35.6%	946	969	23.29	55.85

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Rajgarh	1043.57	59.8%	71.7%	0.48	120	18.87	15.73	59.007	White
Khilchipur	772.67	61.7%	74.1%	0.43	120	18.74	15.62	107.807	Over Exploited
Jirapur	808.02	67.4%	89.3%	0.5	132	31.47	24.21	84.223	Grey
Narsinghgarh	1268.22	78.8%	107.3%	0.53	136	31.32	22.99	75.817	Grey
Biaora	1133.73	65.9%	86.0%	0.51	130	29.86	22.89	52.399	White
Sarangpur	871.96	80.0%	107.3%	0.5	134	30.88	23.04	63.390	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Rajgarh	17.04	3.63	11.69	28.57	6437
Khilchipur	11.92	2.63	16.7	14.06	5264
Jirapur	20	0.65	12.38	18.69	4777
Narsinghgarh	21.27	2.8	17.27	17.28	3396
Biaora	18.24	4.1	13.67	15.52	5642
Sarangpur	21.46	7.71	17.66	25.79	9305

RATLAM

Basic Details on the District

Area (in sq. km)	4861
Total Inhabited Villages	1051
Total Habitations	1355
Forest Villages	0
Towns (Class I to IV) and Major Towns	9
Ratlam, Jawra	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
All Blocks of Sailana and Bajna Tehsils	

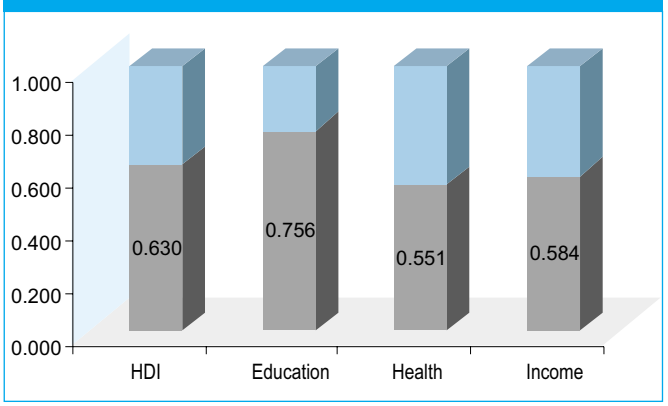
Demography

	1991	2001
Population	971888	1214536
Share of Madhya Pradesh Population	2.00%	2.01%
Urban Population	31.9%	30.2%
Population of Scheduled Castes (SC)	13.7%	n.a.
Population of Scheduled Tribes (ST)	23.3%	n.a.
Density of Population (per sq. kms.)	200	250
Decadal Growth (%)	**1981-91**	**1991- 00**
All	24.17	24.97
Rural	n.a.	27.94
Urban	n.a.	18.62

Human Development Indices - 2002

Human Development Index (HDI)	0.630
Rank in Madhya Pradesh : HDI	6
Gender Related Development Index (GDI)	0.633
Rank in Madhya Pradesh : GDI	2

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	406
Tehsils	6
Tribal Blocks	2
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	141	100
	1991	**2001**
Life Expectancy (years)	55.2	58.1
	1976-81	**1984-90**
Crude Birth Rate	36.1	35.2

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	281.72	359.94
	1996	**2000**
FPS per lakh population	27.97	28

Gender

	1991	2001
Life Expectancy of Females at Birth	56.5	59.3
Child Sex Ratio	961	960
Girl Child Mortality (birth to age 1 year)	132	n.a.
Girl Child Mortality (up to age 5 years)	151	n.a.
Total Fertility Rate	4.6	n.a.
Gender Ratio : All	948	959
Rural	956	965
Urban	932	943
General non SC/ ST Gender Ratio	942	n.a.
SC Gender Ratio	941	n.a.
ST Gender Ratio	972	n.a.
Workers Participation Rate - Female	36.6%	36.1%
	2000	
Female Enrolment Rate (Ages 6-14)	87.8%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	1.2%
Number of villages electrified	1051
Percentage of villages not connected with pucca roads	73.0
	1991
Households without access to electricity, SDW and toilet facilities	9.44

Deprivation

Estimated Poverty Rate (1993-1994)	19.1%
Children as main workers (1991)	8.3%
Children as main and marginal workers (1991)	12.1%
Percentage of safe deliveries (1998-1999)	60.4
Percentage of children fully immunised (1998-1999)	48.8

Forests

	1999
Per Capita Forest Area (in hectares)	0.016
Annual Rate of Afforestation (%) (1993-1999)	-4.58
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	44.2%	67.7%
Male	58.4%	80.1%
Female	19.1%	54.7%
Rural	30.6%	61.0%
Urban	72.1%	82.2%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	91.4%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

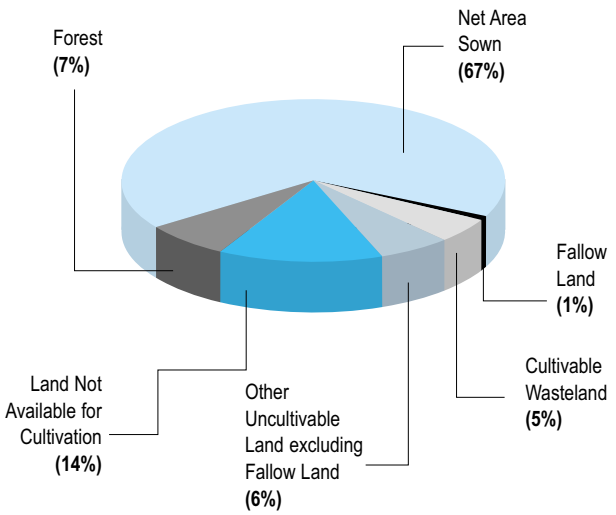
Employment

	1991	2001
Worker Participation Rate :		
All	46.0%	45.0%
Rural	53.3%	51.3%
Urban	30.3%	30.6%
Share of Primary Sector (%)	74.2%	n.a.
Share of Secondary Sector (%)	9.1%	n.a.
Share of Tertiary Sector (%)	16.70%	n.a.
Employment in Registered Industries (2000)		18472
Employment Rate of Growth (1991 to 2001)	n.a.	22.5%
Total Employment in Farm Sector (%)	74.1%	74.76
Rural Employment in Non Farm Sector (%)	7.9%	9.2%
Agriculture Labour (%)	18.1%	28.2%

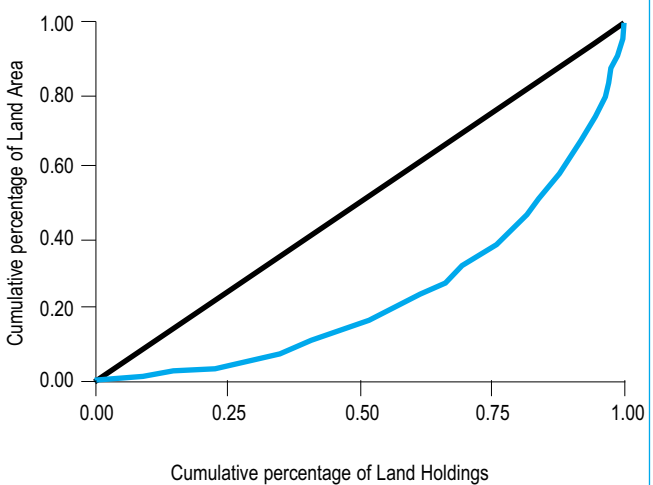
Infrastructure / Facilities

	2001
Middle Schools per lakh population	41.4
High Schools per lakh population	11.2
Rural Population per Primary Health Centre	32582
Population Serviced Sub Health Centre	5103
	2000
Road length per 100 sq. km. (1999)	17.9
Telephone per lakh population	2417
Population per Post Office (1994-95)	5884
Registered establishments under Factories Act (1997)	237
Per capita consumption of electricity (non industrial) in kwh	853.3

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	300.7	325.0
Gross Cropped Area (in 000' ha.)	361.1	518.6
Double Cropped Area to Net Area Sown	20.1	59.5
Net Irrigated Area (in 000' ha.)	40.4	145.5
Gross Irrigated Area (in 000' ha.)	41.1	146.6
	1992-93	**1998-99**
Agriculture Intensity	148.6	159.5

Credit

	2000
Credit-Deposit Ratio	40.65
Commercial Banks (per 1000 population)	0.05
Crop lending per hectare of cultivated land	970.6
Crop lending per hectare of irrigated land	3475.4

Habitat

	2001	
Number of towns reporting slums	9	
Urban population residing in slums	31.59%	
Level of ground water development	90.54	
Average annual rainfall (in mm)	895.00	
	1995	**2000**
Percentage area under wasteland	22.0%	32.50%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	208.3	296.6
Pulses Per Capita (Kg)	73.5	90.9
Oilseeds Per Capita (Kg)	83.5	270.1
Average Landholding (Ha)	3.0	2.67
Gross Irrigated Area ('000 Ha)		146.6
Fertiliser Consumption Per Hectare (Kg)	59.8	88.4
	1993	**1999**
Cropping Intensity	149	159.5

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	61.8%	66.8%
Gross Cropped Area to Total Area	74.2%	106.6%
Net Irrigated to Net Sown Area	13.4%	44.8%
Cropped Area under Food Grains	65.0%	45.9%
Yield of Food Grains (in kg. per hectare)	603	1757
Per Capita Food Production (in kgs.)		359.9

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Ratlam	471754	229799	241955	51.3%	76.5%	65.6%	86.3%	65.4%	948	954	23.14	39.53
Sailana	102062	91159	10903	10.7%	52.9%	48.4%	86.3%	38.0%	981	986	31.35	49.59
Bajna	122537	122537	-	-	35.0%	35.0%	0.0%	21.9%	989	973	38.78	55.22
Jaora	210230	137588	72642	34.6%	69.6%	67.8%	72.8%	55.9%	954	959	27.58	43.24
Piploda	121937	114635	7302	6.0%	69.6%	69.5%	71.0%	54.3%	967	948	34.49	51.64
Alot	186016	151421	34595	18.6%	69.0%	68.0%	73.3%	55.1%	955	955	25.37	47.59

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Ratlam	1268.87	71.4%	104.5%	0.49	146	36.4	24.89	93.922	Dark
Sailana	533.24	52.4%	64.3%	0.42	123	17.14	13.95	34.545	White
Bajna	681.17	44.2%	51.2%	0.34	116	12.98	11.22	14.577	White
Jaora	731.48	77.3%	128.3%	0.52	166	35.94	21.64	151.723	Over Exploited
Piploda	602.5	80.0%	133.5%	0.52	167	39.51	23.94	110.053	Over Exploited
Alot	940.96	70.6%	108.8%	0.54	154	32.17	21.04	73.095	Grey

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Ratlam	13.75	32.8	23.64	52.69	2783
Sailana	1.85	85.7	24.94	22.65	5097
Bajna	1.54	91.02	21.58	32.73	3846
Jaora	26.45	4.51	23.79	41.5	3491
Piploda	16.91	14.5	20.91	41.57	3402
Alot	23.09	0.72	14.98	24.35	3435

REWA

Basic Details on the District

Area (in sq. km)	6314
Total Inhabited Villages	2352
Total Habitations	6985
Forest Villages	0
Towns (Class I to IV) and Major Towns	12
Rewa	
Crop Zone :	
Wheat Rice Zone	
Soil type :	
Mixed Red and Black Soils (Medium)	
Agri Climatic Zone :	
Kymore Plateau and Satpura Hills	
Schedule V Areas :	
No Schedule V area	

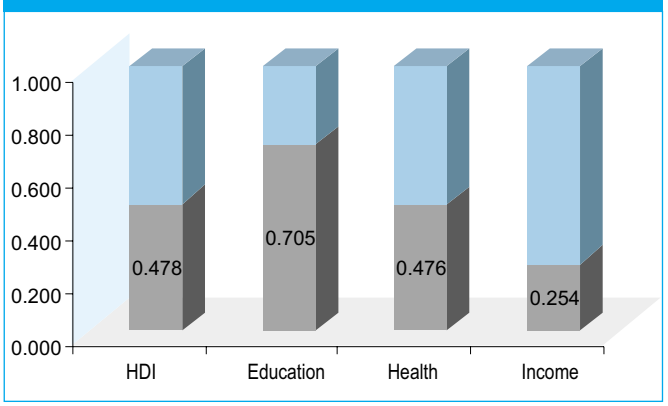
Demography

	1991	2001
Population	1554987	1972333
Share of Madhya Pradesh Population	3.20%	3.27%
Urban Population	15.2%	16.2%
Population of Scheduled Castes (SC)	14.8%	n.a.
Population of Scheduled Tribes (ST)	12.4%	n.a.
Density of Population (per sq. kms.)	246	312
Decadal Growth (%)	**1981-91**	**1991- 00**
All	28.77	26.84
Rural	n.a.	25.31
Urban	n.a.	35.33

Human Development Indices - 2002

Human Development Index (HDI)	0.478
Rank in Madhya Pradesh : HDI	39
Gender Related Development Index (GDI)	0.500
Rank in Madhya Pradesh : GDI	36

Graph on Human Development Index



Administrative Information

Janpad Panchayats	9
Gram Panchayats	815
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	7

Health

	1981	1991
Infant Mortality Rate	155	128
	1991	**2001**
Life Expectancy (years)	50.6	53.6
	1976-81	**1984-90**
Crude Birth Rate	36.0	40.9

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	260.97	204.44
	1996	**2000**
FPS per lakh population	36.21	37

Gender

	1991	2001
Life Expectancy of Females at Birth	48.6	51.0
Child Sex Ratio	935	926
Girl Child Mortality (birth to age 1 year)	127	n.a.
Girl Child Mortality (up to age 5 years)	198	n.a.
Total Fertility Rate	5.8	n.a.
Gender Ratio : All	932	939
Rural	946	950
Urban	858	883
General non SC/ ST Gender Ratio	937	n.a.
SC Gender Ratio	923	n.a.
ST Gender Ratio	912	n.a.
Workers Participation Rate - Female	28.5%	37.7%
	2000	
Female Enrolment Rate (Ages 6-14)	83.7%	

Basic Amenities

	2000
Habitations with SDW facility	99.9%
Habitations without 40 lpd water availability	0.1%
Number of villages electrified	2154
Percentage of villages not connected with pucca roads	55.4
	1991
Households without access to electricity, SDW and toilet facilities	53.69

Deprivation

Estimated Poverty Rate (1993-1994)	29.4%
Children as main workers (1991)	4.0%
Children as main and marginal workers (1991)	5.5%
Percentage of safe deliveries (1998-1999)	20.8
Percentage of children fully immunised (1998-1999)	65

Forests

	1999
Per Capita Forest Area (in hectares)	0.030
Annual Rate of Afforestation (%) (1993-1999)	0.12
Major Non-Timber Forest Produce :	
Tendu Leaves, Aonla, Mahua Flower, Mahua Guthli	

Education

	1991	2001
Literacy (%) : All	44.4%	62.3%
Male	60.7%	76.0%
Female	26.9%	47.8%
Rural	40.5%	59.5%
Urban	65.0%	76.3%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	86.8%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

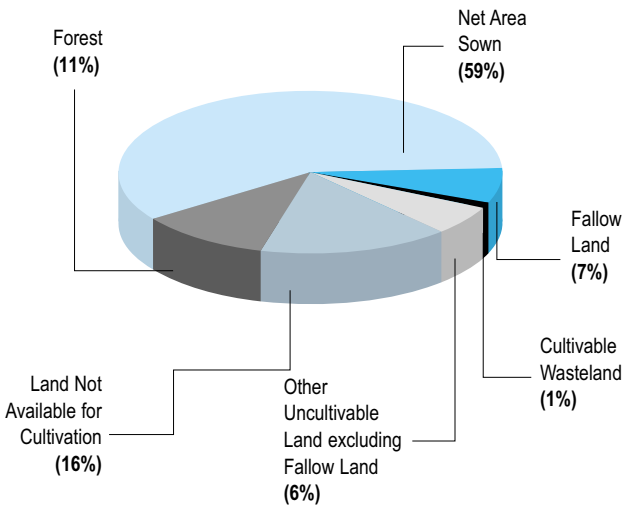
Employment

	1991	2001
Worker Participation Rate :		
All	37.7%	43.8%
Rural	39.1%	46.2%
Urban	30.0%	31.2%
Share of Primary Sector (%)	79.7%	n.a.
Share of Secondary Sector (%)	6.9%	n.a.
Share of Tertiary Sector (%)	13.35%	n.a.
Employment in Registered Industries (2000)		7533
Employment Rate of Growth (1991 to 2001)	n.a.	47.1%
Total Employment in Farm Sector (%)	79.5%	78.3
Rural Employment in Non Farm Sector (%)	13.9%	14.8%
Agriculture Labour (%)	36.9%	34.9%

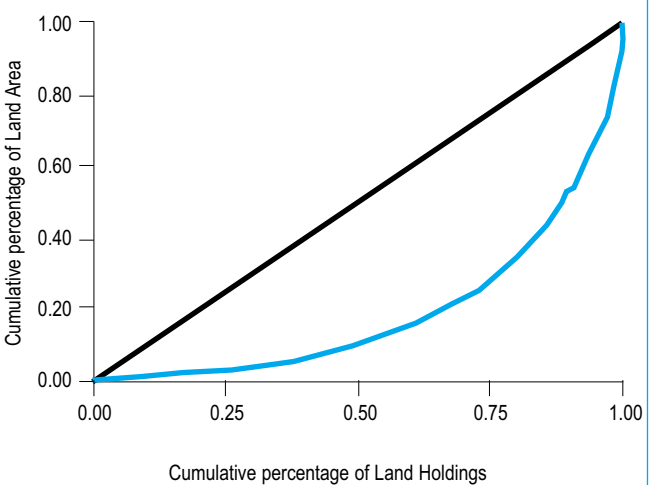
Infrastructure / Facilities

	2001
Middle Schools per lakh population	37.5
High Schools per lakh population	22.6
Rural Population per Primary Health Centre	55062
Population Serviced Sub Health Centre	6164
	2000
Road length per 100 sq. km. (1999)	37.1
Telephone per lakh population	768
Population per Post Office (1994-95)	5189
Registered establishments under Factories Act (1997)	138
Per capita consumption of electricity (non industrial) in kwh	148.2

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	366.9	371.8
Gross Cropped Area (in 000' ha.)	467.9	500.4
Double Cropped Area to Net Area Sown	27.5	34.6
Net Irrigated Area (in 000' ha.)	22.1	87.3
Gross Irrigated Area (in 000' ha.)	22.1	87.4
	1992-93	**1998-99**
Agriculture Intensity	129.7	134.6

Credit

	2000
Credit-Deposit Ratio	30.32
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	503.9
Crop lending per hectare of irrigated land	3007.6

Habitat

	2001	
Number of towns reporting slums	12	
Urban population residing in slums	4.07%	
Level of ground water development	23.99	
Average annual rainfall (in mm)	1035.00	
	1995	**2000**
Percentage area under wasteland	10.8%	12.68%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	217.4	158.1
Pulses Per Capita (Kg)	43.5	39.1
Oilseeds Per Capita (Kg)	5.0	11.3
Average Landholding (Ha)	2.4	2.07
Gross Irrigated Area ('000 Ha)		87.4
Fertiliser Consumption Per Hectare (Kg)	66.1	42.54
	1993	**1999**
Cropping Intensity	130	134.6

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	58.3%	59.1%
Gross Cropped Area to Total Area	74.4%	79.6%
Net Irrigated to Net Sown Area	6.0%	23.5%
Cropped Area under Food Grains	89.6%	88.1%
Yield of Food Grains (in kg. per hectare)	316	872
Per Capita Food Production (in kgs.)		204.4

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Teonthar	393239	368887	24352	6.2%	59.8%	59.1%	71.0%	44.7%	908	904	36.79	46.05
Sirmour	448940	404820	44120	9.8%	62.8%	61.9%	71.3%	48.5%	967	921	35.43	47.09
Mauganj	295500	263744	31756	10.7%	57.6%	57.0%	63.0%	42.2%	966	929	38.74	45.37
Huzur	396389	203460	192929	48.7%	73.2%	65.0%	81.4%	61.6%	895	917	24.03	33.23
Hanumana	205557	190684	14873	7.2%	51.9%	50.9%	65.1%	35.6%	959	969	36.66	44.90
Gurh	107952	95507	12445	11.5%	58.5%	57.2%	68.0%	42.6%	960	944	39.47	50.38
Raipur (Karchulian)	124756	124756	-	-	63.3%	63.3%	0.0%	48.6%	965	942	35.71	46.77

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Rewa	621.92	70.6%	90.8%	0.26	129	25.82	20.08	40.765	White
Raipur(Karchulian)	627	65.2%	87.5%	0.25	134	8.66	6.45	13.510	White
Mauganj	488.29	62.2%	85.0%	0.28	137	13.24	9.96	39.276	White
Hanumana	927.57	68.2%	87.0%	0.41	128	11.7	9.17	1.750	White
Naigarhi	362.78	55.4%	106.7%	0.19	193	13.87	7.19	27.768	White
Teonthar	754.84	65.4%	81.4%	0.34	125	31.85	25.58	12.202	White
Jawa	787.34	43.9%	53.7%	0.24	122	25.26	20.67	11.905	White
Sirmour	827.26	62.7%	80.3%	0.29	128	24.24	18.94	38.034	White
Gangev	577.04	74.0%	90.3%	0.28	122	13	10.66	54.070	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Rewa	14.56	10.05	36.68	100.00	5252
Raipur(Karchulian)	14.97	10.92	21.53	115.38	5891
Mauganj	15.86	11.33	19.46	54.15	5785
Hanumana	14.63	19.66	15.63	43.8	6364
Naigarhi	19.34	6.27	33.63	65.19	4797
Teonthar	13.52	18.73	19.47	34.62	3632
Jawa	16.65	18.65	9.53	65.09	4353
Sirmour	14.72	14.87	24.78	118.67	3426
Gangev	15.71	9.49	7.28	86.72	3945

S A G A R

Basic Details on the District

Area (in sq. km)	10252
Total Inhabited Villages	1868
Total Habitations	2230
Forest Villages	17
Towns (Class I to IV) and Major Towns	13
Sagar, Bina, Khurai	
Crop Zone :	
Wheat Zone	
Soil type :	
Medium Black and Deep Black (Medium/ Heavy)	
Agri Climatic Zone :	
Vindhya Plateau	
Schedule V Areas :	
No Schedule V area	

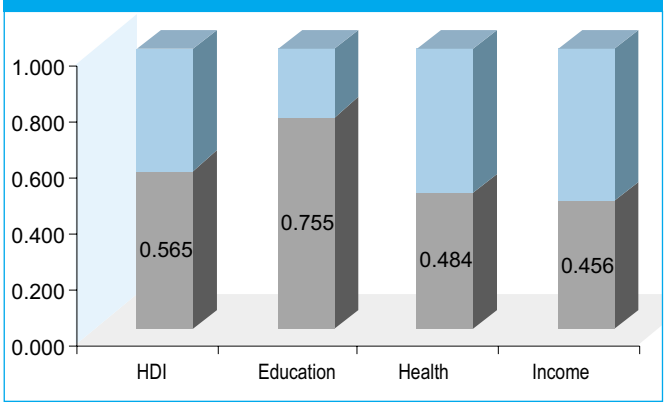
Demography

	1991	2001
Population	1647736	2021783
Share of Madhya Pradesh Population	3.39%	3.35%
Urban Population	29.2%	29.2%
Population of Scheduled Castes (SC)	21.1%	n.a.
Population of Scheduled Tribes (ST)	8.5%	n.a.
Density of Population (per sq. kms.)	161	197
Decadal Growth (%)	**1981-91**	**1991- 00**
All	24.53	22.70
Rural	n.a.	22.64
Urban	n.a.	22.85

Human Development Indices - 2002

Human Development Index (HDI)	0.565
Rank in Madhya Pradesh : HDI	20
Gender Related Development Index (GDI)	0.545
Rank in Madhya Pradesh : GDI	25

Graph on Human Development Index



Administrative Information

Janpad Panchayats	11
Gram Panchayats	753
Tehsils	8
Tribal Blocks	0
Legislative Assembly Seats	8

Health

	1981	1991
Infant Mortality Rate	160	116
	1991	**2001**
Life Expectancy (years)	51.9	54.0
	1976-81	**1984-90**
Crude Birth Rate	37.3	39.6

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	215.87	222.65
	1996	**2000**
FPS per lakh population	35.66	34

Gender

	1991	2001
Life Expectancy of Females at Birth	52.2	54.0
Child Sex Ratio	935	929
Girl Child Mortality (birth to age 1 year)	132	n.a.
Girl Child Mortality (up to age 5 years)	169	n.a.
Total Fertility Rate	5.5	n.a.
Gender Ratio : All	881	884
Rural	884	880
Urban	874	895
General non SC/ ST Gender Ratio	878	n.a.
SC Gender Ratio	869	n.a.
ST Gender Ratio	931	n.a.
Workers Participation Rate - Female	26.2%	30.3%
	2000	
Female Enrolment Rate (Ages 6-14)	88.7%	

Basic Amenities

	2000
Habitations with SDW facility	99.7%
Habitations without 40 lpd water availability	0.5%
Number of villages electrified	1777
Percentage of villages not connected with pucca roads	73.1
	1991
Households without access to electricity, SDW and toilet facilities	35.12

Deprivation

Estimated Poverty Rate (1993-1994)	51.7%
Children as main workers (1991)	3.9%
Children as main and marginal workers (1991)	5.3%
Percentage of safe deliveries (1998-1999)	43
Percentage of children fully immunised (1998-1999)	32.4

Forests

	1999
Per Capita Forest Area (in hectares)	0.137
Annual Rate of Afforestation (%) (1993-1999)	2.19
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	53.4%	68.1%
Male	67.0%	80.0%
Female	37.8%	54.5%
Rural	44.0%	61.6%
Urban	75.5%	82.9%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	90.0%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

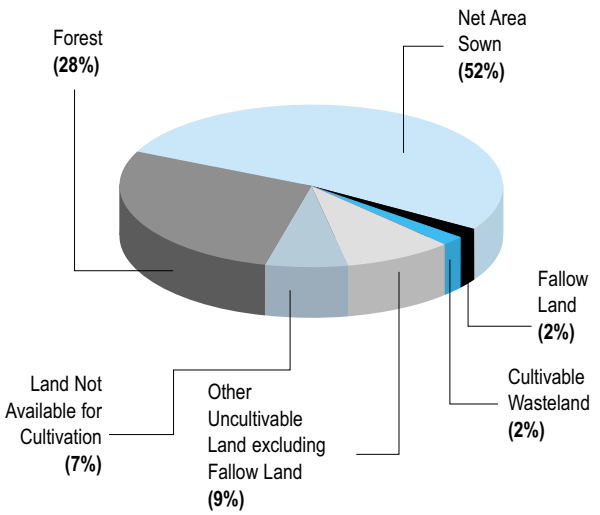
Employment

	1991	2001
Worker Participation Rate :		
All	39.1%	41.5%
Rural	41.8%	44.5%
Urban	32.5%	34.3%
Share of Primary Sector (%)	57.4%	n.a.
Share of Secondary Sector (%)	25.6%	n.a.
Share of Tertiary Sector (%)	17.04%	n.a.
Employment in Registered Industries (2000)		4912
Employment Rate of Growth (1991 to 2001)	n.a.	30.4%
Total Employment in Farm Sector (%)	57.0%	52.34
Rural Employment in Non Farm Sector (%)	27.0%	33.3%
Agriculture Labour (%)	22.7%	25.7%

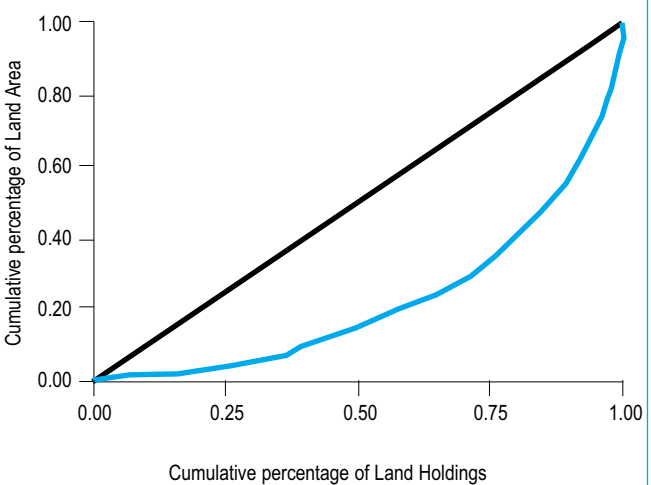
Infrastructure / Facilities

	2001
Middle Schools per lakh population	25.7
High Schools per lakh population	11.1
Rural Population per Primary Health Centre	49325
Population Serviced Sub Health Centre	5838
	2000
Road length per 100 sq. km. (1999)	19.7
Telephone per lakh population	994
Population per Post Office (1994-95)	8569
Registered establishments under Factories Act (1997)	309
Per capita consumption of electricity (non industrial) in kwh	215.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	508.1	532.0
Gross Cropped Area (in 000' ha.)	529.4	689.0
Double Cropped Area to Net Area Sown	4.2	29.5
Net Irrigated Area (in 000' ha.)	18.0	168.4
Gross Irrigated Area (in 000' ha.)	20.0	168.4
	1992-93	**1998-99**
Agriculture Intensity	114.9	129.5

Credit

	2000
Credit-Deposit Ratio	46.51
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	613.6
Crop lending per hectare of irrigated land	2967.1

Habitat

	2001	
Number of towns reporting slums	13	
Urban population residing in slums	5.30%	
Level of ground water development	34.91	
Average annual rainfall (in mm)	1125.00	
	1995	**2000**
Percentage area under wasteland	20.1%	20.45%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	164.5	153.6
Pulses Per Capita (Kg)	51.3	44.9
Oilseeds Per Capita (Kg)	44.8	52.8
Average Landholding (Ha)	2.9	2.50
Gross Irrigated Area ('000 Ha)		168.4
Fertiliser Consumption Per Hectare (Kg)	26.9	35.97
	1993	**1999**
Cropping Intensity	115	129.5

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	49.7%	52.0%
Gross Cropped Area to Total Area	51.7%	67.4%
Net Irrigated to Net Sown Area	3.5%	31.7%
Cropped Area under Food Grains	80.1%	65.5%
Yield of Food Grains (in kg. per hectare)	612	958
Per Capita Food Production (in kgs.)		222.6

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Khurai	294214	252691	41523	14.1%	64.4%	61.5%	81.3%	49.2%	890	932	37.43	42.37
Banda	283694	242931	40763	14.4%	60.2%	56.9%	79.0%	44.3%	877	928	21.35	44.62
Sagar	693691	352742	340949	49.1%	75.8%	66.4%	85.0%	64.1%	879	920	14.08	39.34
Rahatgarh	105633	80416	25217	23.9%	65.2%	65.7%	63.5%	51.4%	876	952	24.54	44.92
Rehli	117636	91723	25913	22.0%	61.9%	57.4%	77.3%	47.4%	886	925	27.48	43.39
Garhakota	101419	74058	27361	27.0%	64.4%	58.5%	79.9%	48.9%	892	934	27.17	43.22
Deori	151275	127463	23812	15.7%	65.9%	62.6%	83.0%	53.1%	892	930	34.83	44.66
Bina	173816	107992	65824	37.9%	70.2%	60.4%	85.0%	56.9%	892	941	38.28	34.69
Kesli	100405	100405	-	-	59.8%	59.8%	0.0%	45.5%	894	944	43.81	44.81

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Sagar	837.13	62.0%	74.1%	0.35	119	24.92	20.87	56.688	White
Rahatgarh	816.12	66.6%	78.6%	0.46	118	22.1	18.72	34.668	White
Jaisingnagar	731.96	60.4%	74.7%	0.45	124	24.27	19.62	39.506	White
Rehli	842.5	67.9%	86.3%	0.42	127	29.39	23.14	44.843	White
Deori	812.47	54.1%	70.1%	0.43	130	31.34	24.19	30.052	White
Kesli	696.39	49.5%	61.6%	0.41	124	21.12	17.17	28.468	White
Banda	807.22	57.7%	66.3%	0.38	115	29.62	29.81	31.873	White
Shahgarh	488.65	43.2%	54.0%	0.28	125	42.8	34.22	13.719	White
Khurai	747.97	83.8%	90.3%	0.64	108	7.82	7.7	33.067	White
Malthone	680.79	69.4%	73.9%	0.46	106	1.9	2.1	17.876	White
Bina	671.57	81.3%	89.7%	0.63	110	13.57	12.3	37.394	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Sagar	25.29	8.59	31.42	33.13	4887
Rahatgarh	23.31	6.71	14.34	20.31	5132
Jaisingnagar	21.88	6.18	1.23	19.31	4661
Rehli	18.08	11.03	21.96	9.77	7561
Deori	14.79	20.19	3.82	12.62	4766
Kesli	11.58	27.76	17.81	5.33	6934
Banda	22.26	11.02	30.97	35.76	6748
Shahgarh	22.19	13.02	25.78	21.50	5466
Khurai	28.94	6.53	15.64	19.30	4877
Malthone	21.4	9.63	8.67	8.47	7260
Bina	24.77	8.28	21.14	19.48	9560

SATNA

Basic Details on the District

Area (in sq. km)	7502
Total Inhabited Villages	1784
Total Habitations	3999
Forest Villages	0
Towns (Class I to IV) and Major Towns	11
Satna	
Crop Zone :	
Wheat Rice Zone	
Soil type :	
Mixed Red and Black Soils (Medium)	
Agri Climatic Zone :	
Kymore Plateau and Satpura Hills	
Schedule V Areas :	
No Schedule V area	

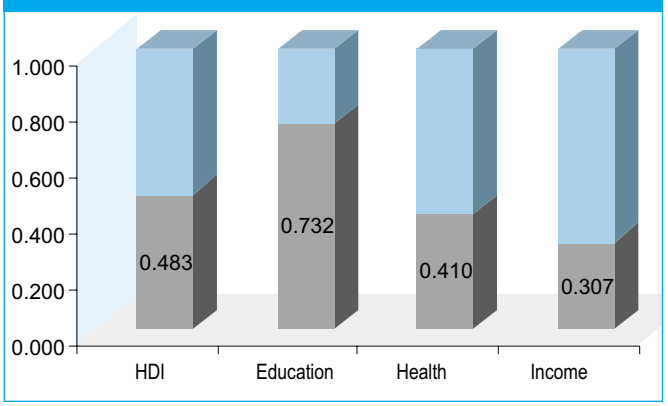
Demography

	1991	2001
Population	1465384	1868648
Share of Madhya Pradesh Population	3.02%	3.09%
Urban Population	19.7%	20.6%
Population of Scheduled Castes (SC)	17.8%	n.a.
Population of Scheduled Tribes (ST)	13.8%	n.a.
Density of Population (per sq. kms.)	195	249
Decadal Growth (%)	**1981-91**	**1991- 00**
All	27.05	27.52
Rural	n.a.	26.09
Urban	n.a.	33.35

Human Development Indices - 2002

Human Development Index (HDI)	0.583
Rank in Madhya Pradesh : HDI	38
Gender Related Development Index (GDI)	0.476
Rank in Madhya Pradesh : GDI	41

Graph on Human Development Index



Administrative Information

Janpad Panchayats	11
Gram Panchayats	710
Tehsils	8
Tribal Blocks	0
Legislative Assembly Seats	7

Health

	1981	1991
Infant Mortality Rate	175	143
	1991	**2001**
Life Expectancy (years)	46.6	49.6
	1976-81	**1984-90**
Crude Birth Rate	37.3	40.7

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	225.33	220.12
	1996	**2000**
FPS per lakh population	47.37	42

Gender

	1991	2001
Life Expectancy of Females at Birth	45.3	47.8
Child Sex Ratio	939	929
Girl Child Mortality (birth to age 1 year)	147	n.a.
Girl Child Mortality (up to age 5 years)	207	n.a.
Total Fertility Rate	5.7	n.a.
Gender Ratio : All	918	926
Rural	929	938
Urban	875	883
General non SC/ ST Gender Ratio	914	n.a.
SC Gender Ratio	922	n.a.
ST Gender Ratio	933	n.a.
Workers Participation Rate - Female	30.0%	30.5%
	2000	
Female Enrolment Rate (Ages 6-14)	87.3%	

Basic Amenities

	2000
Habitations with SDW facility	99.9%
Habitations without 40 lpd water availability	0.1%
Number of villages electrified	1661
Percentage of villages not connected with pucca roads	55.0
	1991
Households without access to electricity, SDW and toilet facilities	46.88

Deprivation

Estimated Poverty Rate (1993-1994)	28.8%
Children as main workers (1991)	4.4%
Children as main and marginal workers (1991)	5.8%
Percentage of safe deliveries (1998-1999)	16.9
Percentage of children fully immunised (1998-1999)	35.9

Forests

	1999
Per Capita Forest Area (in hectares)	0.091
Annual Rate of Afforestation (%) (1993-1999)	-0.80
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	44.7%	65.1%
Male	60.0%	77.8%
Female	27.8%	51.4%
Rural	39.5%	61.6%
Urban	65.0%	78.3%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	89.4%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

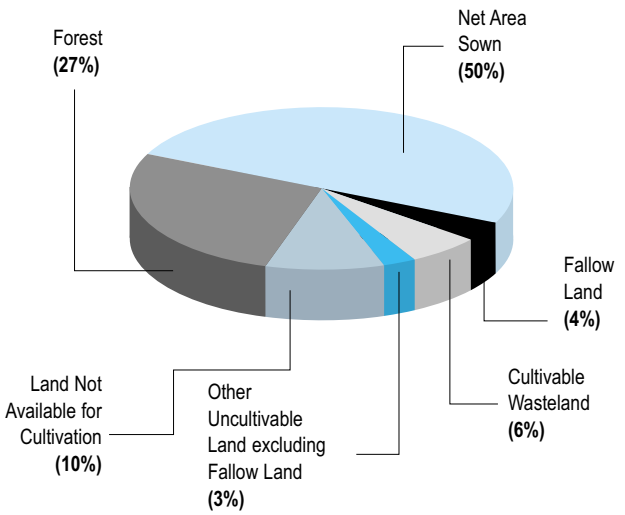
Employment

	1991	2001
Worker Participation Rate :		
All	40.3%	39.9%
Rural	42.4%	41.9%
Urban	32.1%	31.9%
Share of Primary Sector (%)	74.2%	n.a.
Share of Secondary Sector (%)	12.7%	n.a.
Share of Tertiary Sector (%)	13.07%	n.a.
Employment in Registered Industries (2000)		16970
Employment Rate of Growth (1991 to 2001)	n.a.	26.0%
Total Employment in Farm Sector (%)	73.1%	65.98
Rural Employment in Non Farm Sector (%)	17.6%	23.7%
Agriculture Labour (%)	29.2%	31.8%

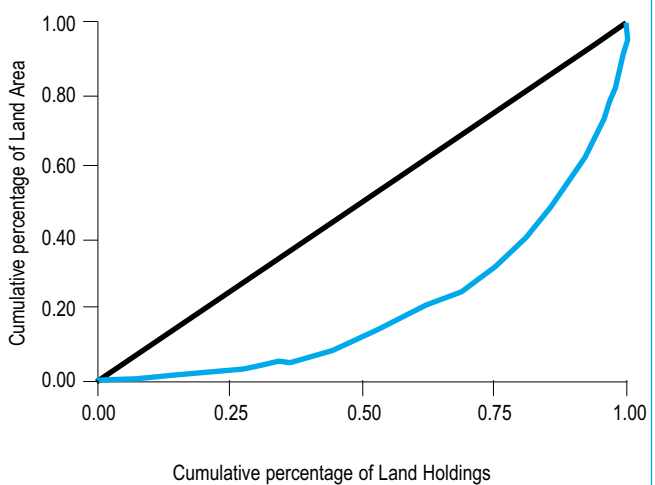
Infrastructure / Facilities

	2001
Middle Schools per lakh population	44.0
High Schools per lakh population	20.2
Rural Population per Primary Health Centre	32957
Population Serviced Sub Health Centre	5748
	2000
Road length per 100 sq. km. (1999)	38.6
Telephone per lakh population	990
Population per Post Office (1994-95)	5675
Registered establishments under Factories Act (1997)	358
Per capita consumption of electricity (non industrial) in kwh	198.2

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	347.5	362.3
Gross Cropped Area (in 000' ha.)	424.3	488.1
Double Cropped Area to Net Area Sown	22.1	34.8
Net Irrigated Area (in 000' ha.)	14.9	106.5
Gross Irrigated Area (in 000' ha.)	14.9	106.5
	1992-93	**1998-99**
Agriculture Intensity	123.0	134.8

Credit

	2000
Credit-Deposit Ratio	40.28
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	669.4
Crop lending per hectare of irrigated land	3685.3

Habitat

	2001	
Number of towns reporting slums	11	
Urban population residing in slums	9.22%	
Level of ground water development	27.13	
Average annual rainfall (in mm)	896.30	
	1995	**2000**
Percentage area under wasteland	15.1%	25.53%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	193.1	183.6
Pulses Per Capita (Kg)	32.3	75.3
Oilseeds Per Capita (Kg)	7.2	15.7
Average Landholding (Ha)	2.0	1.80
Gross Irrigated Area ('000 Ha)		106.5
Fertiliser Consumption Per Hectare (Kg)	45.7	40.52
	1993	**1999**
Cropping Intensity	123	134.8

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	46.8%	48.8%
Gross Cropped Area to Total Area	57.2%	65.7%
Net Irrigated to Net Sown Area	4.3%	29.4%
Cropped Area under Food Grains	89.8%	84.6%
Yield of Food Grains (in kg. per hectare)	514	948
Per Capita Food Production (in kgs.)		220.1

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil*	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Raghurajnagar	660470	379906	280564	42.5%	68.9%	61.0%	79.1%	56.2%	900	923	23.84	36.64
Nagod	199459	179985	19474	9.8%	65.2%	63.5%	81.0%	52.3%	920	916	30.37	39.87
Amarpatan	188013	171648	16365	8.7%	66.3%	65.4%	75.8%	52.4%	949	934	40.74	41.34
Maihar	294618	260271	34347	11.7%	60.2%	58.0%	76.0%	45.1%	941	938	32.05	41.11
Rampur Baghelan	233069	214891	18178	7.8%	66.0%	65.6%	70.6%	52.4%	950	926	38.42	39.76
Uchehra	159668	143006	16662	10.4%	60.5%	58.5%	76.8%	46.1%	931	949	30.53	47.39
Ramnagar	133351	133351	-	-	59.3%	59.3%	0.0%	43.8%	962	940	46.37	42.15

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Satna (Suhawal)	654.52	78.6%	92.2%	0.38	117	17.37	21.83	37.849	White
Chitrakut (Majhgawan)	1550.93	31.2%	35.6%	0.28	114	14.24	16.07	16.683	White
Rampur Baghelan	796.25	72.5%	95.3%	0.35	132	31.55	25.58	30.121	White
Nagod	915.85	57.5%	69.2%	0.37	120	19.84	16.93	34.389	White
Uchehra	871.41	36.6%	44.5%	0.29	121	31.32	25.8	27.321	White
Amarpatan	624.19	63.1%	85.6%	0.3	136	21.82	16.1	34.647	White
Ramnagar	600.67	46.2%	60.6%	0.24	131	9.93	7.57	22.627	White
Maihar	1124.88	46.1%	59.3%	0.26	129	19.14	14.95	19.619	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Satna (Suhawal)	26.29	10.45	15.28	85.36	2611
Chitrakut (Majhgawan)	17.99	18.88	28.82	82.27	3147
Rampur Baghelan	16.42	11.2	15.95	25.73	3535
Nagod	24.51	8.95	9.5	19.57	4347
Uchehra	17.73	19.73	14.69	17.44	5596
Amarpatan	13.66	13.28	37.33	93.13	6660
Ramnagar	13.28	24.8	22.81	53.24	4017
Maihar	16.18	21.09	23.56	93.94	6339

*Data for Tehsil Majhgawan not available separately as it was formed on 18.6.01

SEHORE

Basic Details on the District

Area (in sq. km)	6578
Total Inhabited Villages	1011
Total Habitations	1175
Forest Villages	35
Towns (Class I to IV) and Major Towns	7
Sehore	
Crop Zone :	
Wheat Zone	
Soil type :	
Medium Black and Deep Black (Medium/ Heavy)	
Agri Climatic Zone :	
Vindhya Plateau	
Schedule V Areas :	
No Schedule V area	

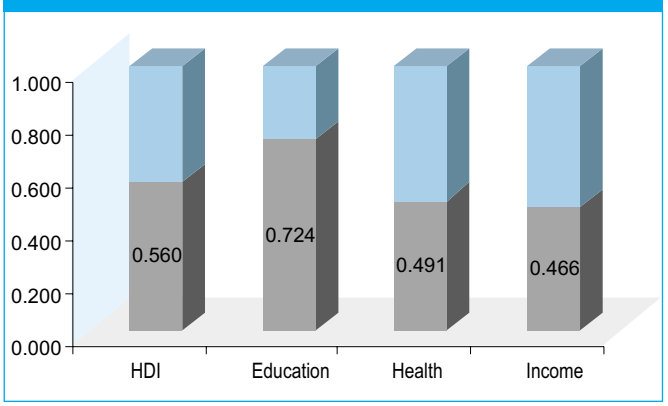
Demography

	1991	2001
Population	841358	1078769
Share of Madhya Pradesh Population	1.73%	1.79%
Urban Population	18.0%	18.0%
Population of Scheduled Castes (SC)	20.3%	n.a.
Population of Scheduled Tribes (ST)	10.2%	n.a.
Density of Population (per sq. kms.)	128	164
Decadal Growth (%)	**1981-91**	**1991- 00**
All	27.99	28.22
Rural	n.a.	28.16
Urban	n.a.	28.47

Human Development Indices - 2002

Human Development Index (HDI)	0.560
Rank in Madhya Pradesh : HDI	22
Gender Related Development Index (GDI)	0.590
Rank in Madhya Pradesh : GDI	9

Graph on Human Development Index



Administrative Information

Janpad Panchayats	5
Gram Panchayats	450
Tehsils	5
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	170	122
	1991	**2001**
Life Expectancy (years)	50.8	54.5
	1976-81	**1984-90**
Crude Birth Rate	36.8	41.2

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	390.56	427.10
	1996	**2000**
FPS per lakh population	22.85	23

Gender

	1991	2001
Life Expectancy of Females at Birth	52.4	57.4
Child Sex Ratio	915	934
Girl Child Mortality (birth to age 1 year)	117	n.a.
Girl Child Mortality (up to age 5 years)	195	n.a.
Total Fertility Rate	6.0	n.a.
Gender Ratio : All	898	908
Rural	901	910
Urban	884	900
General non SC/ ST Gender Ratio	894	n.a.
SC Gender Ratio	893	n.a.
ST Gender Ratio	932	n.a.
Workers Participation Rate - Female	32.4%	34.2%
	2000	
Female Enrolment Rate (Ages 6-14)	86.4%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1008
Percentage of villages not connected with pucca roads	71.4
	1991
Households without access to electricity, SDW and toilet facilities	22.47

Deprivation

Estimated Poverty Rate (1993-1994)	34.0%
Children as main workers (1991)	4.7%
Children as main and marginal workers (1991)	6.6%
Percentage of safe deliveries (1998-1999)	51.7
Percentage of children fully immunised (1998-1999)	39.7

Forests

	1999
Per Capita Forest Area (in hectares)	0.127
Annual Rate of Afforestation (%) (1993-1999)	-0.36
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	40.4%	63.8%
Male	56.9%	78.1%
Female	22.0%	48.0%
Rural	34.7%	60.6%
Urban	65.8%	77.8%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	89.5%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

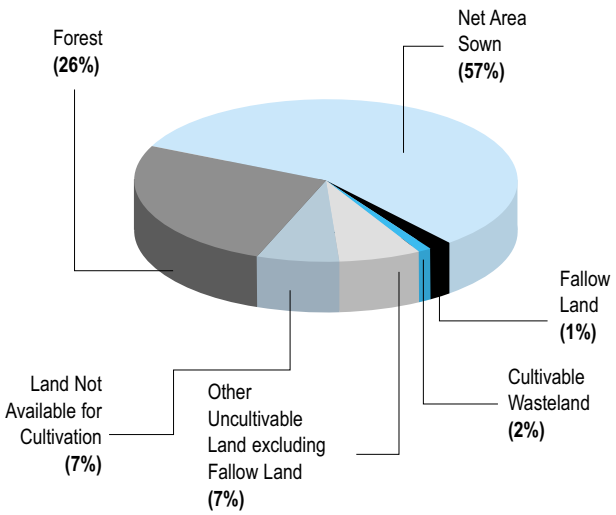
Employment

	1991	2001
Worker Participation Rate :		
All	42.0%	41.9%
Rural	44.9%	45.0%
Urban	29.0%	28.1%
Share of Primary Sector (%)	81.4%	n.a.
Share of Secondary Sector (%)	5.9%	n.a.
Share of Tertiary Sector (%)	12.64%	n.a.
Employment in Registered Industries (2000)		4259
Employment Rate of Growth (1991 to 2001)	n.a.	28.0%
Total Employment in Farm Sector (%)	81.4%	81.26
Rural Employment in Non Farm Sector (%)	9.6%	9.7%
Agriculture Labour (%)	30.7%	36.2%

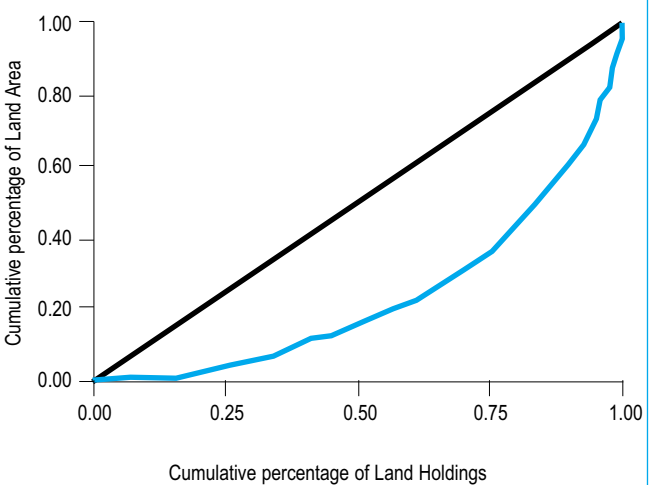
Infrastructure / Facilities

	2001
Middle Schools per lakh population	44.1
High Schools per lakh population	14.6
Rural Population per Primary Health Centre	52020
Population Serviced Sub Health Centre	5818
	2000
Road length per 100 sq. km. (1999)	13.7
Telephone per lakh population	1174
Population per Post Office (1994-95)	5599
Registered establishments under Factories Act (1997)	70
Per capita consumption of electricity (non industrial) in kwh	249.6

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	347.5	376.7
Gross Cropped Area (in 000' ha.)	368.0	578.0
Double Cropped Area to Net Area Sown	5.9	53.4
Net Irrigated Area (in 000' ha.)	28.4	171.5
Gross Irrigated Area (in 000' ha.)	29.8	171.5
	1992-93	**1998-99**
Agriculture Intensity	128.1	153.4

Credit

	2000
Credit-Deposit Ratio	73.62
Commercial Banks (per 1000 population)	0.05
Crop lending per hectare of cultivated land	794.8
Crop lending per hectare of irrigated land	2543.6

Habitat

	2001	
Number of towns reporting slums	7	
Urban population residing in slums	16.80%	
Level of ground water development	57.91	
Average annual rainfall (in mm)	1262.16	
	1995	**2000**
Percentage area under wasteland	20.8%	24.02%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	288.0	301.1
Pulses Per Capita (Kg)	102.6	63.3
Oilseeds Per Capita (Kg)	216.7	247.6
Average Landholding (Ha)	4.1	3.46
Gross Irrigated Area ('000 Ha)		171.5
Fertiliser Consumption Per Hectare (Kg)	33.8	56.57
	1993	**1999**
Cropping Intensity	128	153.4

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	52.9%	57.4%
Gross Cropped Area to Total Area	56.1%	88.1%
Net Irrigated to Net Sown Area	8.2%	45.5%
Cropped Area under Food Grains	70.2%	48.1%
Yield of Food Grains (in kg. per hectare)	812	1578
Per Capita Food Production (in kgs.)		427.1

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Sehore	355625	262510	93115	26.2%	64.4%	58.4%	80.1%	48.6%	906	923	32.85	39.28
Ashta	300063	252285	47778	15.9%	62.9%	60.6%	74.5%	45.3%	920	951	31.37	44.98
Ichhawar	132084	119396	12688	9.6%	55.8%	54.3%	70.0%	37.5%	912	932	38.25	45.33
Nasrullaganj	166624	149384	17240	10.3%	65.9%	64.4%	77.5%	52.4%	908	944	45.73	42.18
Budni	124373	100770	23603	19.0%	70.1%	67.8%	79.5%	57.5%	880	914	42.98	38.25

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Sehore	1516.15	71.9%	101.7%	0.55	141	36.65	25.94	92.329	Dark
Ichhawar	1024.15	46.7%	65.6%	0.51	141	29.06	20.79	47.182	White
Ashta	1343.54	72.6%	109.7%	0.5	151	33.92	22.45	92.037	Dark
Budni	896.32	53.2%	74.9%	0.58	141	49.42	35.68	15.035	White
Nasrullaganj	1064.16	65.1%	87.5%	0.62	134	36.87	27.49	25.922	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Sehore	18.94	3.14	13.59	72.22	3956
Ichhawar	20.88	17.34	9.37	20.44	4693
Ashta	31.7	2.02	16.08	11.87	4316
Budni	13.23	17.39	16.18	22.92	2745
Nasrullaganj	15.9	29.98	9.77	21.82	4123

SEONI

Basic Details on the District

Area (in sq. km)	8758
Total Inhabited Villages	1585
Total Habitations	2564
Forest Villages	36
Towns (Class I to IV) and Major Towns	4
Seoni	
Crop Zone :	
Wheat Rice Zone	
Soil type :	
Mixed Red and Black Soils (Medium)	
Agri Climatic Zone :	
Kymore Plateau and Satpura Hills	
Schedule V Areas :	
Lakhnadon, Ghansore and Kurai Tehsils/ Tribal Blocks	

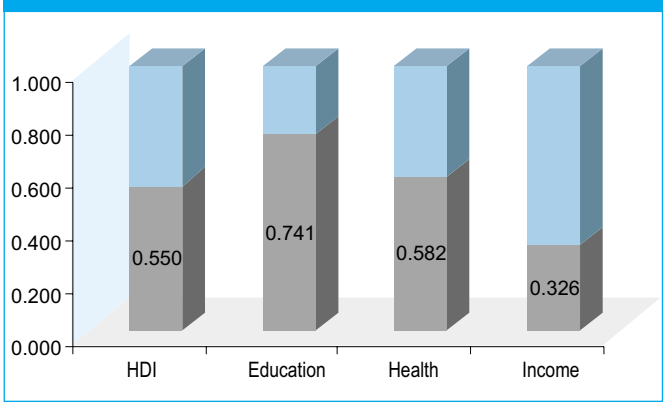
Demography

	1991	2001
Population	1000831	1165893
Share of Madhya Pradesh Population	2.06%	1.93%
Urban Population	9.5%	10.4%
Population of Scheduled Castes (SC)	10.8%	n.a.
Population of Scheduled Tribes (ST)	37.0%	n.a.
Density of Population (per sq. kms.)	114	133
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.60	16.49
Rural	n.a.	15.36
Urban	n.a.	27.31

Human Development Indices - 2002

Human Development Index (HDI)	0.550
Rank in Madhya Pradesh : HDI	26
Gender Related Development Index (GDI)	0.563
Rank in Madhya Pradesh : GDI	18

Graph on Human Development Index



Administrative Information

Janpad Panchayats	8
Gram Panchayats	598
Tehsils	6
Tribal Blocks	5
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	133	98
	1991	**2001**
Life Expectancy (years)	55.8	59.9
	1976-81	**1984-90**
Crude Birth Rate	33.3	35.7

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	272.67	236.29
	1996	**2000**
FPS per lakh population	32.57	32

Gender

	1991	2001
Life Expectancy of Females at Birth	55.6	60.2
Child Sex Ratio	972	979
Girl Child Mortality (birth to age 1 year)	118	n.a.
Girl Child Mortality (up to age 5 years)	148	n.a.
Total Fertility Rate	5.0	n.a.
Gender Ratio : All	974	982
Rural	980	988
Urban	920	935
General non SC/ ST Gender Ratio	957	n.a.
SC Gender Ratio	949	n.a.
ST Gender Ratio	1005	n.a.
Workers Participation Rate - Female	43.9%	43.5%
	2000	
Female Enrolment Rate (Ages 6-14)	89.3%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.2%
Number of villages electrified	1542
Percentage of villages not connected with pucca roads	75.0
	1991
Households without access to electricity, SDW and toilet facilities	30.94

Deprivation

Estimated Poverty Rate (1993-1994)	36.8%
Children as main workers (1991)	8.2%
Children as main and marginal workers (1991)	10.7%
Percentage of safe deliveries (1998-1999)	42.6
Percentage of children fully immunised (1998-1999)	69

Forests

	1999
Per Capita Forest Area (in hectares)	0.279
Annual Rate of Afforestation (%) (1993-1999)	0.91
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra	

Education

	1991	2001
Literacy (%) : All	44.5%	65.9%
Male	57.5%	77.5%
Female	31.1%	54.1%
Rural	40.8%	63.4%
Urban	78.7%	86.1%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	90.6%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

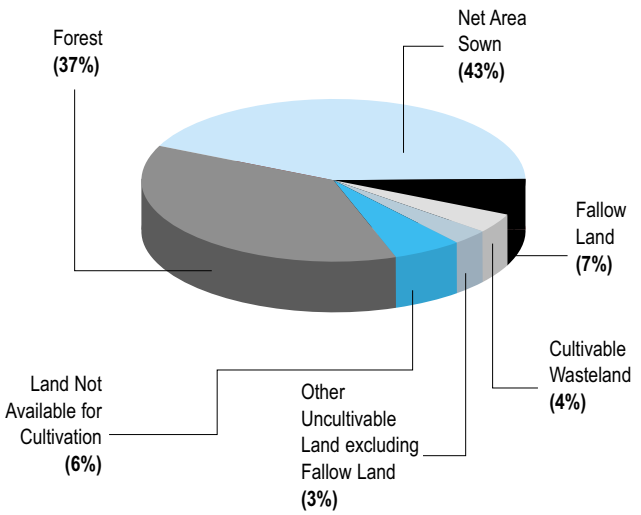
Employment

	1991	2001
Worker Participation Rate :		
All	49.2%	48.8%
Rural	51.4%	51.1%
Urban	27.9%	29.5%
Share of Primary Sector (%)	87.3%	n.a.
Share of Secondary Sector (%)	3.4%	n.a.
Share of Tertiary Sector (%)	9.27%	n.a.
Employment in Registered Industries (2000)		1804
Employment Rate of Growth (1991 to 2001)	n.a.	15.6%
Total Employment in Farm Sector (%)	87.3%	83.16
Rural Employment in Non Farm Sector (%)	8.3%	11.9%
Agriculture Labour (%)	33.8%	41.7%

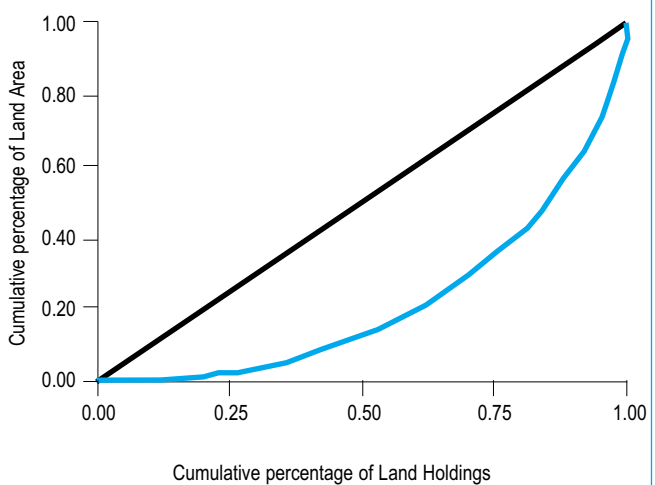
Infrastructure / Facilities

	2001
Middle Schools per lakh population	35.8
High Schools per lakh population	11.0
Rural Population per Primary Health Centre	36041
Population Serviced Sub Health Centre	3680
	2000
Road length per 100 sq. km. (1999)	20.8
Telephone per lakh population	675
Population per Post Office (1994-95)	5668
Registered establishments under Factories Act (1997)	99
Per capita consumption of electricity (non industrial) in kwh	85.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	369.7	371.7
Gross Cropped Area (in 000' ha.)	395.9	463.6
Double Cropped Area to Net Area Sown	7.1	24.7
Net Irrigated Area (in 000' ha.)	22.6	73.3
Gross Irrigated Area (in 000' ha.)	25.8	73.3
	1992-93	**1998-99**
Agriculture Intensity	114.3	124.7

Credit

	2000
Credit-Deposit Ratio	48.02
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	519.0
Crop lending per hectare of irrigated land	4219.0

Habitat

	2001	
Number of towns reporting slums	4	
Urban population residing in slums	23.45%	
Level of ground water development	15.03	
Average annual rainfall (in mm)	1170.00	
	1995	**2000**
Percentage area under wasteland	20.2%	18.45%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	228.8	200.9
Pulses Per Capita (Kg)	43.9	114.3
Oilseeds Per Capita (Kg)	70.5	48.3
Average Landholding (Ha)	3.0	2.65
Gross Irrigated Area ('000 Ha)		73.3
Fertiliser Consumption Per Hectare (Kg)	11.7	14.37
	1993	**1999**
Cropping Intensity	114	124.7

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	42.5%	42.5%
Gross Cropped Area to Total Area	45.5%	53.0%
Net Irrigated to Net Sown Area	6.1%	19.7%
Cropped Area under Food Grains	83.4%	71.3%
Yield of Food Grains (in kg. per hectare)	434	808
Per Capita Food Production (in kgs.)		236.3

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Lakhnadon	276343	262000	14343	5.2%	59.5%	58.2%	82.1%	45.9%	970	989	43.38	49.60
Seoni	296725	206926	89799	30.3%	70.7%	63.1%	87.3%	60.5%	953	940	33.11	43.07
Kurai	102973	102973	-	-	62.6%	62.6%	0.0%	49.4%	1006	988	43.15	53.60
Keolari	135088	135088	-	-	69.5%	69.5%	0.0%	58.8%	1000	1006	42.96	50.85
Barghat	169241	158816	10425	6.2%	70.5%	69.6%	83.7%	59.7%	1028	978	40.81	51.86
Ghansaur	185523	179393	6130	3.3%	62.2%	61.5%	82.9%	49.2%	984	1001	50.09	49.96

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Seoni	1290.22	70.2%	92.8%	0.5	132	23.43	17.72	23.249	White
Barghat	555.76	69.4%	93.1%	0.26	134	34.04	25.36	40.769	White
Kurai	646.94	42.4%	50.5%	0.32	119	15.64	13.13	10.888	White
Keolari	693.77	66.9%	83.8%	0.39	125	23.62	18.87	11.353	White
Lakhnadon	1087.21	59.5%	65.7%	0.48	110	7.17	6.49	8.023	White
Chhapara	658.92	56.1%	67.4%	0.49	120	16.17	13.47	9.153	White
Kahnapas (Ghansaur)	765.8	52.4%	58.7%	0.4	112	3.54	3.16	23.815	White
Dhanaura	500.19	64.6%	74.3%	0.56	115	27.87	16.84	7.035	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Seoni	16.09	26.04	21.16	97.56	3778
Barghat	7.09	23.54	37.48	65.94	4422
Kurai	8.22	47.96	12.68	24.46	2965
Keolari	11.2	28.92	36.03	102.73	3284
Lakhnadon	12.69	50.56	14.72	27.21	4604
Chhapara	10.41	50.79	32.02	17.86	5849
Kahnapas (Ghansaur)	7.36	59.32	12.27	16.81	4402
Dhanaura	9.73	57.04	10	23.68	4910

SHAHDOL

Basic Details on the District

Area (in sq. km)	9952
Total Inhabited Villages	1390
Total Habitations	5511
Forest Villages	0
Towns (Class I to IV) and Major Towns	16
Shahdol, Budhar Dhanpuri	
Crop Zone :	
Rice Zone	
Soil type :	
Red and Yellow, Medium Black and Skeletal Medium/ Light	
Agri Climatic Zone :	
Northern Hills	
Schedule V Areas :	
All Blocks of Pushprajgarh, Annuppur, Jaithhari, Kotma, Jaitpur, Sohapur and Jaisingh Nagar Tehsils	

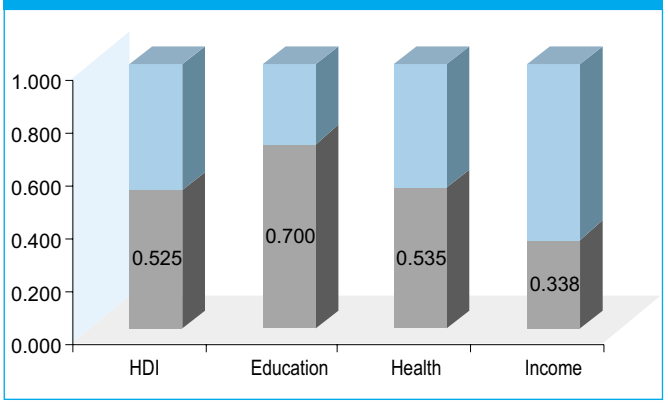
Demography

	1991	2001
Population	1323054	1572748
Share of Madhya Pradesh Population	2.72%	2.60%
Urban Population	22.5%	25.3%
Population of Scheduled Castes (SC)	7.5%	n.a.
Population of Scheduled Tribes (ST)	46.3%	n.a.
Density of Population (per sq. kms.)	133	158
Decadal Growth (%)	**1981-91**	**1991- 00**
All	28.96	18.87
Rural	n.a.	14.62
Urban	n.a.	33.49

Human Development Indices - 2002

Human Development Index (HDI)	0.525
Rank in Madhya Pradesh : HDI	31
Gender Related Development Index (GDI)	0.535
Rank in Madhya Pradesh : GDI	27

Graph on Human Development Index



Administrative Information

Janpad Panchayats	9
Gram Panchayats	670
Tehsils	8
Tribal Blocks	9
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	155	110
	1991	**2001**
Life Expectancy (years)	53.3	57.1
	1976-81	**1984-90**
Crude Birth Rate	32.8	39.3

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	179.26	151.78
	1996	**2000**
FPS per lakh population	42.59	46

Gender

	1991	2001
Life Expectancy of Females at Birth	54.2	57.1
Child Sex Ratio	986	970
Girl Child Mortality (birth to age 1 year)	111	n.a.
Girl Child Mortality (up to age 5 years)	154	n.a.
Total Fertility Rate	5.3	n.a.
Gender Ratio : All	940	958
Rural	964	979
Urban	862	897
General non SC/ ST Gender Ratio	903	n.a.
SC Gender Ratio	936	n.a.
ST Gender Ratio	979	n.a.
Workers Participation Rate - Female	32.0%	34.1%
	2000	
Female Enrolment Rate (Ages 6-14)	93.5%	

Basic Amenities

	2000
Habitations with SDW facility	98.8%
Habitations without 40 lpd water availability	1.2%
Number of villages electrified	1299
Percentage of villages not connected with pucca roads	65.1
	1991
Households without access to electricity, SDW and toilet facilities	52.73

Deprivation

Estimated Poverty Rate (1993-1994)	33.4%
Children as main workers (1991)	5.6%
Children as main and marginal workers (1991)	7.9%
Percentage of safe deliveries (1998-1999)	39.7
Percentage of children fully immunised (1998-1999)	24.8

Forests

	1999
Per Capita Forest Area (in hectares)	0.276
Annual Rate of Afforestation (%) (1993-1999)	-0.73
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra	

Education

	1991	2001
Literacy (%) : All	35.5%	57.8%
Male	48.9%	69.6%
Female	20.9%	45.4%
Rural	27.0%	50.7%
Urban	64.2%	77.4%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	94.6%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

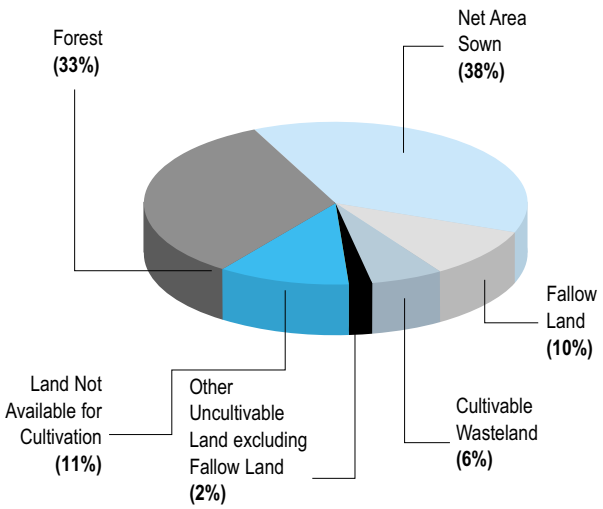
Employment

	1991	2001
Worker Participation Rate :		
All	43.3%	43.7%
Rural	47.7%	49.0%
Urban	28.3%	28.3%
Share of Primary Sector (%)	84.4%	n.a.
Share of Secondary Sector (%)	5.0%	n.a.
Share of Tertiary Sector (%)	10.61%	n.a.
Employment in Registered Industries (2000)		6775
Employment Rate of Growth (1991 to 2001)	n.a.	19.9%
Total Employment in Farm Sector (%)	78.1%	73.6
Rural Employment in Non Farm Sector (%)	10.7%	13.9%
Agriculture Labour (%)	24.8%	34.5%

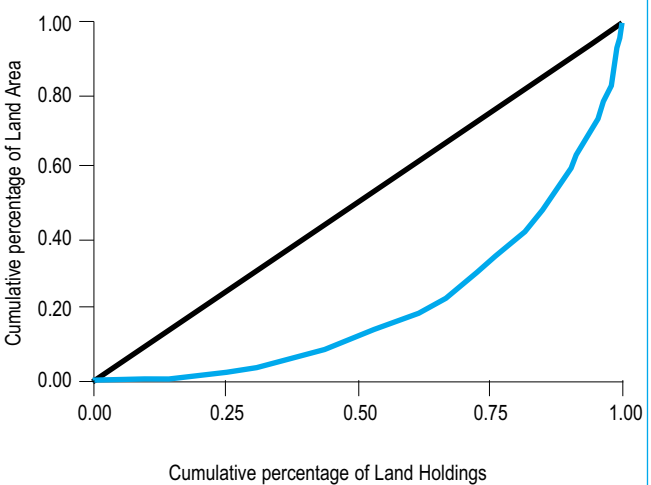
Infrastructure / Facilities

	2001
Middle Schools per lakh population	31.3
High Schools per lakh population	10.7
Rural Population per Primary Health Centre	24992
Population Serviced Sub Health Centre	2844
	2000
Road length per 100 sq. km. (1999)	24.8
Telephone per lakh population	739
Population per Post Office (1994-95)	6432
Registered establishments under Factories Act (1997)	144
Per capita consumption of electricity (non industrial) in kwh	161.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	473.1	360.0
Gross Cropped Area (in 000' ha.)	548.2	427.0
Double Cropped Area to Net Area Sown	15.9	18.6
Net Irrigated Area (in 000' ha.)	5.3	17.9
Gross Irrigated Area (in 000' ha.)	5.5	17.9
	1992-93	**1998-99**
Agriculture Intensity	113.4	118.6

Credit

	2000
Credit-Deposit Ratio	19.28
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	1151.2
Crop lending per hectare of irrigated land	21518.8

Habitat

	2001	
Number of towns reporting slums	16	
Urban population residing in slums	3.73%	
Level of ground water development	4.82	
Average annual rainfall (in mm)	1326.00	
	1995	**2000**
Percentage area under wasteland	10.9%	7.22%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	165.3	139.9
Pulses Per Capita (Kg)	14.0	26.3
Oilseeds Per Capita (Kg)	11.8	9.7
Average Landholding (Ha)	2.4	2.10
Gross Irrigated Area ('000 Ha)		17.9
Fertiliser Consumption Per Hectare (Kg)	6.8	9.01
	1993	**1999**
Cropping Intensity	113	118.6

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	34.1%	38.5%
Gross Cropped Area to Total Area	39.6%	45.6%
Net Irrigated to Net Sown Area	1.1%	5.0%
Cropped Area under Food Grains	85.8%	87.2%
Yield of Food Grains (in kg. per hectare)	126	620
Per Capita Food Production (in kgs.)		151.8

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Beohari	168459	137506	30953	18.4%	61.8%	58.9%	73.6%	46.9%	947	954	39.23	41.53
Sohagpur	473168	302633	170535	36.0%	57.9%	44.2%	80.7%	50.2%	943	907	33.48	41.53
Pushprajgarh	194632	187558	7074	3.6%	55.0%	54.1%	77.7%	41.0%	987	1075	26.29	56.74
Anuppur	276386	158752	117634	42.6%	64.5%	56.0%	75.5%	50.5%	944	979	30.88	34.26
Kotma	106160	49413	56747	53.5%	65.4%	53.1%	75.6%	51.4%	950	992	19.86	37.89
Jaithari	83949	76149	7800	9.3%	53.7%	51.5%	74.0%	38.8%	976	985	33.76	47.33
Jaitpur	108762	108762	-	-	47.5%	47.5%	0.0%	32.6%	987	1007	45.94	51.92
Jaishinghnagar	161232	153840	7392	4.6%	48.7%	47.8%	66.5%	34.5%	975	998	48.41	49.58

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Pushprajgarh	1764.14	48.1%	62.3%	0.5	130	1.76	1.35	0.850	White
Sohagpur	777.01	44.1%	50.3%	0.27	114	9.33	8.11	7.263	White
Anuppur	541.9	51.7%	55.3%	0.32	107	1.46	1.36	1.872	White
Kotma	362.64	49.8%	51.6%	0.44	104	2.32	2.24	0.845	White
Jaithari	883.88	50.8%	58.5%	0.35	115	3.68	3.19	16.223	White
Pali (Gohparu)	914.49	29.2%	32.3%	0.34	110	4.68	4.24	1.573	White
Burhar	1234.08	73.9%	82.8%	0.66	112	1.21	1.08	1.240	White
Beohari	1019.89	34.5%	44.0%	0.27	128	16.92	13.26	9.502	White
Jaisinghnagar	1508.5	24.1%	26.6%	0.28	110	6.13	5.56	5.414	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Pushprajgarh	2.74	78.32	8.05	85.39	4801
Sohagpur	5.38	54.74	14.41	68.59	5310
Anuppur	11.39	36.72	9.41	80	3514
Kotma	11.01	42.28	15.17	82.86	2949
Jaithari	7.37	49.19	10.63	18.66	4015
Pali (Gohparu)	6.93	64.16	6.44	83.5	3743
Burhar	8.45	58.66	7.45	71.2	4173
Beohari	7.87	43.01	21.86	25.79	4781
Jaisinghnagar	7.89	52.85	5.63	22.16	4591

SHAJAPUR

Basic Details on the District

Area (in sq. km)	6196
Total Inhabited Villages	1068
Total Habitations	1268
Forest Villages	0
Towns (Class I to IV) and Major Towns	12
Shajapur, Shujalpur	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
No Schedule V area	

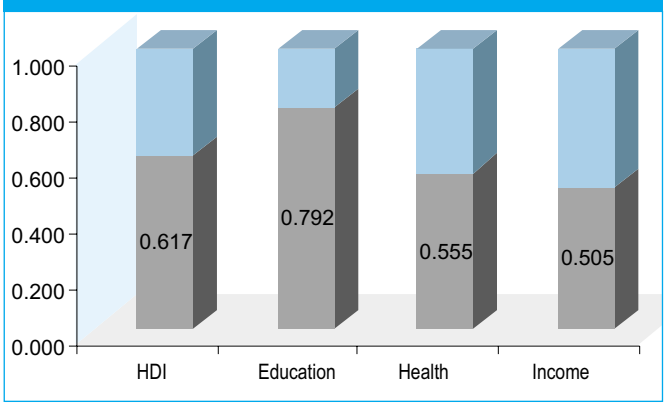
Demography

	1991	2001
Population	1033248	1290230
Share of Madhya Pradesh Population	2.13%	2.14%
Urban Population	17.7%	18.6%
Population of Scheduled Castes (SC)	22.3%	n.a.
Population of Scheduled Tribes (ST)	2.4%	n.a.
Density of Population (per sq. kms.)	167	208
Decadal Growth (%)	**1981-91**	**1991- 00**
All	22.97	24.87
Rural	n.a.	23.58
Urban	n.a.	30.87

Human Development Indices - 2002

Human Development Index (HDI)	0.617
Rank in Madhya Pradesh : HDI	9
Gender Related Development Index (GDI)	0.627
Rank in Madhya Pradesh : GDI	3

Graph on Human Development Index



Administrative Information

Janpad Panchayats	8
Gram Panchayats	509
Tehsils	8
Tribal Blocks	0
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	160	105
	1991	**2001**
Life Expectancy (years)	54.3	58.3
	1976-81	**1984-90**
Crude Birth Rate	34.0	36.6

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	391.87	404.81
	1996	**2000**
FPS per lakh population	26.82	29

Gender

	1991	2001
Life Expectancy of Females at Birth	55.0	59.6
Child Sex Ratio	928	936
Girl Child Mortality (birth to age 1 year)	118	n.a.
Girl Child Mortality (up to age 5 years)	184	n.a.
Total Fertility Rate	5.1	n.a.
Gender Ratio : All	918	927
Rural	920	929
Urban	910	921
General non SC/ ST Gender Ratio	921	n.a.
SC Gender Ratio	913	n.a.
ST Gender Ratio	889	n.a.
Workers Participation Rate - Female	34.7%	42.0%
	2000	
Female Enrolment Rate (Ages 6-14)	93.7%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1065
Percentage of villages not connected with pucca roads	74.2
	1991
Households without access to electricity, SDW and toilet facilities	19.78

Deprivation

Estimated Poverty Rate (1993-1994)	21.3%
Children as main workers (1991)	6.0%
Children as main and marginal workers (1991)	8.4%
Percentage of safe deliveries (1998-1999)	47.3
Percentage of children fully immunised (1998-1999)	63.2

Forests

	1999
Per Capita Forest Area (in hectares)	0.000
Annual Rate of Afforestation (%) (1993-1999)	0.00
Major Non-Timber Forest Produce :	
Tendu Leaves, Harra, Sal Seed	

Education

	1991	2001
Literacy (%) : All	39.2%	71.1%
Male	57.0%	83.7%
Female	19.8%	57.6%
Rural	33.7%	69.4%
Urban	64.4%	78.5%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	95.3%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

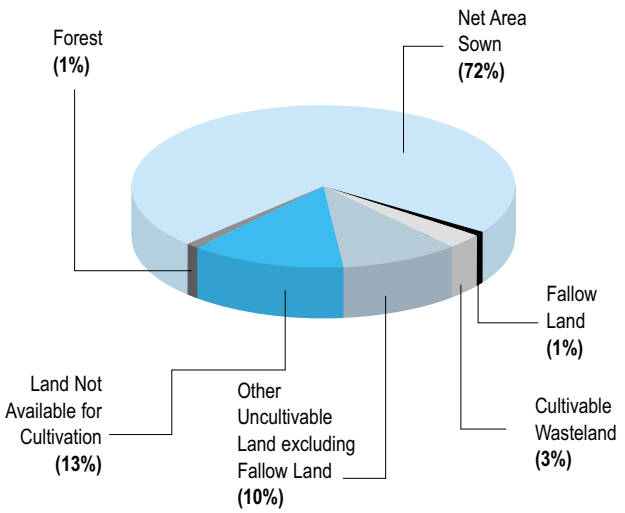
Employment

	1991	2001
Worker Participation Rate :		
All	44.7%	48.8%
Rural	47.6%	52.2%
Urban	31.0%	33.9%
Share of Primary Sector (%)	82.9%	n.a.
Share of Secondary Sector (%)	5.8%	n.a.
Share of Tertiary Sector (%)	11.31%	n.a.
Employment in Registered Industries (2000)		6550
Employment Rate of Growth (1991 to 2001)	n.a.	36.5%
Total Employment in Farm Sector (%)	82.8%	81.21
Rural Employment in Non Farm Sector (%)	9.6%	11.1%
Agriculture Labour (%)	30.8%	32.0%

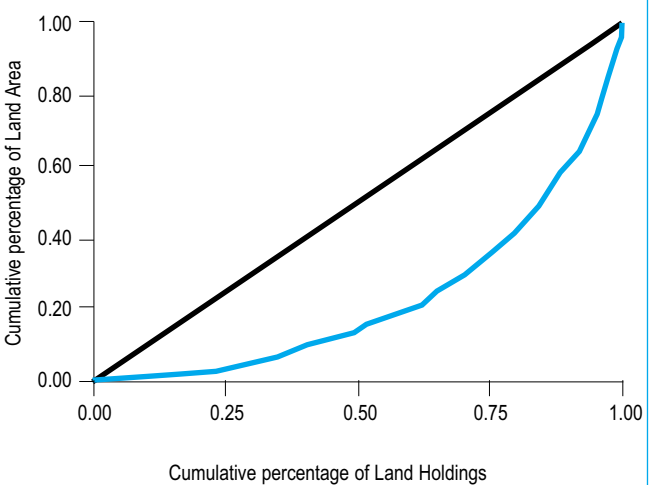
Infrastructure / Facilities

	2001
Middle Schools per lakh population	36.2
High Schools per lakh population	9.9
Rural Population per Primary Health Centre	50042
Population Serviced Sub Health Centre	6075
	2000
Road length per 100 sq. km. (1999)	23.3
Telephone per lakh population	958
Population per Post Office (1994-95)	6296
Registered establishments under Factories Act (1997)	214
Per capita consumption of electricity (non industrial) in kwh	694.1

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	411.2	442.3
Gross Cropped Area (in 000' ha.)	459.4	720.4
Double Cropped Area to Net Area Sown	11.7	62.9
Net Irrigated Area (in 000' ha.)	39.8	215.9
Gross Irrigated Area (in 000' ha.)	41.3	216.1
	1992-93	**1998-99**
Agriculture Intensity	129.5	162.9

Credit

	2000
Credit-Deposit Ratio	81.34
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	823.3
Crop lending per hectare of irrigated land	2908.1

Habitat

	2001	
Number of towns reporting slums	12	
Urban population residing in slums	0.00%	
Level of ground water development	101.39	
Average annual rainfall (in mm)	977.00	
	1995	**2000**
Percentage area under wasteland	64.2%	35.05%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	309.0	278.3
Pulses Per Capita (Kg)	82.8	14.7
Oilseeds Per Capita (Kg)	156.3	292.8
Average Landholding (Ha)	3.7	3.15
Gross Irrigated Area ('000 Ha)		216.1
Fertiliser Consumption Per Hectare (Kg)	43.8	47.55
	1993	**1999**
Cropping Intensity	130	162.9

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	66.6%	71.6%
Gross Cropped Area to Total Area	74.4%	116.6%
Net Irrigated to Net Sown Area	9.7%	48.8%
Cropped Area under Food Grains	62.4%	45.5%
Yield of Food Grains (in kg. per hectare)	657	1524
Per Capita Food Production (in kgs.)		404.8

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Susner	122715	95701	27014	22.0%	66.1%	62.2%	79.6%	51.2%	940	930	31.37	50.29
Agar	140585	100733	39852	28.3%	62.6%	56.2%	78.1%	46.8%	932	953	30.47	48.14
Shajapur	254293	178072	76221	30.0%	76.5%	74.2%	81.8%	64.8%	921	920	32.75	43.68
Shujalpur	204825	141103	63722	31.1%	80.5%	81.3%	78.9%	70.4%	917	925	27.73	48.16
Moman Barodia	179534	179534	-	-	71.1%	71.1%	0.0%	56.4%	929	945	39.99	50.98
Badod	114061	102297	11764	10.3%	54.6%	52.1%	76.9%	36.6%	940	941	27.80	51.84
Nalkheda	102554	81787	20767	20.2%	65.7%	65.6%	65.8%	50.9%	937	978	32.90	51.90
Kala Pipal	171663	171663	-	-	77.2%	77.2%	0.0%	64.8%	921	929	31.27	50.74

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Shajapur	882.63	65.7%	91.5%	0.39	139	36.33	26.27	67.284	Grey
Moman Barodia	904.06	76.5%	104.7%	0.48	137	30.53	22.46	129.496	Over Exploited
Agar	720.65	56.4%	79.2%	0.5	140	33.33	23.82	88.691	Dark
Badod	735.75	63.4%	83.8%	0.656	132	23.74	17.97	121.260	Over Exploited
Susner	642.9	64.3%	90.0%	0.52	140	36.18	26.38	110.620	Over Exploited
Nalkheda	561.61	72.4%	96.2%	0.6	133	30.58	23.23	93.892	Dark
Shujalpur	714.26	95.9%	139.8%	0.68	146	37.6	25.83	127.696	Over Exploited
Kala Pipal	887.72	75.2%	117.4%	0.45	156	47.01	30.13	90.285	Dark

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Shajapur	27.35	2	21.07	34.29	4333
Moman Barodia	26.38	5.74	1.44	37.97	3756
Agar	29.97	1.01	16.51	71.74	3694
Badod	24.52	0.05	15.49	21.58	6409
Susner	24.04	2.94	18.2	20.72	6159
Nalkheda	24.22	7.64	11.57	23.16	4259
Shujalpur	23.78	1.27	25.62	24.19	2796
Kala Pipal	18.43	1.33	18.81	19.83	4894

SHEOPUR

Basic Details on the District

Area (in sq. km)	6606
Total Inhabited Villages	533
Total Habitations	795
Forest Villages	9
Towns (Class I to IV) and Major Towns	3
Sheopur	
Crop Zone :	
Wheat Jowar	
Soil type :	
Alluvial (Light)	
Agri Climatic Zone :	
Gird Region	
Schedule V Areas :	
Karahal Tehsil/ Tribal Block	

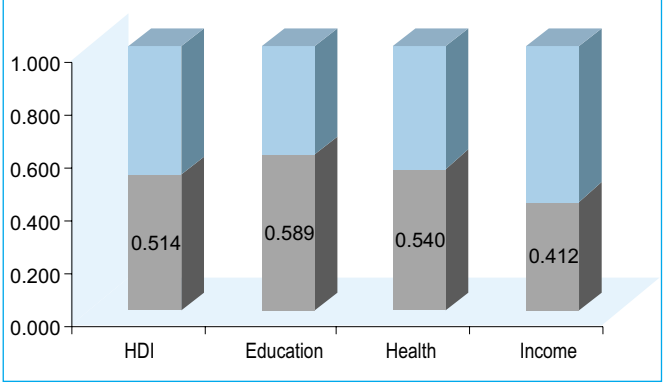
Demography

	1991	2001
Population	431480	559715
Share of Madhya Pradesh Population	0.89%	0.93%
Urban Population	14.4%	15.8%
Population of Scheduled Castes (SC)	16.6%	n.a.
Population of Scheduled Tribes (ST)	20.1%	n.a.
Density of Population (per sq. kms.)	65	85
Decadal Growth (%)	**1981-91**	**1991- 00**
All	33.32	29.72
Rural	n.a.	27.63
Urban	n.a.	42.08

Human Development Indices - 2002

Human Development Index (HDI)	0.514
Rank in Madhya Pradesh : HDI	33
Gender Related Development Index (GDI)	0.569
Rank in Madhya Pradesh : GDI	17

Graph on Human Development Index



Administrative Information

Janpad Panchayats	3
Gram Panchayats	219
Tehsils	3
Tribal Blocks	0
Legislative Assembly Seats	2

Health

	1981	1991
Infant Mortality Rate	n.a.	n.a.
	1991	**2001**
Life Expectancy (years)	55.3	57.4
	1976-81	**1984-90**
Crude Birth Rate	n.a.	n.a.

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	229.75	468.63
	1996	**2000**
FPS per lakh population	n.a.	25

Gender

	1991	2001
Life Expectancy of Females at Birth	53.0	54
Child Sex Ratio	941	931.2
Girl Child Mortality (birth to age 1 year)	n.a.	n.a.
Girl Child Mortality (up to age 5 years)	n.a.	n.a.
Total Fertility Rate	n.a.	n.a.
Gender Ratio : All	880	893
Rural	880	896
Urban	880	878
General non SC/ ST Gender Ratio	870	n.a.
SC Gender Ratio	858	n.a.
ST Gender Ratio	932	n.a.
Workers Participation Rate - Female	26.5%	31.6%
	2000	
Female Enrolment Rate (Ages 6-14)	77.5%	

Basic Amenities

	2000
Habitations with SDW facility	99.7%
Habitations without 40 lpd water availability	0.3%
Number of villages electrified	478
Percentage of villages not connected with pucca roads	43.9
	1991
Households without access to electricity, SDW and toilet facilities	n.a.

Deprivation

Estimated Poverty Rate (1993-1994)	n.a.
Children as main workers (1991)	n.a.
Children as main and marginal workers (1991)	n.a.
Percentage of safe deliveries (1998-1999)	n.a.
Percentage of children fully immunised (1998-1999)	n.a.

Forests

	1999
Per Capita Forest Area (in hectares)	n.a.
Annual Rate of Afforestation (%) (1993-1999)	n.a.
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	27.6%	46.6%
Male	40.7%	62.2%
Female	12.3%	29.0%
Rural	22.6%	42.9%
Urban	55.8%	66.0%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	83.5%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

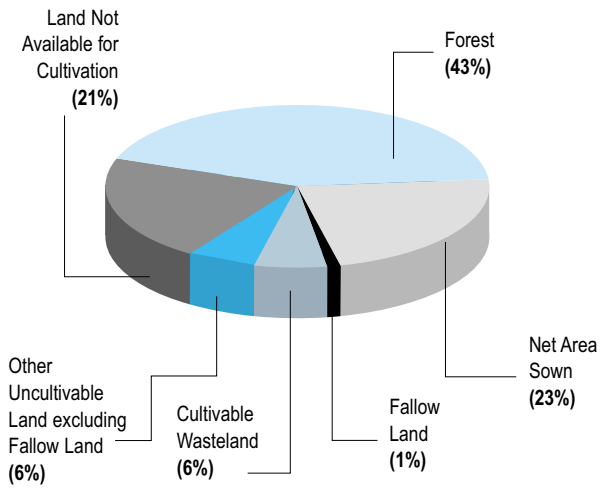
Employment

	1991	2001
Worker Participation Rate :		
All	39.7%	41.1%
Rural	41.9%	43.4%
Urban	27.3%	28.7%
Share of Primary Sector (%)	86.8%	n.a.
Share of Secondary Sector (%)	3.6%	n.a.
Share of Tertiary Sector (%)	9.54%	n.a.
Employment in Registered Industries (2000)		n.a.
Employment Rate of Growth (1991 to 2001)	n.a.	34.1%
Total Employment in Farm Sector (%)	86.8%	81.15
Rural Employment in Non Farm Sector (%)	6.0%	11.0%
Agriculture Labour (%)	14.5%	27.4%

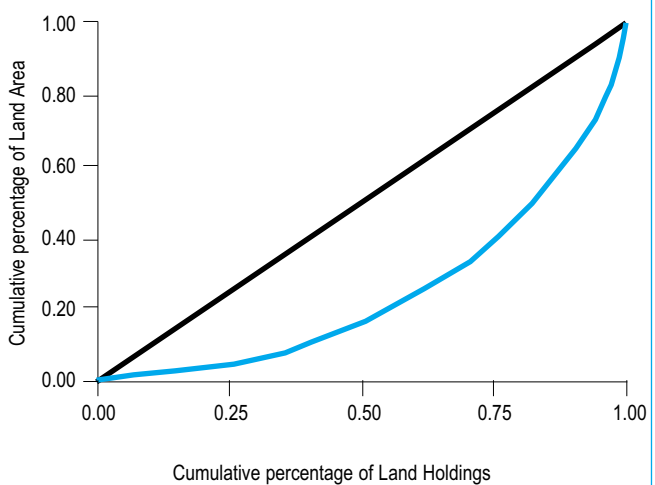
Infrastructure / Facilities

	2001
Middle Schools per lakh population	22.0
High Schools per lakh population	6.4
Rural Population per Primary Health Centre	58892
Population Serviced Sub Health Centre	5294
	2000
Road length per 100 sq. km. (1999)	10.3
Telephone per lakh population	535
Population per Post Office (1994-95)	n.a.
Registered establishments under Factories Act (1997)	n.a.
Per capita consumption of electricity (non industrial) in kwh	85.8

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	n.a.	151.9
Gross Cropped Area (in 000' ha.)	n.a.	205.2
Double Cropped Area to Net Area Sown	n.a.	35.2
Net Irrigated Area (in 000' ha.)	n.a.	98.4
Gross Irrigated Area (in 000' ha.)	n.a.	103.9
	1992-93	**1998-99**
Agriculture Intensity	n.a.	135.2

Credit

	2000
Credit-Deposit Ratio	77.62
Commercial Banks (per 1000 population)	0.02
Crop lending per hectare of cultivated land	n.a.
Crop lending per hectare of irrigated land	n.a.

Habitat

	2001	
Number of towns reporting slums	3	
Urban population residing in slums	0.00%	
Level of ground water development	3.77	
Average annual rainfall (in mm)	723.70	
	1995	**2000**
Percentage area under wasteland	n.a.	n.a.

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	n.a.	443.2
Pulses Per Capita (Kg)	n.a.	293.8
Oilseeds Per Capita (Kg)	n.a.	239.4
Average Landholding (Ha)	n.a.	n.a.
Gross Irrigated Area ('000 Ha)		103.9
Fertiliser Consumption Per Hectare (Kg)	n.a.	55.08
	1993	**1999**
Cropping Intensity	n.a.	135.2

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	Included in Morena	22.8%
Gross Cropped Area to Total Area	n.a.	30.8%
Net Irrigated to Net Sown Area	n.a.	64.8%
Cropped Area under Food Grains	n.a.	45.8%
Yield of Food Grains (in kg. per hectare)	n.a.	2652
Per Capita Food Production (in kgs.)		468.6

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Sheopurkala	285311	211286	74025	25.9%	49.6%	43.9%	65.5%	32.7%	913	921	28.38	38.17
Vijaypur	187494	172939	14555	7.8%	49.7%	48.1%	68.3%	29.5%	854	912	16.80	43.49
Karahal	86910	86910	-	-	29.3%	29.3%	0.0%	14.9%	918	998	46.76	45.53

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	% Net irrigated area to Net Sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Vijaypur	2736.08	16.0%	17.6%	0.33	110	36.47	33.35	16.640	White
Sheopurkalan	1426.01	65.2%	71.4%	0.56	110	75.71	71.84	4.540	White
Karahal	2303.7	10.8%	11.2%	0.36	104	23.83	23.81	0.110	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Vijaypur	18.39	18.41	6.03	31.11	4275
Sheopurkalan	20.43	11.71	20.76	10.71	5536
Karahal	6.61	58.2	8.81	14.29	5797

SHIVPURI

Basic Details on the District

Area (in sq. km)	10278
Total Inhabited Villages	1326
Total Habitations	2062
Forest Villages	15
Towns (Class I to IV) and Major Towns	7
Shivpuri	
Crop Zone :	
Wheat Jowar	
Soil type :	
Alluvial (Light) (except Picchore and Karera Tehsil), Mixed Red and Black (Medium) (Picchore and Karera Tehsil)	
Agri Climatic Zone :	
Gird Region (except Picchore and Karera Tehsil), Bundelkhand Region (Picchore and Karera Tehsil)	
Schedule V Areas :	
No Schedule V area	

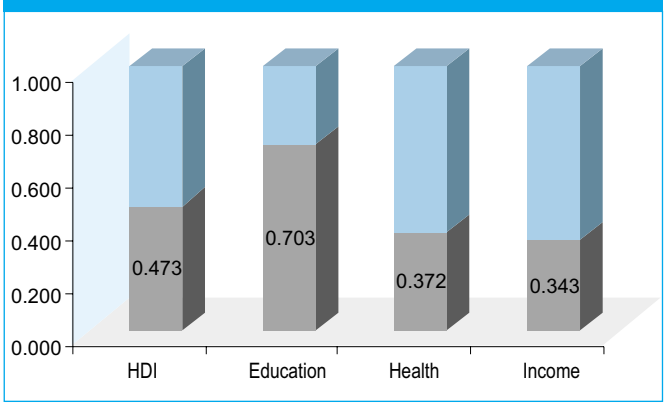
Demography

	1991	2001
Population	1132977	1440666
Share of Madhya Pradesh Population	2.33%	2.39%
Urban Population	15.2%	16.6%
Population of Scheduled Castes (SC)	19.4%	n.a.
Population of Scheduled Tribes (ST)	11.3%	n.a.
Density of Population (per sq. kms.)	110	140
Decadal Growth (%)	**1981-91**	**1991- 00**
All	30.84	27.16
Rural	n.a.	24.99
Urban	n.a.	39.29

Human Development Indices - 2002

Human Development Index (HDI)	0.473
Rank in Madhya Pradesh : HDI	40
Gender Related Development Index (GDI)	0.512
Rank in Madhya Pradesh : GDI	32

Graph on Human Development Index



Administrative Information

Janpad Panchayats	8
Gram Panchayats	605
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	178	164
	1991	**2001**
Life Expectancy (years)	46.1	47.3
	1976-81	**1984-90**
Crude Birth Rate	39.7	42.6

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	315.43	294.38
	1996	**2000**
FPS per lakh population	20.49	22

Gender

	1991	2001
Life Expectancy of Females at Birth	42.9	43.8
Child Sex Ratio	914	908
Girl Child Mortality (birth to age 1 year)	139	n.a.
Girl Child Mortality (up to age 5 years)	234	n.a.
Total Fertility Rate	6.3	n.a.
Gender Ratio : All	849	858
Rural	848	855
Urban	853	874
General non SC/ ST Gender Ratio	836	n.a.
SC Gender Ratio	840	n.a.
ST Gender Ratio	950	n.a.
Workers Participation Rate - Female	30.4%	37.3%
	2000	
Female Enrolment Rate (Ages 6-14)	88.8%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1300
Percentage of villages not connected with pucca roads	69.5
	1991
Households without access to electricity, SDW and toilet facilities	29.18

Deprivation

Estimated Poverty Rate (1993-1994)	16.1%
Children as main workers (1991)	5.6%
Children as main and marginal workers (1991)	8.0%
Percentage of safe deliveries (1998-1999)	39.3
Percentage of children fully immunised (1998-1999)	38.8

Forests

	1999
Per Capita Forest Area (in hectares)	0.176
Annual Rate of Afforestation (%) (1993-1999)	-0.62

Major Non-Timber Forest Produce :

Tendu Leaves, Aonla, Baheda, Satawar, Giloy, Bel, Arjun Bark, Katehri, Gudmar, Safed Musli, Malkangni, Gokhru, Nagarnotha, Adusa, Bhringraj, Palash Flower.

Education

	1991	2001
Literacy (%) : All	33.0%	59.5%
Male	47.5%	74.8%
Female	15.6%	41.5%
Rural	27.1%	56.1%
Urban	65.1%	75.8%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	91.5%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

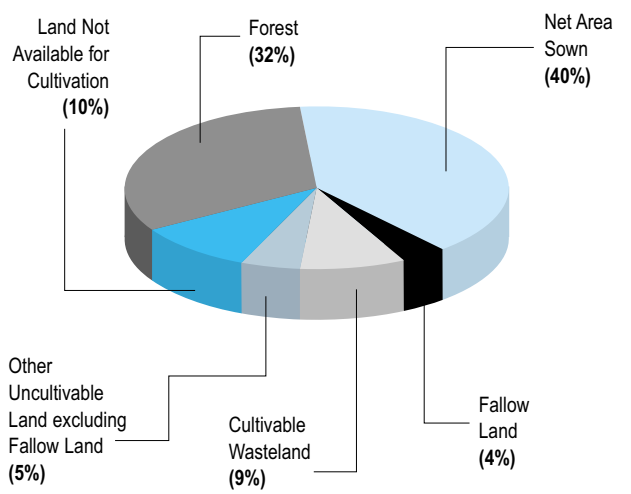
Employment

	1991	2001
Worker Participation Rate :		
All	42.5%	45.3%
Rural	45.0%	48.8%
Urban	28.1%	28.0%
Share of Primary Sector (%)	84.6%	n.a.
Share of Secondary Sector (%)	3.8%	n.a.
Share of Tertiary Sector (%)	11.65%	n.a.
Employment in Registered Industries (2000)		1787
Employment Rate of Growth (1991 to 2001)	n.a.	35.7%
Total Employment in Farm Sector (%)	83.5%	82.9
Rural Employment in Non Farm Sector (%)	8.3%	9.2%
Agriculture Labour (%)	12.3%	17.7%

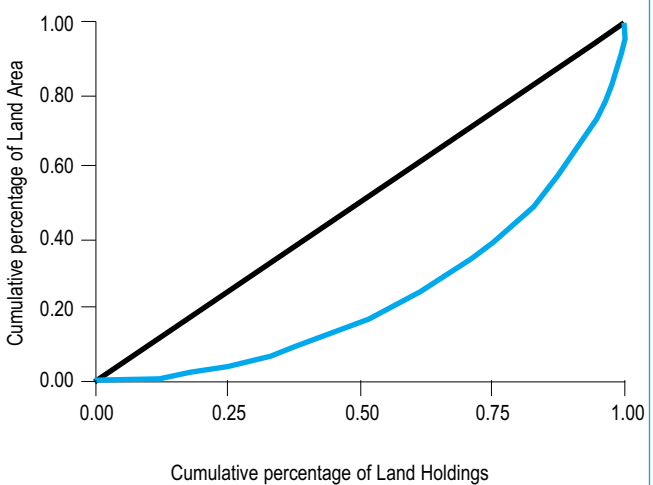
Infrastructure / Facilities

	2001
Middle Schools per lakh population	37.1
High Schools per lakh population	8.8
Rural Population per Primary Health Centre	92384
Population Serviced Sub Health Centre	6035
	2000
Road length per 100 sq. km. (1999)	13.7
Telephone per lakh population	943
Population per Post Office (1994-95)	5704
Registered establishments under Factories Act (1997)	48
Per capita consumption of electricity (non industrial) in kwh	326.0

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



Agriculture and Land Use over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	354.2	413.5
Gross Cropped Area (in 000' ha.)	397.7	532.3
Double Cropped Area to Net Area Sown	12.3	28.7
Net Irrigated Area (in 000' ha.)	70.4	166.8
Gross Irrigated Area (in 000' ha.)	71.1	169.6
	1992-93	**1998-99**
Agriculture Intensity	117.8	128.7

Credit

	2000
Credit-Deposit Ratio	45.99
Commercial Banks (per 1000 population)	0.02
Crop lending per hectare of cultivated land	543.4
Crop lending per hectare of irrigated land	1748.6

Habitat

	2001	
Number of towns reporting slums	7	
Urban population residing in slums	20.96%	
Level of ground water development	51.14	
Average annual rainfall (in mm)	871.00	
	1995	**2000**
Percentage area under wasteland	17.2%	20.64%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	272.6	202.7
Pulses Per Capita (Kg)	52.8	9.8
Oilseeds Per Capita (Kg)	61.4	102.0
Average Landholding (Ha)	3.0	2.63
Gross Irrigated Area ('000 Ha)		169.6
Fertiliser Consumption Per Hectare (Kg)	18.6	27.38
	1993	**1999**
Cropping Intensity	118	128.7

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	34.8%	40.6%
Gross Cropped Area to Total Area	39.1%	52.3%
Net Irrigated to Net Sown Area	19.9%	40.3%
Cropped Area under Food Grains	71.5%	57.3%
Yield of Food Grains (in kg. per hectare)	1031	1326
Per Capita Food Production (in kgs.)		294.4

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sex ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Pohri	168838	168838	-	-	54.8%	54.8%	0.0%	32.5%	856	918	17.62	49.34
Shivpuri	281123	134264	146859	52.2%	64.7%	50.0%	77.3%	49.2%	864	900	16.30	35.84
Karera	195814	172323	23491	12.0%	61.2%	59.0%	77.0%	44.3%	847	902	10.49	49.37
Kolaras	279292	253210	26082	9.3%	56.5%	54.9%	71.7%	37.5%	870	935	30.68	43.27
Pichhore	162506	147609	14897	9.2%	57.1%	55.2%	75.0%	39.3%	862	901	16.35	43.79
Narwar	163332	147584	15748	9.6%	68.6%	68.5%	70.1%	52.4%	828	875	12.98	50.77
Khaniyadhana	189761	177166	12595	6.6%	52.7%	51.3%	71.7%	33.7%	866	916	15.54	51.14

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	& Net irrigated area to net sown area	% Gross irrigated area to total cropped area	Level of GW Development	Status of ground water
Shivpuri	1687.99	29.9%	34.1%	0.46	114	30.8	27.22	30.140	White
Kolaras	981.66	50.8%	57.8%	0.57	114	19.62	7.92	61.175	White
Karera	848.74	55.5%	73.6%	0.35	133	57.36	43.26	68.768	Grey
Narwar	834.18	52.8%	64.1%	0.34	121	56.49	48.79	75.379	Grey
Pohri	1566.81	39.9%	43.8%	0.46	110	15.63	15.62	30.110	White
Pichhore	908.66	41.5%	58.6%	0.32	141	26.43	31.76	62.187	White
Kahniyadhana	922.1	55.6%	76.0%	0.36	137	45.87	33.62	62.159	White
Badarwas	875.63	75.6%	82.1%	0.64	109	18.19	16.81	39.174	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Shivpuri	20.11	19.1	9.18	38.30	3151
Kolaras	22.72	15.81	11.71	11.76	5130
Karera	22.27	5.39	10.01	20	4354
Narwar	22.4	2.69	11.39	14.6	4145
Pohri	19.86	15.84	6.45	30.77	4835
Pichhore	17.44	14.03	15.3	47.58	4229
Kahniyadhana	16.68	14.58	16.59	21.69	4898
Badarwas	18.15	17.72	11.08	27.61	4338

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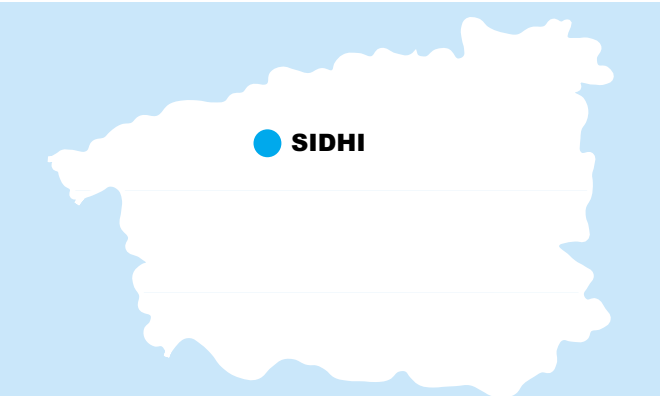


Basic Details on the District

Area (in sq. km)	10526
Total Inhabited Villages	1822
Total Habitations	5933
Forest Villages	12
Towns (Class I to IV) and Major Towns	6
Singrauli, Sidhi	
Crop Zone :	
Rice Zone	
Soil type :	
Red and Yellow, Medium Black and Skeletal Medium/ Light	
Agri Climatic Zone :	
Northern Hills	
Schedule V Areas :	
Kusmi Tehsil/ Tribal Blocks	

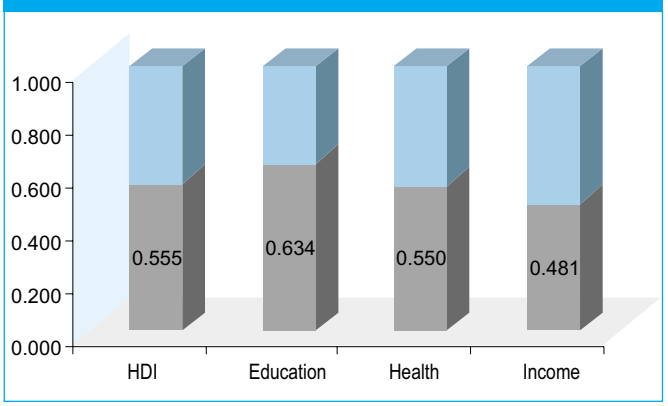
Demography

	1991	2001
Population	1373434	1830553
Share of Madhya Pradesh Population	2.83%	3.03%
Urban Population	6.5%	14.3%
Population of Scheduled Castes (SC)	11.4%	n.a.
Population of Scheduled Tribes (ST)	30.4%	n.a.
Density of Population (per sq. kms.)	130	174
Decadal Growth (%)	**1981-91**	**1991- 00**
All	38.67	33.28
Rural	n.a.	22.15
Urban	n.a.	194.2

Human Development Indices - 2002

Human Development Index (HDI)	0.555
Rank in Madhya Pradesh : HDI	25
Gender Related Development Index (GDI)	0.570
Rank in Madhya Pradesh : GDI	16

Graph on Human Development Index



Administrative Information

Janpad Panchayats	8
Gram Panchayats	716
Tehsils	9
Tribal Blocks	1
Legislative Assembly Seats	6

Health

	1981	1991
Infant Mortality Rate	147	105
	1991	**2001**
Life Expectancy (years)	54.2	58.0
	1976-81	**1984-90**
Crude Birth Rate	38.3	44.3

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	196.01	177.74
	1996	**2000**
FPS per lakh population	42.18	38

Gender

	1991	2001
Life Expectancy of Females at Birth	53.9	56.1
Child Sex Ratio	977	950
Girl Child Mortality (birth to age 1 year)	106	n.a.
Girl Child Mortality (up to age 5 years)	163	n.a.
Total Fertility Rate	6.7	n.a.
Gender Ratio : All	922	932
Rural	934	947
Urban	767	851
General non SC/ ST Gender Ratio	906	n.a.
SC Gender Ratio	940	n.a.
ST Gender Ratio	945	n.a.
Workers Participation Rate - Female	33.8%	34.2%
	2000	
Female Enrolment Rate (Ages 6-14)	79.8%	

Basic Amenities

	2000
Habitations with SDW facility	99.5%
Habitations without 40 lpd water availability	0.5%
Number of villages electrified	1804
Percentage of villages not connected with pucca roads	56.9
	1991
Households without access to electricity, SDW and toilet facilities	56.52

Deprivation

Estimated Poverty Rate (1993-1994)	36.4%
Children as main workers (1991)	5.6%
Children as main and marginal workers (1991)	8.5%
Percentage of safe deliveries (1998-1999)	10.4
Percentage of children fully immunised (1998-1999)	40.8

Forests

	1999
Per Capita Forest Area (in hectares)	0.233
Annual Rate of Afforestation (%) (1993-1999)	0.45
Major Non-Timber Forest Produce :	
Tendu Leaves, Aonla, Mahua Flower, Mahua Guthli, Achar Guthli, Imli	

Education

	1991	2001
Literacy (%) : All	29.2%	52.8%
Male	43.2%	68.0%
Female	13.6%	36.4%
Rural	26.5%	49.3%
Urban	66.4%	73.1%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	84.5%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

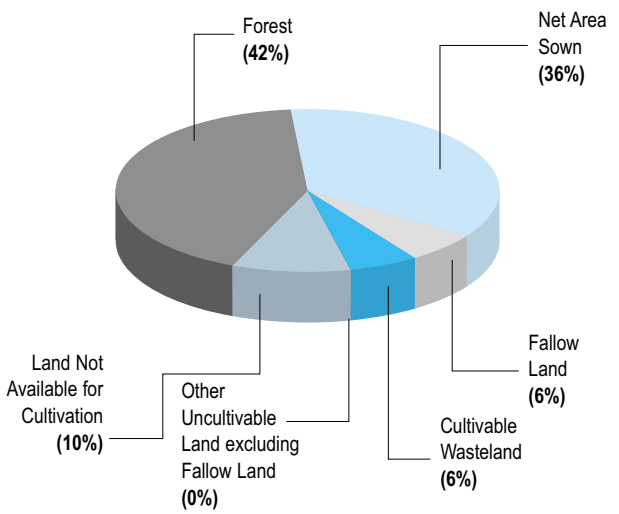
Employment

	1991	2001
Worker Participation Rate :		
All	43.0%	41.4%
Rural	43.8%	43.4%
Urban	31.1%	28.9%
Share of Primary Sector (%)	87.5%	n.a.
Share of Secondary Sector (%)	4.3%	n.a.
Share of Tertiary Sector (%)	8.19%	n.a.
Employment in Registered Industries (2000)		5072
Employment Rate of Growth (1991 to 2001)	n.a.	28.2%
Total Employment in Farm Sector (%)	85.3%	82.22
Rural Employment in Non Farm Sector (%)	10.8%	11.1%
Agriculture Labour (%)	24.1%	31.4%

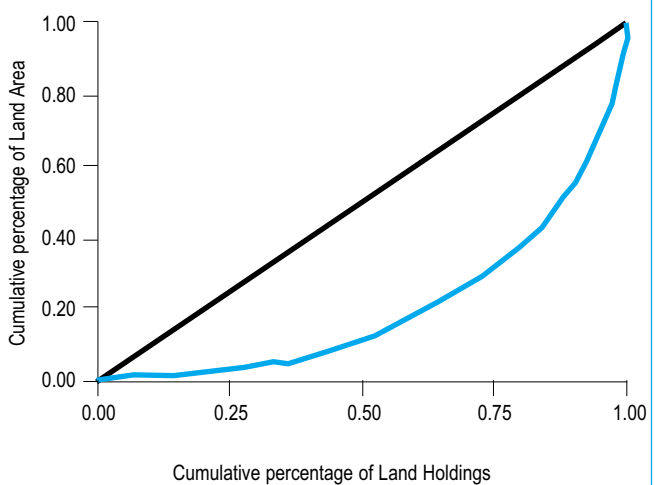
Infrastructure / Facilities

	2001
Middle Schools per lakh population	40.8
High Schools per lakh population	17.5
Rural Population per Primary Health Centre	37361
Population Serviced Sub Health Centre	5196
	2000
Road length per 100 sq. km. (1999)	32.1
Telephone per lakh population	385
Population per Post Office (1994-95)	7965
Registered establishments under Factories Act (1997)	48
Per capita consumption of electricity (non industrial) in kwh	46.4

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	344.1	377.1
Gross Cropped Area (in 000' ha.)	456.7	508.5
Double Cropped Area to Net Area Sown	32.7	34.9
Net Irrigated Area (in 000' ha.)	7.7	50.2
Gross Irrigated Area (in 000' ha.)	7.8	50.2
	1992-93	**1998-99**
Agriculture Intensity	125.2	134.9

Credit

	2000
Credit-Deposit Ratio	20.64
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	220.3
Crop lending per hectare of irrigated land	2263.6

Habitat

	2001	
Number of towns reporting slums	6	
Urban population residing in slums	1.20%	
Level of ground water development	8.71	
Average annual rainfall (in mm)	1248.00	
	1995	**2000**
Percentage area under wasteland	7.3%	13.00%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	159.0	150.6
Pulses Per Capita (Kg)	37.0	72.8
Oilseeds Per Capita (Kg)	9.4	6.9
Average Landholding (Ha)	4.1	2.02
Gross Irrigated Area ('000 Ha)		50.2
Fertiliser Consumption Per Hectare (Kg)	9.2	15.47
	1993	**1999**
Cropping Intensity	125	134.9

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	33.1%	36.3%
Gross Cropped Area to Total Area	43.9%	48.9%
Net Irrigated to Net Sown Area	2.2%	13.3%
Cropped Area under Food Grains	87.9%	88.8%
Yield of Food Grains (in kg. per hectare)	303	681
Per Capita Food Production (in kgs.)		177.7

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Gopadbanas	231518	185854	45664	19.7%	59.5%	53.8%	81.1%	45.3%	914	926	30.88	40.04
Deosar	243817	243817	-	-	43.1%	43.1%	0.0%	25.7%	951	984	30.92	46.24
Singrauli	418124	232544	185580	44.4%	57.0%	44.6%	71.6%	38.4%	906	942	17.39	37.70
Sinhawal	216361	216361	-	-	54.7%	54.7%	0.0%	38.7%	965	956	36.28	39.14
Kusmi	65086	65086	-	-	43.9%	43.9%	0.0%	29.3%	958	1008	38.02	47.03
Majholi	128836	128836	-	-	53.6%	53.6%	0.0%	38.5%	941	937	38.37	42.60
Rampur Naekin	166346	156445	9901	6.0%	56.3%	55.7%	65.7%	42.1%	945	953	44.11	41.66
Chitrangi	258409	251266	7143	2.8%	43.4%	42.2%	80.8%	26.0%	924	940	40.41	39.24
Churhat	102056	88954	13102	12.8%	61.1%	60.1%	67.5%	46.4%	945	942	31.75	44.41

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Sidhi	1011.64	65.0%	67.2%	0.35	103	5.82	19.67	4.321	White
Sihawal	744.47	54.3%	71.6%	0.24	132	10.67	8.09	14.374	White
Kusmi	1437.6	12.5%	14.2%	0.35	114	9.22	8.08	1.076	White
Majholi	734.6	53.3%	65.4%	0.38	123	10.62	8.65	9.362	White
Rampur Naekin	778.87	51.6%	65.9%	0.23	128	10.3	8.05	10.793	White
Deosar	1112.95	51.9%	62.0%	0.33	119	7.99	6.69	4.182	White
Chitrangi	1876.58	29.3%	45.2%	0.28	154	4.35	2.83	5.438	White
Baidhan	1040.67	56.9%	73.3%	0.25	129	9.08	7.04	15.449	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Sidhi	12.8	31.05	35.09	72.95	5217
Sihawal	10.31	19.07	12.09	71.92	4917
Kusmi	6.09	64.71	6.12	99.24	4262
Majholi	7.31	33.4	23.14	88.46	6008
Rampur Naekin	11.71	21.14	41.86	71.22	5561
Deosar	12.34	44.28	26.15	81.4	9706
Chitrangi	10.54	43.28	12.47	19.66	8428
Baidhan	14.53	23.14	17.39	36.16	7296

TIKAMGARH

Basic Details on the District

Area (in sq. km)	5048
Total Inhabited Villages	863
Total Habitations	1799
Forest Villages	8
Towns (Class I to IV) and Major Towns	12
Tikamgarh	
Crop Zone :	
Wheat Jowar	
Soil type :	
Mixed Red and Black (Medium)	
Agri Climatic Zone :	
Bundelkhand Region	
Schedule V Areas :	
No Schedule V area	

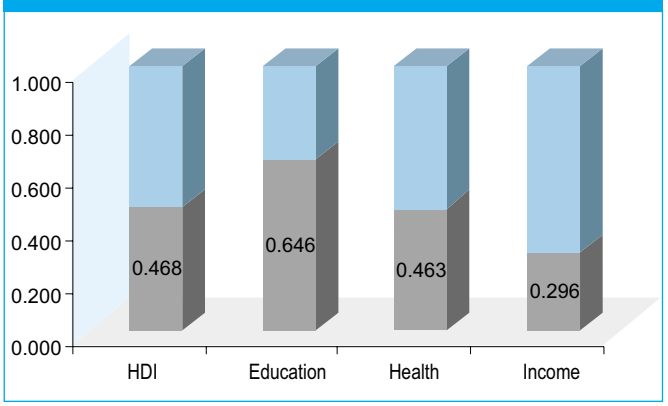
Demography

	1991	2001
Population	940829	1203160
Share of Madhya Pradesh Population	1.94%	1.99%
Urban Population	16.9%	17.7%
Population of Scheduled Castes (SC)	22.8%	n.a.
Population of Scheduled Tribes (ST)	4.1%	n.a.
Density of Population (per sq. kms.)	186	238
Decadal Growth (%)	**1981-91**	**1991- 00**
All	27.66	27.88
Rural	n.a.	26.73
Urban	n.a.	33.56

Human Development Indices - 2002

Human Development Index (HDI)	0.468
Rank in Madhya Pradesh : HDI	42
Gender Related Development Index (GDI)	0.486
Rank in Madhya Pradesh : GDI	38

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	443
Tehsils	6
Tribal Blocks	0
Legislative Assembly Seats	4

Health

	1981	1991
Infant Mortality Rate	182	132
	1991	**2001**
Life Expectancy (years)	48.7	52.8
	1976-81	**1984-90**
Crude Birth Rate	40.4	42.1

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	379.77	308.36
	1996	**2000**
FPS per lakh population	40.61	41

Gender

	1991	2001
Life Expectancy of Females at Birth	44.4	48.1
Child Sex Ratio	918	918
Girl Child Mortality (birth to age 1 year)	153	n.a.
Girl Child Mortality (up to age 5 years)	205	n.a.
Total Fertility Rate	6.1	n.a.
Gender Ratio : All	871	886
Rural	868	883
Urban	887	900
General non SC/ ST Gender Ratio	872	n.a.
SC Gender Ratio	856	n.a.
ST Gender Ratio	934	n.a.
Workers Participation Rate - Female	33.0%	41.2%
	2000	
Female Enrolment Rate (Ages 6-14)	78.2%	

Basic Amenities

	2000
Habitations with SDW facility	91.7%
Habitations without 40 lpd water availability	8.4%
Number of villages electrified	862
Percentage of villages not connected with pucca roads	59.1
	1991
Households without access to electricity, SDW and toilet facilities	56.20

Deprivation

Estimated Poverty Rate (1993-1994)	21.3%
Children as main workers (1991)	5.0%
Children as main and marginal workers (1991)	7.7%
Percentage of safe deliveries (1998-1999)	29.5
Percentage of children fully immunised (1998-1999)	17.3

Forests

	1999
Per Capita Forest Area (in hectares)	0.020
Annual Rate of Afforestation (%) (1993-1999)	-1.84
Major Non-Timber Forest Produce :	
Tendu Leaves, Ber, Mahua Flower, Mahua Guthli, Charota Seeds, Nagarmotha, Palash Gum	

Education

	1991	2001
Literacy (%) : All	24.8%	55.8%
Male	47.5%	68.8%
Female	20.0%	41.0%
Rural	30.6%	53.0%
Urban	55.4%	68.5%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	91.4%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

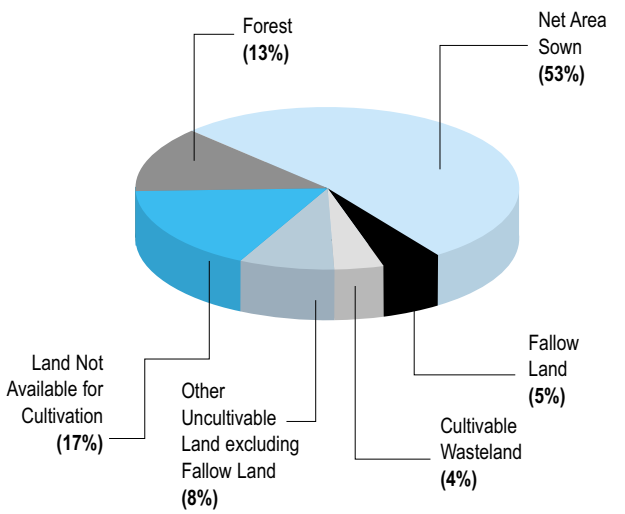
Employment

	1991	2001
Worker Participation Rate :		
All	42.8%	47.1%
Rural	45.2%	49.5%
Urban	30.9%	35.9%
Share of Primary Sector (%)	86.4%	n.a.
Share of Secondary Sector (%)	4.6%	n.a.
Share of Tertiary Sector (%)	8.99%	n.a.
Employment in Registered Industries (2000)		921
Employment Rate of Growth (1991 to 2001)	n.a.	40.7%
Total Employment in Farm Sector (%)	86.3%	81.53
Rural Employment in Non Farm Sector (%)	8.0%	12.1%
Agriculture Labour (%)	11.7%	16.8%

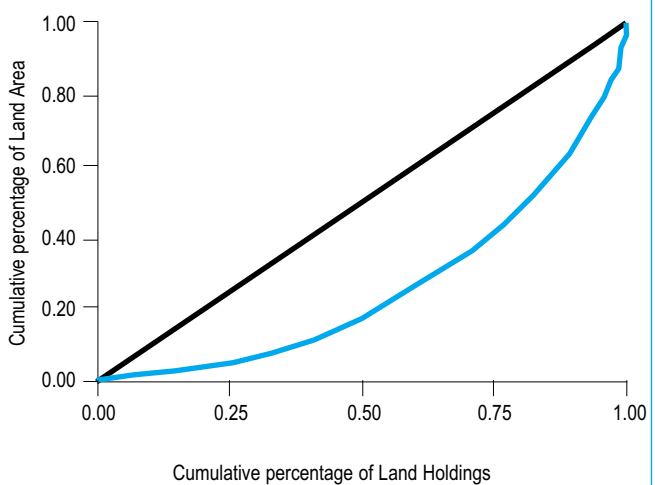
Infrastructure / Facilities

	2001
Middle Schools per lakh population	30.9
High Schools per lakh population	11.7
Rural Population per Primary Health Centre	55044
Population Serviced Sub Health Centre	6351
	2000
Road length per 100 sq. km. (1999)	28.3
Telephone per lakh population	401
Population per Post Office (1994-95)	5705
Registered establishments under Factories Act (1997)	32
Per capita consumption of electricity (non industrial) in kwh	132.6

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	224.1	263.5
Gross Cropped Area (in 000' ha.)	284.6	398.6
Double Cropped Area to Net Area Sown	27.0	51.3
Net Irrigated Area (in 000' ha.)	88.2	178.0
Gross Irrigated Area (in 000' ha.)	90.6	216.4
	1992-93	**1998-99**
Agriculture Intensity	140.9	151.3

Credit

	2000
Credit-Deposit Ratio	41.2
Commercial Banks (per 1000 population)	0.01
Crop lending per hectare of cultivated land	688.0
Crop lending per hectare of irrigated land	1603.9

Habitat

	2001	
Number of towns reporting slums	12	
Urban population residing in slums	14.12%	
Level of ground water development	63.18	
Average annual rainfall (in mm)	1101.00	
	1995	**2000**
Percentage area under wasteland	27.7%	41.64%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	334.0	253.0
Pulses Per Capita (Kg)	45.8	40.9
Oilseeds Per Capita (Kg)	36.2	104.5
Average Landholding (Ha)	1.9	1.69
Gross Irrigated Area ('000 Ha)		216.4
Fertiliser Consumption Per Hectare (Kg)	39.4	56.21
	1993	**1999**
Cropping Intensity	141	151.3

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	44.5%	52.3%
Gross Cropped Area to Total Area	56.5%	79.1%
Net Irrigated to Net Sown Area	39.4%	67.5%
Cropped Area under Food Grains	79.8%	62.3%
Yield of Food Grains (in kg. per hectare)	1196	1421
Per Capita Food Production (in kgs.)		308.4

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Niwari	184662	149012	35650	19.3%	62.4%	61.6%	65.4%	46.3%	883	890	19.01	46.27
Jatara	239960	213699	26261	10.9%	51.4%	49.7%	65.3%	36.3%	884	925	18.42	48.62
Tikamgarh	249357	164375	84982	34.1%	61.4%	52.9%	76.7%	48.3%	897	934	17.48	41.61
Baldeogarh	193189	173192	19997	10.4%	47.8%	46.1%	62.3%	33.2%	884	926	17.36	49.57
Prithvipur	159527	128688	30839	19.3%	55.4%	54.7%	58.3%	40.0%	887	921	11.41	49.49
Palera	176465	161819	14646	8.3%	55.9%	55.2%	63.7%	40.5%	880	903	16.20	48.67

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Tikamgarh	809.33	59.9%	76.7%	0.4	128	43.89	49.61	58.513	White
Baldeogarh	821.84	55.4%	84.8%	0.33	153	56.09	43.29	63.350	White
Niwari	581.28	83.4%	106.8%	0.38	128	43.89	40.5	66.350	Grey
Prithvipur	512.81	90.3%	120.0%	0.45	133	45.57	42.98	72.973	Grey
Jatara	910.44	79.5%	103.4%	0.44	130	38.24	35.84	59.341	White
Palera	754.76	82.8%	103.9%	0.49	125	39.51	33.12	63.245	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Tikamgarh	22.62	4.85	31.75	33.13	3382
Baldeogarh	19.65	4.87	27.13	34.44	3681
Niwari	26.03	3.64	23.4	26.52	3326
Prithvipur	20.65	5.64	25.74	22.05	4473
Jatara	23.41	4.58	30.42	27.27	5197
Palera	27.97	4.14	20.14	31.34	3858

U J J A I N

Basic Details on the District

Area (in sq. km)	6091
Total Inhabited Villages	1092
Total Habitations	1166
Forest Villages	0
Towns (Class I to IV) and Major Towns	7
Ujjain, Nagda	
Crop Zone :	
Cotton Jowar	
Soil type :	
Medium Black (Medium)	
Agri Climatic Zone :	
Malwa Plateau	
Schedule V Areas :	
No Schedule V area	

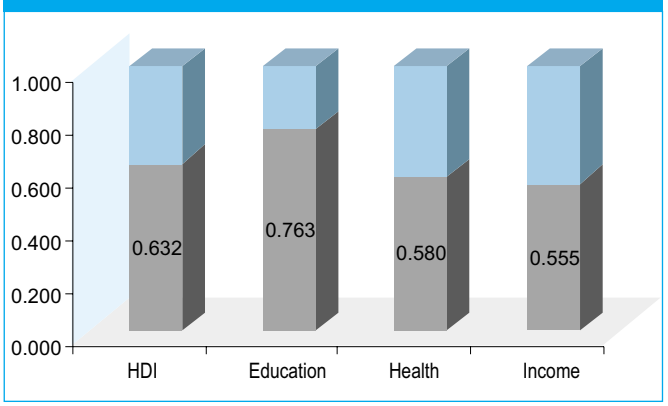
Demography

	1991	2001
Population	1383086	1709885
Share of Madhya Pradesh Population	2.85%	2.83%
Urban Population	39.5%	38.7%
Population of Scheduled Castes (SC)	24.6%	n.a.
Population of Scheduled Tribes (ST)	2.1%	n.a.
Density of Population (per sq. kms.)	227	281
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.82	23.63
Rural	n.a.	25.25
Urban	n.a.	21.15

Human Development Indices - 2002

Human Development Index (HDI)	0.632
Rank in Madhya Pradesh : HDI	4
Gender Related Development Index (GDI)	0.615
Rank in Madhya Pradesh : GDI	6

Graph on Human Development Index



Administrative Information

Janpad Panchayats	6
Gram Panchayats	517
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	7

Health

	1981	1991
Infant Mortality Rate	121	99
	1991	**2001**
Life Expectancy (years)	56.9	59.8
	1976-81	**1984-90**
Crude Birth Rate	34.8	32.1

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	380.38	363.79
	1996	**2000**
FPS per lakh population	34.02	31

Gender

	1991	2001
Life Expectancy of Females at Birth	55.2	57.2
Child Sex Ratio	946	933
Girl Child Mortality (birth to age 1 year)	74	n.a.
Girl Child Mortality (up to age 5 years)	156	n.a.
Total Fertility Rate	4.2	n.a.
Gender Ratio : All	929	940
Rural	936	949
Urban	918	926
General non SC/ ST Gender Ratio	929	n.a.
SC Gender Ratio	930	n.a.
ST Gender Ratio	915	n.a.
Workers Participation Rate - Female	26.2%	33.7%
	2000	
Female Enrolment Rate (Ages 6-14)	81.6%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1092
Percentage of villages not connected with pucca roads	76.2
	1991
Households without access to electricity, SDW and toilet facilities	9.00

Deprivation

Estimated Poverty Rate (1993-1994)	20.1%
Children as main workers (1991)	5.0%
Children as main and marginal workers (1991)	6.6%
Percentage of safe deliveries (1998-1999)	68.2
Percentage of children fully immunised (1998-1999)	57.6

Forests

	1999
Per Capita Forest Area (in hectares)	0.000
Annual Rate of Afforestation (%) (1993-1999)	0.00
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	49.1%	71.2%
Male	64.3%	83.7%
Female	32.6%	57.9%
Rural	33.5%	64.3%
Urban	72.1%	81.5%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	87.1%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

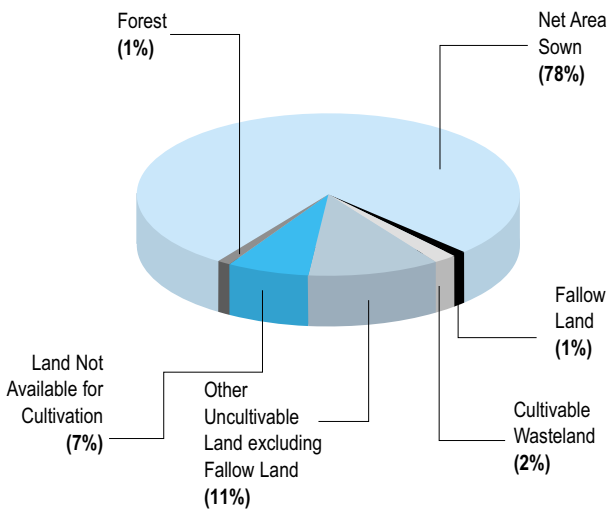
Employment

	1991	2001
Worker Participation Rate :		
All	39.8%	44.1%
Rural	46.9%	52.4%
Urban	28.9%	31.0%
Share of Primary Sector (%)	65.9%	n.a.
Share of Secondary Sector (%)	13.6%	n.a.
Share of Tertiary Sector (%)	20.47%	n.a.
Employment in Registered Industries (2000)		33961
Employment Rate of Growth (1991 to 2001)	n.a.	37.0%
Total Employment in Farm Sector (%)	65.8%	67.77
Rural Employment in Non Farm Sector (%)	9.8%	10.3%
Agriculture Labour (%)	23.8%	25.3%

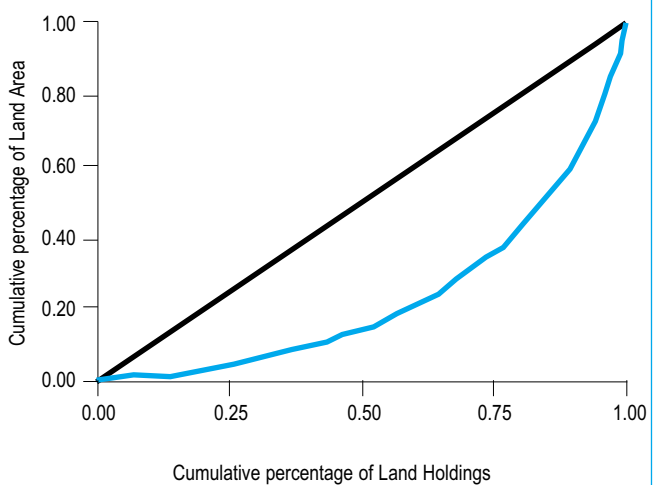
Infrastructure / Facilities

	2001
Middle Schools per lakh population	37.7
High Schools per lakh population	10.3
Rural Population per Primary Health Centre	49884
Population Serviced Sub Health Centre	6162
	2000
Road length per 100 sq. km. (1999)	18.3
Telephone per lakh population	2235
Population per Post Office (1994-95)	7570
Registered establishments under Factories Act (1997)	428
Per capita consumption of electricity (non industrial) in kwh	818.3

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	456.1	480.2
Gross Cropped Area (in 000' ha.)	513.3	819.6
Double Cropped Area to Net Area Sown	12.5	70.7
Net Irrigated Area (in 000' ha.)	44.2	261.3
Gross Irrigated Area (in 000' ha.)	45.2	261.5
	1992-93	**1998-99**
Agriculture Intensity	143.5	170.7

Credit

	2000
Credit-Deposit Ratio	57.03
Commercial Banks (per 1000 population)	0.06
Crop lending per hectare of cultivated land	900.4
Crop lending per hectare of irrigated land	2906.3

Habitat

	2001	
Number of towns reporting slums	7	
Urban population residing in slums	21.90%	
Level of ground water development	98.48	
Average annual rainfall (in mm)	935.00	
	1995	**2000**
Percentage area under wasteland	19.0%	18.05%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	296.7	305.9
Pulses Per Capita (Kg)	83.7	38.7
Oilseeds Per Capita (Kg)	207.0	350.4
Average Landholding (Ha)	4.3	3.62
Gross Irrigated Area ('000 Ha)		261.5
Fertiliser Consumption Per Hectare (Kg)	54.2	53.56
	1993	**1999**
Cropping Intensity	143	170.7

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	74.6%	78.7%
Gross Cropped Area to Total Area	83.9%	134.4%
Net Irrigated to Net Sown Area	9.7%	54.4%
Cropped Area under Food Grains	76.6%	40.0%
Yield of Food Grains (in kg. per hectare)	648	1817
Per Capita Food Production (in kgs.)		363.8

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio		Agriculture labourers in workers (%)	Worker participation ratio
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child		
Khachrod	141421	111524	29897	21.1%	62.4%	58.6%	76.1%	44.9%	962	926	25.80	51.21
Mahidpur	217246	181483	35763	16.5%	50.8%	46.0%	75.0%	32.0%	940	954	26.32	52.47
Tarana	217181	195726	21455	9.9%	71.7%	71.0%	78.4%	56.8%	946	945	38.56	48.54
Badnagar	236642	202579	34063	14.4%	86.1%	86.1%	86.2%	79.0%	948	947	33.02	47.74
Ujjain	563636	132967	430669	76.4%	78.0%	61.7%	82.9%	67.8%	927	911	13.61	34.76
Ghatiya	118459	118459	-	-	58.8%	58.8%	0.0%	39.9%	942	937	32.07	53.52
Nagda	215300	104820	110480	51.3%	68.5%	56.9%	79.0%	53.1%	941	935	19.04	41.85

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Ujjain	671.28	84.8%	125.6%	0.53	148	45.49	30.84	143.260	Over Exploited
Ghatiya	612.55	81.8%	116.6%	0.55	143	39.29	27.57	103.468	Over Exploited
Badnagar	1225.3	83.6%	128.4%	0.64	154	42.63	27.83	174.852	Over Exploited
Khachrod	1233.11	78.6%	120.6%	0.57	153	33.32	21.75	71.701	Grey
Mahidpur	1133.57	77.5%	106.4%	0.59	137	28.09	20.48	54.824	White
Tarana	1040.03	77.7%	106.7%	0.51	137	29.39	21.39	79.679	Grey

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Ujjain	33.3	0.73	29.05	76.47	3567
Ghatiya	30.94	0.94	13.71	50	5677
Badnagar	22.77	6.61	14.53	76.34	4307
Khachrod	32.49	3.07	5.68	21.36	5147
Mahidpur	29.49	0.93	10.59	22.62	4834
Tarana	33.63	1.86	9.71	70.39	4984

U M A R I A

Basic Details on the District

Area (in sq. km)	4076
Total Inhabited Villages	646
Total Habitations	1823
Forest Villages	2
Towns (Class I to IV) and Major Towns	4
none	
Crop Zone :	
Rice Zone	
Soil type :	
Red and Yellow, Medium Black and Skeletal Medium/ Light	
Agri Climatic Zone :	
Northern Hills	
Schedule V Areas :	
Pali 2 Tribal Block of Pali Tehsil	

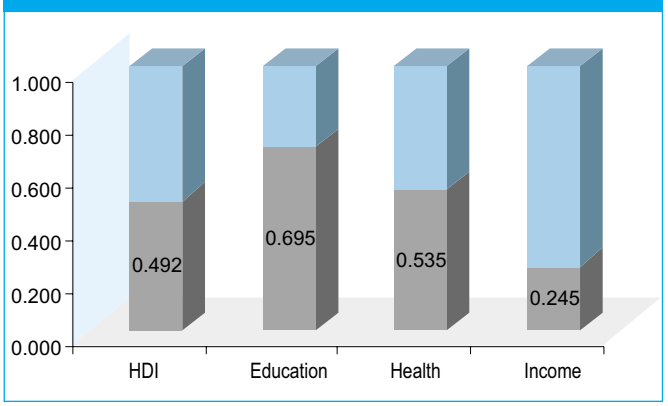
Demography

	1991	2001
Population	420815	515851
Share of Madhya Pradesh Population	0.87%	0.85%
Urban Population	16.6%	16.1%
Population of Scheduled Castes (SC)	8.2%	n.a.
Population of Scheduled Tribes (ST)	46.3%	n.a.
Density of Population (per sq. kms.)	103	127
Decadal Growth (%)	**1981-91**	**1991- 00**
All	31.83	22.58
Rural	n.a.	23.39
Urban	n.a.	18.55

Human Development Indices - 2002

Human Development Index (HDI)	0.492
Rank in Madhya Pradesh : HDI	37
Gender Related Development Index (GDI)	0.508
Rank in Madhya Pradesh : GDI	35

Graph on Human Development Index



Administrative Information

Janpad Panchayats	2
Gram Panchayats	223
Tehsils	2
Tribal Blocks	0
Legislative Assembly Seats	2

Health

	1981	1991
Infant Mortality Rate	n.a.	n.a.
	1991	**2001**
Life Expectancy (years)	53.3	57.1
	1976-81	**1984-90**
Crude Birth Rate	n.a.	n.a.

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	179.26	158.50
	1996	**2000**
FPS per lakh population	n.a.	39

Gender

	1991	2001
Life Expectancy of Females at Birth	54.2	57.6
Child Sex Ratio	968	960
Girl Child Mortality (birth to age 1 year)	n.a.	n.a.
Girl Child Mortality (up to age 5 years)	n.a.	n.a.
Total Fertility Rate	n.a.	n.a.
Gender Ratio : All	942	947
Rural	951	953
Urban	895	915
General non SC/ ST Gender Ratio	915	n.a.
SC Gender Ratio	936	n.a.
ST Gender Ratio	970	n.a.
Workers Participation Rate - Female	34.4%	33.3%
	2000	
Female Enrolment Rate (Ages 6-14)	86.1%	

Basic Amenities

	2000
Habitations with SDW facility	97.5%
Habitations without 40 lpd water availability	2.6%
Number of villages electrified	554
Percentage of villages not connected with pucca roads	65.1
	1991
Households without access to electricity, SDW and toilet facilities	n.a.

Deprivation

Estimated Poverty Rate (1993-1994)	n.a.
Children as main workers (1991)	n.a.
Children as main and marginal workers (1991)	n.a.
Percentage of safe deliveries (1998-1999)	n.a.
Percentage of children fully immunised (1998-1999)	n.a.

Forests

	1999
Per Capita Forest Area (in hectares)	n.a.
Annual Rate of Afforestation (%) (1993-1999)	n.a.
Major Non-Timber Forest Produce :	
Tendu Leaves	

Education

	1991	2001
Literacy (%) : All	32.6%	60.3%
Male	46.9%	74.1%
Female	17.4%	45.6%
Rural	27.9%	57.8%
Urban	55.9%	72.6%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	88.1%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

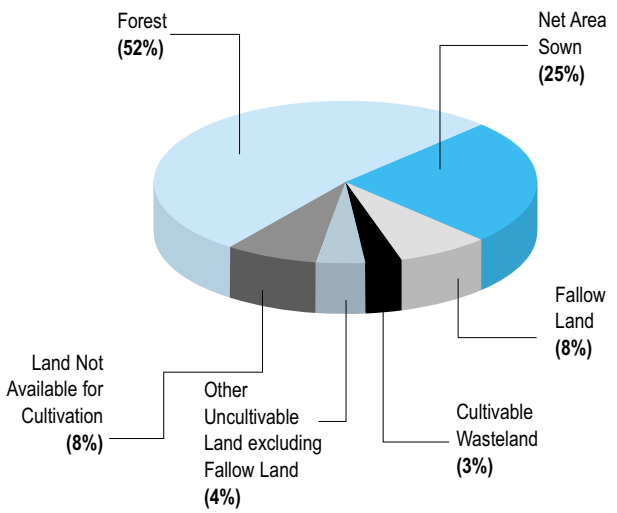
Employment

	1991	2001
Worker Participation Rate :		
All	43.9%	42.3%
Rural	46.7%	44.6%
Urban	30.2%	30.2%
Share of Primary Sector (%)	86.9%	n.a.
Share of Secondary Sector (%)	4.8%	n.a.
Share of Tertiary Sector (%)	8.33%	n.a.
Employment in Registered Industries (2000)		n.a.
Employment Rate of Growth (1991 to 2001)	n.a.	18.1%
Total Employment in Farm Sector (%)	82.9%	76.87
Rural Employment in Non Farm Sector (%)	9.8%	16.5%
Agriculture Labour (%)	27.0%	37.0%

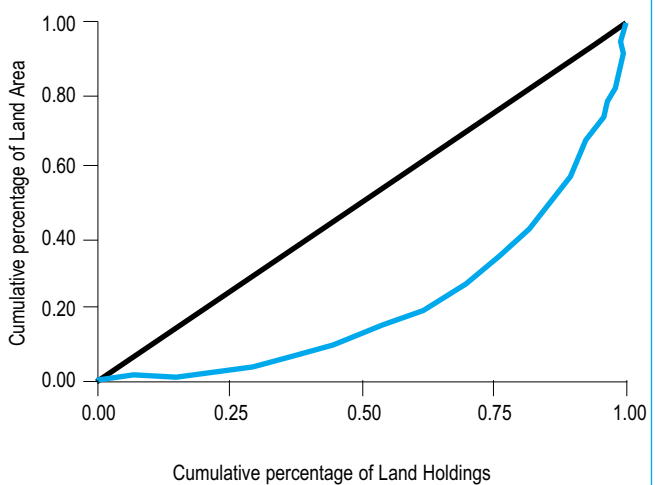
Infrastructure / Facilities

	2001
Middle Schools per lakh population	32.1
High Schools per lakh population	14.2
Rural Population per Primary Health Centre	39358
Population Serviced Sub Health Centre	4976
	2000
Road length per 100 sq. km. (1999)	19.5
Telephone per lakh population	443
Population per Post Office (1994-95)	n.a.
Registered establishments under Factories Act (1997)	n.a.
Per capita consumption of electricity (non industrial) in kwh	18.4

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	n.a.	110.9
Gross Cropped Area (in 000' ha.)	n.a.	142.0
Double Cropped Area to Net Area Sown	n.a.	28.0
Net Irrigated Area (in 000' ha.)	n.a.	16.3
Gross Irrigated Area (in 000' ha.)	n.a.	16.3
	1992-93	**1998-99**
Agriculture Intensity	n.a.	128.0

Credit

	2000
Credit-Deposit Ratio	19.75
Commercial Banks (per 1000 population)	0.03
Crop lending per hectare of cultivated land	n.a.
Crop lending per hectare of irrigated land	n.a.

Habitat

	2001	
Number of towns reporting slums	4	
Urban population residing in slums	0.00%	
Level of ground water development	6.96	
Average annual rainfall (in mm)	1326.00	
	1995	**2000**
Percentage area under wasteland	n.a.	n.a.

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	n.a.	141.1
Pulses Per Capita (Kg)	n.a.	191.4
Oilseeds Per Capita (Kg)	n.a.	9.1
Average Landholding (Ha)	n.a.	n.a.
Gross Irrigated Area ('000 Ha)		16.3
Fertiliser Consumption Per Hectare (Kg)	n.a.	16.66
	1993	**1999**
Cropping Intensity	n.a.	128.0

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	Included in Shahdol	24.6%
Gross Cropped Area to Total Area	n.a.	31.5%
Net Irrigated to Net Sown Area	n.a.	14.7%
Cropped Area under Food Grains	n.a.	87.5%
Yield of Food Grains (in kg. per hectare)	n.a.	632
Per Capita Food Production (in kgs.)		158.5

NA = not available

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil*	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Bandhavgarh	515851	432939	82912	16.1%	60.3%	57.8%	72.6%	45.6%	947	960	36.99	42.31

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Umaria	1601.14	34.2%	42.9%	0.36	125	11.34	9.04	7.487	White
Manpur	1837.75	20.2%	25.2%	0.26	124	18.08	14.55	9.319	White
Pali	853.38	16.7%	19.8%	0.26	118	6.65	5.65	1.862	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Umaria	6.48	54.84	7.18	47.46	5462
Manpur	9.96	38.56	11.15	10.19	4623
Pali	4.08	72.55	6.44	83.5	5395

*Data for Tehsil Pali not available separately as it was formed on 16.4.01

VIDISHA

Basic Details on the District

Area (in sq. km)	7371
Total Inhabited Villages	1522
Total Habitations	1962
Forest Villages	1
Towns (Class I to IV) and Major Towns	5
Vidisha, Basoda, Sironj	
Crop Zone :	
Wheat Zone	
Soil type :	
Medium Black and Deep Black (Medium/ Heavy)	
Agri Climatic Zone :	
Vindhya Plateau	
Schedule V Areas :	
No Schedule V area	

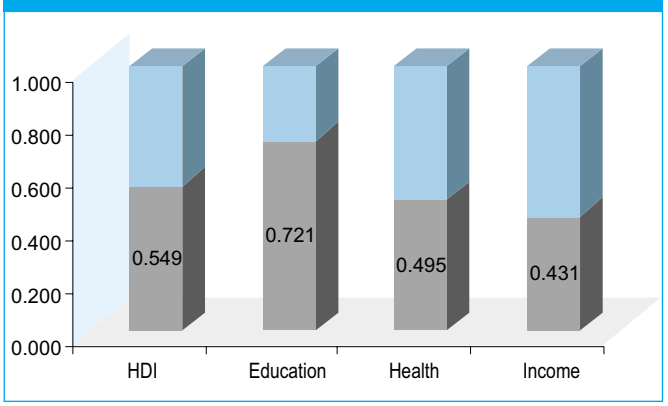
Demography

	1991	2001
Population	970388	1214759
Share of Madhya Pradesh Population	2.00%	2.01%
Urban Population	20.1%	21.4%
Population of Scheduled Castes (SC)	20.3%	n.a.
Population of Scheduled Tribes (ST)	4.4%	n.a.
Density of Population (per sq. kms.)	132	165
Decadal Growth (%)	**1981-91**	**1991- 00**
All	23.92	25.18
Rural	n.a.	23.11
Urban	n.a.	33.42

Human Development Indices - 2002

Human Development Index (HDI)	0.549
Rank in Madhya Pradesh : HDI	27
Gender Related Development Index (GDI)	0.482
Rank in Madhya Pradesh : GDI	39

Graph on Human Development Index



Administrative Information

Janpad Panchayats	7
Gram Panchayats	549
Tehsils	7
Tribal Blocks	0
Legislative Assembly Seats	5

Health

	1981	1991
Infant Mortality Rate	158	124
	1991	**2001**
Life Expectancy (years)	50.4	54.7
	1976-81	**1984-90**
Crude Birth Rate	42.8	40.1

Food

	1991	1998-99
Per Capita Food Production (in kgs.)	409.63	531.94
	1996	**2000**
FPS per lakh population	32.60	31

Gender

	1991	2001
Life Expectancy of Females at Birth	49.0	53.4
Child Sex Ratio	939	942
Girl Child Mortality (birth to age 1 year)	102	n.a.
Girl Child Mortality (up to age 5 years)	198	n.a.
Total Fertility Rate	5.6	n.a.
Gender Ratio : All	874	876
Rural	872	873
Urban	881	887
General non SC/ ST Gender Ratio	874	n.a.
SC Gender Ratio	865	n.a.
ST Gender Ratio	916	n.a.
Workers Participation Rate - Female	20.8%	21.0%
	2000	
Female Enrolment Rate (Ages 6-14)	90.3%	

Basic Amenities

	2000
Habitations with SDW facility	100.0%
Habitations without 40 lpd water availability	0.0%
Number of villages electrified	1478
Percentage of villages not connected with pucca roads	71.0
	1991
Households without access to electricity, SDW and toilet facilities	38.91

Deprivation

Estimated Poverty Rate (1993-1994)	34.3%
Children as main workers (1991)	3.9%
Children as main and marginal workers (1991)	5.5%
Percentage of safe deliveries (1998-1999)	27.8
Percentage of children fully immunised (1998-1999)	44

Forests

	1999
Per Capita Forest Area (in hectares)	0.067
Annual Rate of Afforestation (%) (1993-1999)	-3.33
Major Non-Timber Forest Produce :	
Tendu Leaves, Baheda, Aonla, Charota Seeds, Safed Musli, Chironji	

Education

	1991	2001
Literacy (%) : All	44.1%	62.1%
Male	58.0%	74.7%
Female	27.8%	47.4%
Rural	37.2%	57.5%
Urban	70.2%	78.1%
Access to Education	**2000**	
Enrolment Rate (Ages 6-14)	92.0%	
Gross access ratio at primary level	100.0%	
Habitations with Primary Schools	100.0%	

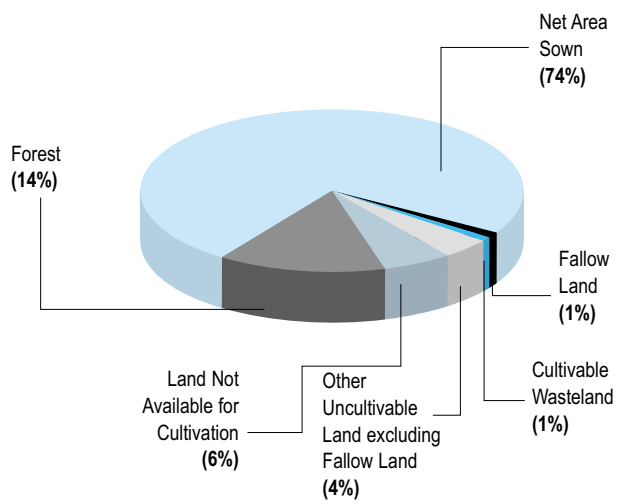
Employment

	1991	2001
Worker Participation Rate :		
All	37.5%	37.1%
Rural	40.0%	39.4%
Urban	27.7%	28.6%
Share of Primary Sector (%)	79.3%	n.a.
Share of Secondary Sector (%)	6.2%	n.a.
Share of Tertiary Sector (%)	14.58%	n.a.
Employment in Registered Industries (2000)		2754
Employment Rate of Growth (1991 to 2001)	n.a.	23.9%
Total Employment in Farm Sector (%)	78.0%	74.7
Rural Employment in Non Farm Sector (%)	10.3%	12.9%
Agriculture Labour (%)	33.3%	37.1%

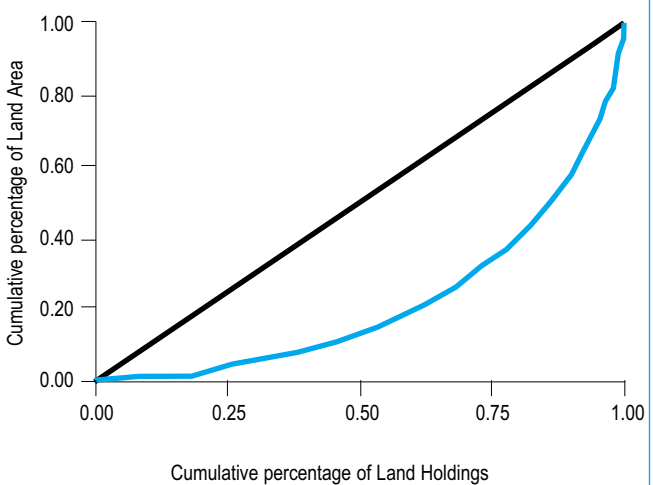
Infrastructure / Facilities

	2001
Middle Schools per lakh population	40.7
High Schools per lakh population	11.5
Rural Population per Primary Health Centre	47724
Population Serviced Sub Health Centre	6628
	2000
Road length per 100 sq. km. (1999)	14.3
Telephone per lakh population	1047
Population per Post Office (1994-95)	6596
Registered establishments under Factories Act (1997)	74
Per capita consumption of electricity (non industrial) in kwh	69.1

Land Use Classification in 1998-99



Lorenz Curve of Operational Holdings



agriculture and Land Use Over 30 Years

	1978	1998
Net Area Sown (in 000' ha.)	502.0	530.6
Gross Cropped Area (in 000' ha.)	514.0	637.7
Double Cropped Area to Net Area Sown	2.4	20.2
Net Irrigated Area (in 000' ha.)	9.7	143.9
Gross Irrigated Area (in 000' ha.)	9.7	143.9
	1992-93	**1998-99**
Agriculture Intensity	110.9	120.2

Credit

	2000
Credit-Deposit Ratio	80.94
Commercial Banks (per 1000 population)	0.04
Crop lending per hectare of cultivated land	1158.2
Crop lending per hectare of irrigated land	7402.0

Habitat

	2001	
Number of towns reporting slums	5	
Urban population residing in slums	13.73%	
Level of ground water development	18.87	
Average annual rainfall (in mm)	1133.80	
	1995	**2000**
Percentage area under wasteland	13.1%	15.37%

Land Use and Agriculture

	1991	1998-99
Cereals Per Capita (Kg)	264.0	316.9
Pulses Per Capita (Kg)	145.6	7.4
Oilseeds Per Capita (Kg)	60.1	82.8
Average Landholding (Ha)	5.0	4.40
Gross Irrigated Area ('000 Ha)		143.9
Fertiliser Consumption Per Hectare (Kg)	29.9	43.93
	1993	**1999**
Cropping Intensity	111	120.2

NA = not available

Land Use and Agriculture

	1978	1998
Net Sown Area to Total Geographical Area	68.7%	72.7%
Gross Cropped Area to Total Area	70.4%	87.3%
Net Irrigated to Net Sown Area	1.9%	27.1%
Cropped Area under Food Grains	87.0%	77.5%
Yield of Food Grains (in kg. per hectare)	385	1250
Per Capita Food Production (in kgs.)		531.9

Population					Literacy				Select Gender Indicators		Employment	
									Sexr ratio			
Name of Tehsil	Total	Rural	Urban	Urbanisation	Total	Rural	Urban	Female	All	Child	Agriculture labourers in workers (%)	Worker participation ratio
Lateri	112145	98078	14067	12.5%	47.1%	45.1%	60.8%	30.5%	861	930	42.63	35.18
Sironj	193286	151186	42100	21.8%	53.3%	49.7%	65.9%	38.1%	873	940	35.47	36.13
Kurwai	136891	123154	13737	10.0%	66.6%	65.7%	74.6%	51.7%	879	949	41.07	37.60
Basoda	242091	177173	64918	26.8%	62.5%	55.3%	81.3%	48.3%	878	941	34.03	44.21
Vidisha	268191	142734	125457	46.8%	75.2%	68.4%	82.7%	63.2%	881	939	28.67	31.68
Nateran	155271	155271	-	-	53.8%	53.8%	0.0%	36.4%	873	934	45.83	36.72
Gyaraspur	106884	106884	-	-	64.7%	64.7%	0.0%	49.4%	879	980	42.77	38.55

Agriculture and Irrigation								Status of Ground Water	
Name of Block	Total Cropped	Net Sown Area	Gross Cropped	Per capita Net Sown Area	Agriculture Intensity	Net irrigated area to Net Sown area	Irrigated area to total cropped area	Level of GW Development	Status of ground water
Vidisha	1037.71	85.3%	112.7%	0.74	132	47.93	36.25	14.385	White
Gyaraspur	871.9	70.1%	76.9%	0.7	110	14.49	13.21	37.255	White
Basoda	1218.44	76.3%	83.0%	0.66	109	18.5	17.01	17.410	White
Nateran	1068.08	68.2%	77.4%	0.58	114	16.96	14.93	21.401	White
Kurwai	834.31	83.3%	90.5%	0.67	109	15.39	14.18	25.203	White
Sironj	1223.31	72.4%	78.1%	0.7	108	15.84	14.7	10.839	White
Lateri	934.88	55.1%	59.0%	0.66	107	7.9	7.39	15.054	White

Population in 1991 (in percentage)			Infrastructure (1991)		
Name of Block	SC	ST	Road length per 100 sq.kms.	Villages connected by all weatherroads	Population serviced per post office (1993-' 94)
Vidisha	22.05	3.97	20.53	24.00	2516
Gyaraspur	19.4	6.07	7.34	10.75	4153
Basoda	22.23	6.5	16.82	17.58	5002
Nateran	20.08	3.6	14.32	15.73	13744
Kurwai	23.76	7.07	13.42	23.19	4883
Sironj	23.31	2.15	8.67	10.37	5026
Lateri	19.91	8.93	7.88	6.11	5186

EDUCATION

Table ED1 highlights the districtwise number of literate and literacy rates for 2001. It also gives information on the gender ratio among the literate. The ratio of male to female literacy rate shows the relative deprivation of females in literacy rates to males.

Literate Population

A person who can both read and write with understanding in any language is treated as literate. A person who can merely read but cannot write is not literate. It is not necessary that a person who is literate should have received any formal education or should have passed any minimum educational standard. All children of the age of 6 years or less are treated as illiterate even if they might be going to school and may have picked up reading and writing a few words.

Literacy Rate

Literacy rate is calculated as the percentage of literate population over total population above the age of 7 years.

Gender Ratio among Literate

Gender ratio is the number of females in a population for every 1000 males. It is calculated by multiplying the female population in an area by 1000, and dividing this number by the male population in that area.

Male/ Female Literacy Rate

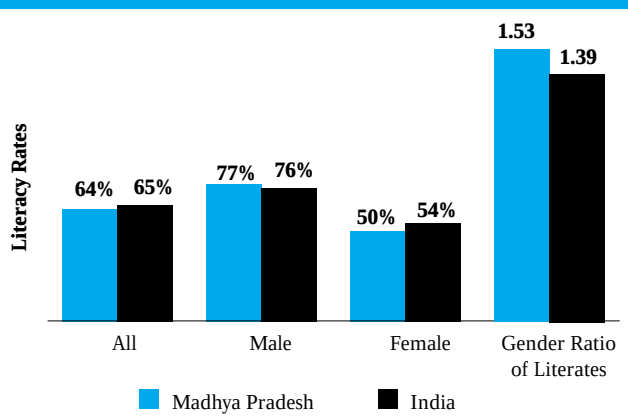
It is the ratio of male to female literacy rates.

Share of India's Literate

	Year	Madhya Pradesh	India
Share of India's Literate	2001		
Persons	5.6%		
Male	5.9%		
Female	5.3%		
Gender Ratio among Literates	2001	601	667
Literacy Rate	2001		
Persons		64.1%	65.38%
Male		76.80%	75.96%
Female		50.3%	54.28%
Male/ Female Literacy Rate	2001	1.53	1.39

Source: Census of India 2001

Literacy Rate 2001: Madhya Pradesh and India



ED1: LITERATE POPULATION AND LITERACY RATE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Total Population			Population in Age-Group 0-6		
	Persons	Male	Female	Persons	Male	Female
Balaghat	1445760	714938	730822	218596	113806	104790
Barwani	1081039	547837	533202	240538	122132	118406
Betul	1394421	709525	684896	230225	116965	113260
Bhind	1426951	780122	646829	247881	135553	112328
Bhopal	1836784	968964	867820	282284	146186	136098
Chhatarpur	1474633	788845	685788	284631	148218	136413
Chhindwara	1848882	946582	902300	292830	149277	143553
Damoh	1081909	568704	513205	191638	98335	93303
Datia	627818	337842	289976	106833	56982	49851
Dewas	1306617	676414	630203	228631	118195	110436
Dhar	1740577	890853	849724	334269	172222	162047
Dindori	579312	290572	288740	95513	48017	47496
East Nimar (Khandwa)	1708170	882371	825799	302400	155547	146853
Guna	1665503	883433	782070	320800	166278	154522
Gwalior	1629881	882258	747623	248337	134299	114038
Harda	474174	247129	227045	84952	44104	40848
Hoshangabad	1085011	571796	513215	172326	89423	82903
Indore	2585321	1352849	1232472	366526	191608	174918
Jabalpur	2167469	1134870	1032599	301227	156498	144729
Jhabua	1396677	701742	694935	320703	165784	154919
Katni	1063689	548077	515612	186455	95565	90890
Mandla	893908	446487	447421	143700	72368	71332
Mandsaur	1183369	604942	578427	193750	99573	94177
Morena	1587264	871243	716021	290670	158897	131773
Narsimhapur	957399	501407	455992	150158	78333	71825
Neemuch	725457	371972	353485	114370	59323	55047
Panna	854235	447923	406312	167421	86673	80748
Raisen	1120159	595730	524429	208148	107112	101036
Rajgarh	1253246	648850	604396	229273	117960	111313
Ratlam	1214536	620119	594417	213248	108793	104455
Rewa	1972333	1017402	954931	367825	190983	176842
Sagar	2021783	1073032	948751	364967	189146	175821
Satna	1868648	970114	898534	338527	175428	163099
Sehore	1078769	565387	513382	204334	105625	98709
Seoni	1165893	588135	577758	193281	97636	95645
Shahdol	1572748	803416	769332	264989	134505	130484
Shajapur	1290230	669419	620811	231765	119691	112074
Sheopur	559715	295630	264085	110469	57202	53267
Shivpuri	1440666	775473	665193	276520	144863	131657
Sidhi	1830553	947276	883277	373889	191719	182170
Tikamgarh	1203160	637842	565318	223003	116238	106765
Ujjain	1709885	881509	828376	276442	142995	133447
Umaria	515851	264998	250853	95643	48788	46855
Vidisha	1214759	647632	567127	229353	118071	111282
West Nimar (Khargone)	1529954	785212	744742	287618	146158	141460
Madhya Pradesh	**60385118**	**31456873**	**28928245**	**10618323**	**5504422**	**5113901**

Source: Census of India, 2001

ED1: LITERATE POPULATION AND LITERACY RATE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Literate Population			Gender Ratio among Literates	Literacy Rate			Male/ Female Literacy Rate
	Persons	Male	Female		Persons	Male	Female	
Balaghat	844438	487446	356992	732	68.8%	81.09%	57.0%	1.42
Barwani	347540	217490	130050	598	41.3%	51.09%	31.4%	1.63
Betul	778512	458125	320387	699	66.9%	77.31%	56.0%	1.38
Bhind	839687	541802	297885	550	71.2%	84.06%	55.7%	1.51
Bhopal	1167150	679308	487842	718	75.1%	82.56%	66.7%	1.24
Chhatarpur	635943	419619	216324	516	53.4%	65.50%	39.4%	1.66
Chhindwara	1027515	611572	415943	680	66.0%	76.70%	54.8%	1.40
Damoh	552533	353031	199502	565	62.1%	75.05%	47.5%	1.58
Datia	382989	232957	150032	644	73.5%	82.94%	62.5%	1.33
Dewas	657999	424632	233367	550	61.0%	76.07%	44.9%	1.69
Dhar	741182	475600	265582	558	52.7%	66.18%	38.6%	1.71
Dindori	263614	170774	92840	544	54.5%	70.41%	38.5%	1.83
East Nimar (Khandwa)	867506	538477	329029	611	61.7%	74.09%	48.5%	1.53
Guna	805920	535722	270198	504	59.9%	74.70%	43.1%	1.73
Gwalior	964234	604587	359647	595	69.8%	80.83%	56.8%	1.42
Harda	260066	159265	100801	633	66.8%	78.45%	54.1%	1.45
Hoshangabad	642131	392448	249683	636	70.4%	81.36%	58.0%	1.40
Indore	1660100	983693	676407	688	74.8%	84.71%	64.0%	1.32
Jabalpur	1422240	894197	528043	591	76.2%	91.40%	59.5%	1.54
Jhabua	399010	261288	137722	527	37.1%	48.75%	25.5%	1.91
Katni	567376	361460	205916	570	64.7%	79.88%	48.5%	1.65
Mandla	448979	278274	170705	613	59.8%	74.38%	45.4%	1.64
Mandsaur	699186	433462	265724	613	70.7%	85.77%	54.9%	1.56
Morena	850320	576809	273511	474	65.6%	80.97%	46.8%	1.73
Narsimhapur	632373	367206	265167	722	78.3%	86.79%	69.0%	1.26
Neemuch	406193	259612	146581	565	66.5%	83.04%	49.1%	1.69
Panna	423150	267387	155763	583	61.6%	74.02%	47.8%	1.55
Raisen	663621	401569	262052	653	72.8%	82.18%	61.9%	1.33
Rajgarh	553410	369133	184277	499	54.0%	69.53%	37.4%	1.86
Ratlam	677400	409592	267808	654	67.7%	80.10%	54.7%	1.47
Rewa	1000012	627819	372193	593	62.3%	75.97%	47.8%	1.59
Sagar	1128023	706797	421226	596	68.1%	79.96%	54.5%	1.47
Satna	996436	618459	377977	611	65.1%	77.82%	51.4%	1.51
Sehore	558115	359260	198855	554	63.8%	78.14%	48.0%	1.63
Seoni	640752	380126	260626	686	65.9%	77.50%	54.1%	1.43
Shahdol	755303	465252	290051	623	57.8%	69.55%	45.4%	1.53
Shajapur	752942	460030	292912	637	71.1%	83.68%	57.6%	1.45
Sheopur	209385	148278	61107	412	46.6%	62.19%	29.0%	2.15
Shivpuri	693228	471584	221644	470	59.5%	74.78%	41.5%	1.80
Sidhi	769407	514018	255389	497	52.8%	68.03%	36.4%	1.87
Tikamgarh	546945	359046	187899	523	55.8%	68.83%	41.0%	1.68
Ujjain	1020307	618139	402168	651	71.2%	83.70%	57.9%	1.45
Umaria	253200	160239	92961	580	60.3%	74.11%	45.6%	1.63
Vidisha	611927	395638	216289	547	62.1%	74.71%	47.4%	1.57
West Nimar (Khargone)	787810	480791	307019	639	63.4%	75.23%	50.9%	1.48
Madhya Pradesh	**31906109**	**19932013**	**11974096**	**601**	**64.1%**	**76.80%**	**50.3%**	**1.53**

Source: Census of India, 2001

ED 2: LITERACY RATE BY SEX AND LOCATION IN DISTRICTS OF MADHYA PRADESH, 1991-2001

Table ED 2 gives the literacy rates for the districts of Madhya Pradesh as per the 1991 and 2001 census. The literacy rates are segregated into male/ female and rural/ urban categories.

Literacy Rate

Literacy rate is calculated as a percentage of literate population over population above the age of 7 years.

Share of India's Literate			
	Year	Madhya Pradesh	India
Literacy Rate All	1991		
Persons		44.67	52.21
Male		58.54	64.13
Female		29.35	39.29
Literacy Rate Rural	1991		
Persons		35.53	44.69
Male		50.49	57.87
Female		19.17	30.62
Literacy Rate Urban	1991		
Persons		70.67	73.08
Male		80.98	81.09
Female		58.93	64.05
Literacy Rate All	2001		
Persons		64.11	65.38
Male		76.80	75.85
Female		50.28	54.16
Literacy Rate Rural	2001		
Persons		58.10	59.40
Male		72.10	71.40
Female		42.96	46.70
Literacy Rate Urban	2001		
Persons		79.67	80.30
Male		87.78	86.70
Female		70.62	73.10

Source: Census of India 2001

ED 2: LITERACY RATE BY SEX AND LOCATION IN DISTRICTS OF MADHYA PRADESH, 1991-2001

District	Literacy Rate 1991								
	Total			Rural			Urban		
	Persons	Male	Female	Person	Male	Female	Person	Male	Female
Balaghat	53.23	67.63	38.95	50.80	65.57	36.27	75.75	85.92	64.85
Barwani	28.08	36.77	19.01	21.02	28.99	12.77	64.48	76.03	51.97
Betul	45.89	57.42	33.90	38.78	50.61	26.71	76.29	85.24	66.23
Bhind	49.23	66.20	28.20	45.68	63.48	23.55	62.74	76.63	45.74
Bhopal	64.27	73.14	54.17	33.12	48.53	15.15	71.55	78.98	63.15
Chhatarpur	35.20	46.87	21.32	28.27	40.14	14.12	63.44	74.46	50.48
Chhindwara	44.90	56.65	32.52	36.30	48.58	23.58	72.45	81.82	62.04
Damoh	46.27	60.49	30.46	40.01	54.90	23.52	73.77	84.83	61.27
Datia	45.19	62.50	24.45	40.49	59.15	17.91	63.33	75.73	49.03
Dewas	44.08	61.15	25.57	35.90	54.28	16.20	67.03	79.99	52.47
Dhar	34.54	47.62	20.71	29.36	42.48	15.64	67.42	78.93	54.34
Dindori	37.74	55.05	20.21	30.57	45.32	15.81	69.63	82.17	55.95
East Nimar (Khandwa)	45.49	58.53	31.53	36.40	50.79	21.04	68.41	77.93	58.13
Guna	34.58	48.86	17.99	27.23	41.95	10.12	64.09	76.61	49.57
Gwalior	58.36	70.87	43.08	35.65	52.10	14.92	71.16	81.68	58.53
Harda	48.84	62.54	33.76	41.86	56.28	26.11	74.54	85.04	62.60
Hoshangabad	54.11	67.19	39.29	42.83	57.41	26.42	78.98	88.61	67.95
Indore	66.32	77.99	53.35	43.70	63.00	22.53	75.92	84.28	66.56
Jabalpur	64.60	75.64	52.29	46.45	61.63	30.00	77.67	85.48	68.72
Jhabua	19.01	26.29	11.52	13.74	20.49	6.83	69.99	80.68	58.36
Katni	47.81	63.97	30.53	40.45	58.21	21.71	72.26	82.57	60.73
Mandla	37.02	50.45	23.48	37.57	53.29	21.73	79.02	88.50	68.81
Mandsaur	47.66	66.98	27.24	41.68	62.52	19.72	71.03	84.24	56.86
Morena	45.93	63.53	23.79	41.12	59.70	17.68	62.07	76.47	44.15
Narsimhapur	55.65	68.44	41.59	51.37	64.89	36.55	79.30	87.85	69.73
Neemuch	50.27	69.34	30.04	42.25	63.26	20.16	70.57	84.48	55.46
Panna	33.68	46.29	19.41	29.27	42.08	14.85	62.33	73.13	49.67
Raisen	40.76	54.02	25.47	36.13	49.82	20.45	65.10	75.75	52.42
Rajgarh	31.81	46.73	15.62	25.65	40.65	9.46	62.00	76.14	46.27
Ratlam	44.15	58.36	19.13	30.56	46.41	13.94	72.07	82.57	60.76
Rewa	44.38	60.67	26.88	40.54	57.35	22.81	64.98	77.51	50.11
Sagar	53.44	67.02	37.78	44.01	58.96	26.83	75.49	85.77	63.54
Satna	44.65	60.03	27.80	39.52	55.55	22.19	65.04	77.26	50.89
Sehore	40.43	56.90	21.99	34.72	52.37	15.07	65.76	76.66	53.22
Seoni	44.49	57.50	31.14	40.76	54.12	27.14	78.68	87.43	69.11
Shahdol	35.45	48.93	20.93	26.99	40.45	12.91	64.24	76.12	50.13
Shajapur	39.20	56.99	19.77	33.72	52.20	13.58	64.37	78.79	48.43
Sheopur	27.55	40.73	12.27	22.63	35.59	7.61	55.81	70.38	38.99
Shivpuri	33.03	47.50	15.64	27.11	41.86	9.36	65.14	78.13	49.59
Sidhi	29.15	43.23	13.61	26.54	40.47	11.40	66.43	78.64	49.58
Tikamgarh	24.78	47.52	19.96	30.57	43.54	15.39	55.35	67.23	41.88
Ujjain	49.06	64.25	32.64	33.49	51.89	13.76	72.13	82.38	60.91
Umaria	32.63	46.85	17.43	27.88	42.28	12.66	55.87	68.41	41.64
Vidisha	44.08	58.04	27.81	37.23	52.34	19.54	70.24	79.96	59.06
West Nimar (Khargone)	41.23	55.43	26.09	36.19	50.71	20.82	68.52	80.42	55.32
Madhya Pradesh	**44.67**	**58.54**	**29.35**	**35.53**	**50.49**	**19.17**	**70.67**	**80.98**	**58.93**

Source: Census of India 1991, 2001

ED 2: LITERACY RATE BY SEX AND LOCATION IN DISTRICTS OF MADHYA PRADESH, 1991-2001

District	Literacy Rate 2001								
	Total			Rural			Urban		
	Persons	Male	Female	Person	Male	Female	Person	Male	Female
Balaghat	68.81	81.09	57.02	66.60	79.04	54.64	82.61	90.53	74.49
Barwani	41.35	51.09	31.35	35.07	44.76	25.20	74.86	84.20	64.93
Betul	66.87	77.31	56.05	62.48	73.79	50.89	84.96	91.36	77.98
Bhind	71.22	84.06	55.73	69.68	83.08	53.41	76.06	87.17	62.93
Bhopal	75.08	82.56	66.67	53.35	68.05	36.64	79.99	85.86	73.41
Chhatarpur	53.44	65.50	39.38	47.48	60.52	32.24	73.60	82.48	63.35
Chhindwara	66.03	76.70	54.82	60.76	72.54	48.49	81.46	88.65	73.70
Damoh	62.06	75.05	47.51	57.42	71.50	41.63	81.10	89.66	71.56
Datia	73.51	82.94	62.48	72.05	81.61	60.81	78.60	87.65	68.20
Dewas	61.04	76.07	44.90	54.66	71.65	36.47	77.36	87.30	66.58
Dhar	52.70	66.18	38.62	48.02	62.07	33.61	75.20	84.85	64.12
Dindori	54.49	70.41	38.48	53.11	69.32	36.86	81.71	91.32	71.50
East Nimar (Khandwa)	61.71	74.09	48.46	55.56	69.91	40.18	77.45	84.80	69.61
Guna	59.93	74.70	43.06	55.65	71.61	37.30	75.04	85.75	63.06
Gwalior	69.79	80.83	56.76	53.72	69.70	34.40	79.83	87.91	70.44
Harda	66.82	78.45	54.14	61.90	74.56	48.17	83.95	91.81	75.21
Hoshangabad	70.36	81.36	58.02	63.33	76.19	48.91	85.20	92.40	77.16
Indore	74.82	84.32	63.96	57.95	74.76	40.03	81.21	88.41	73.21
Jabalpur	76.21	91.40	59.47	64.31	77.24	50.24	84.36	90.23	77.84
Jhabua	37.08	48.75	25.50	32.29	43.76	20.86	82.60	88.95	75.75
Katni	64.68	79.88	48.48	59.81	77.10	41.55	81.75	89.44	73.30
Mandla	60.77	76.71	45.39	56.71	72.11	41.50	85.83	92.65	78.67
Mandsaur	70.65	85.77	54.87	68.09	84.54	51.00	81.43	90.91	71.36
Morena	65.58	80.97	46.81	62.51	79.07	42.15	76.35	87.76	62.83
Narsimhapur	78.34	86.79	69.02	77.05	85.92	67.28	84.86	91.22	77.87
Neemuch	66.47	83.04	49.12	61.47	80.40	41.89	79.05	89.55	67.71
Panna	61.61	74.02	47.84	59.16	72.13	44.80	77.66	86.31	67.92
Raisen	72.76	82.18	61.89	71.46	81.25	60.19	78.33	86.11	69.21
Rajgarh	54.05	69.53	37.37	50.03	66.33	32.54	72.69	84.24	60.04
Ratlam	67.65	80.10	54.66	60.98	75.45	46.00	82.17	90.10	73.74
Rewa	62.33	75.97	47.83	59.47	73.85	44.41	76.30	85.95	65.32
Sagar	68.08	79.96	54.50	61.64	75.27	45.94	82.85	90.85	73.86
Satna	65.12	77.82	51.40	61.56	75.21	47.01	78.30	87.21	68.17
Sehore	63.83	78.14	47.95	60.58	76.25	43.22	77.80	86.25	68.39
Seoni	65.88	77.50	54.06	63.41	75.63	51.05	86.13	92.46	79.41
Shahdol	57.76	69.55	45.40	50.75	63.20	38.04	77.45	86.62	67.15
Shajapur	71.14	83.68	57.58	69.40	82.49	55.28	78.54	88.78	67.42
Sheopur	46.61	62.19	28.99	42.86	59.07	24.56	65.98	78.27	51.97
Shivpuri	59.55	74.78	41.54	56.13	72.51	36.65	75.78	85.75	64.32
Sidhi	52.82	68.03	36.43	49.27	64.93	32.68	73.12	84.81	59.21
Tikamgarh	55.80	68.83	40.98	52.98	66.68	37.34	68.53	78.64	57.19
Ujjain	71.18	83.70	57.87	64.29	79.66	48.09	81.53	89.70	72.73
Umaria	60.26	74.11	45.57	57.77	72.15	42.64	72.60	83.65	60.44
Vidisha	62.10	74.71	47.45	57.53	71.45	41.26	78.08	86.27	68.76
West Nimar (Khargone)	63.41	75.23	50.89	60.42	72.75	47.40	78.87	87.88	69.15
Madhya Pradesh	**64.11**	**76.80**	**50.28**	**58.10**	**72.10**	**42.96**	**79.67**	**87.78**	**70.62**

Source: Census of India 1991, 2001

ED 3: ELEMENTARY EDUCATION INFRASTRUCTURE AND ENROLMENT IN ELEMENTARY SCHOOL IN DISTRICTS OF MADHYA PRADESH, 2000

Table ED 3 gives information on the educational infrastructure and enrolment in districts of Madhya Pradesh. This includes the number of educational institutions and stage wise enrolment of boys and girls at primary level and middle levels. Total enrolment of boys and girls has also been calculated. Information is also given on the number of educational institutions per 10 square kilometers, to get an idea of the physical access of schools, and estimated population of children in the age group of 6-14 years to number of schools to indicate basic provision of educational institutions.

Primary School

Classes first to fifth constitute the primary school in Madhya Pradesh.

Middle School

Classes sixth to eighth constitute the middle school in Madhya Pradesh.

Elementary School

Classes first to eighth constitute the elementary school in Madhya Pradesh.

Elementary Institutions per 10 sq. km.

Gives an idea of the physical access to school and is calculated by dividing the total number of elementary institutions by the total geographical area and multiplying the quotient by 10.

Children per institution

Gives an idea of the basic provisioning of school and is obtained by dividing the total number of children enrolled in elementary school by the total number of elementary institutions.

Number of Institutions

	Year	Madhya Pradesh	India
No. of Institutions	2000		
Primary School		1917	36495
Middle School		210	198004
Enrolment Boys	2000		
Primary School		6459172	64103289
Middle School		2259128	25082351
Enrolment Girls	2000		
Primary School		4996763	49509252
Middle School		1341093	16982847

Source: Lok Sampark Abhiyaan II for M.P. and www.nic.in\ departments\ ministry of education for India

ED 3: ELEMENTARY EDUCATION INFRASTRUCTURE AND ENROLMENT IN ELEMENTARY SCHOOL IN DISTRICTS OF MADHYA PRADESH, 2000

District	Primary				Middle			
	No of Institutions*	Total Enrolment	Boys	Girls	No of Institutions	Total Enrolment	Boys	Girls
Balaghat	2128	213713	108781	104932	525	101034	52126	48908
Barwani	2126	129985	71763	58222	472	22032	13176	8856
Betul	1998	213741	112938	100803	579	54679	29881	24798
Bhind	1769	233572	130162	103410	584	81370	49812	31558
Bhopal	797	214135	113361	100774	253	90542	50044	40498
Chhatarpur	1887	200507	110237	90270	459	41510	28369	13141
Chhindwara	2689	260647	139756	120891	656	71881	39019	32862
Damoh	1417	168571	90307	78264	478	47624	29149	18475
Datia	796	96484	51836	44648	306	25689	16835	8854
Dewas	1490	176478	95904	80574	379	54481	34832	19649
Dhar	3212	227299	125924	101375	651	57809	33207	24602
Dindori	1376	78499	41581	36918	288	20649	11838	8811
East Nimar (Khandwa)	1745	215031	118339	96692	435	45936	27709	18227
Guna	2680	211767	120401	91366	666	52083	34500	17583
Gwalior	1419	177029	98890	78139	401	53304	31709	21595
Harda	526	66649	37536	29113	156	23510	14361	9149
Hoshangabad	1128	134458	71088	63370	393	42395	24791	17604
Indore	1037	234243	125227	109016	584	105184	57473	47711
Jabalpur	1584	254842	131201	123641	521	52577	30234	22343
Jhabua	3876	232243	136637	95606	478	28848	17915	10933
Katni	1283	141134	77410	63724	325	44760	28139	16621
Mandla	2081	136537	71043	65494	507	41914	24918	16996
Mandsaur	1244	145712	77392	68320	350	39310	25801	13509
Morena	1768	248569	136612	111957	406	81841	52954	28887
Narsimhapur	1224	120499	63964	56535	328	36996	21489	15507
Neemuch	867	83488	45413	38075	295	24489	15068	9421
Panna	1589	122108	67738	54370	445	25958	16351	9607
Raisen	1805	164689	87669	77020	507	35103	22505	12598
Rajgarh	1874	167024	91886	75138	551	44323	25377	18946
Ratlam	1667	168491	94633	73858	428	33488	22029	11459
Rewa	3565	285620	157555	128065	509	95985	54943	41042
Sagar	2133	220102	117704	102398	638	69768	43252	26516
Satna	2679	237815	124691	113124	663	91710	54859	36851
Sehore	1380	166178	89403	76775	489	48142	29341	18801
Seoni	2180	182713	93785	88928	560	48550	26660	21890
Shahdol	2935	206434	107744	98690	534	81685	44551	37134
Shajapur	1528	183558	100120	83438	600	47635	33411	14224
Sheopur	779	83375	48617	34758	161	13948	10257	3691
Shivpuri	2262	253319	143872	109447	568	41693	30951	10742
Sidhi	3187	273640	149285	124355	728	63885	40023	23862
Tikamgarh	1786	180945	98906	82039	465	44154	33204	10950
Ujjain	1452	284811	156357	128454	439	69817	41907	27910
Umaria	821	80103	42777	37326	150	27555	15904	11651
Vidisha	1830	186126	100278	85848	459	35866	23760	12106
West Nimar (Khargone)	2620	200623	108913	91710	674	52661	31783	20878
Madhya Pradesh	**82219**	**8263506**	**4485636**	**3777870**	**21043**	**2314373**	**1396417**	**917956**

* Figures for Primary Institutions include Government Primary Schools and EGS Schools
Source: Lok Sampark Abhiyaan II

ED 3: ELEMENTARY EDUCATION INFRASTRUCTURE AND ENROLMENT IN ELEMENTARY SCHOOL IN DISTRICTS OF MADHYA PRADESH, 2000

District	Total Enrolment in Elementary School				Elementry Institutions per 10 sq. kms		
	Total Enrolment	Boys	Girls	Primary	Middle	Total	Children (6 to 14 years per Elementary Institution
Balaghat	314747	160907	153840	2.31	0.57	2.87	118.6
Barwani	152017	84939	67078	3.92	0.87	4.79	58.5
Betul	268420	142819	125601	1.99	0.58	2.57	104.2
Bhind	314942	179974	134968	3.97	1.31	5.28	133.8
Bhopal	304677	163405	141272	2.88	0.91	3.79	290.2
Chhatarpur	242017	138606	103411	2.17	0.53	2.70	103.2
Chhindwara	332528	178775	153753	2.28	0.56	2.83	99.4
Damoh	216195	119456	96739	1.94	0.65	2.59	114.1
Datia	122173	68671	53502	2.96	1.14	4.10	110.9
Dewas	230959	130736	100223	2.12	0.54	2.66	123.6
Dhar	285108	159131	125977	3.94	0.80	4.74	73.8
Dindori	99148	53419	45729	1.84	0.39	2.23	59.6
East Nimar (Khandwa)	260967	146048	114919	1.62	0.40	2.02	119.7
Guna	263850	154901	108949	2.42	0.60	3.02	78.9
Gwalior	230333	130599	99734	3.11	0.88	3.99	126.6
Harda	90159	51897	38262	1.58	0.47	2.05	132.2
Hoshangabad	176853	95879	80974	1.68	0.59	2.27	116.3
Indore	339427	182700	156727	2.66	1.50	4.16	209.4
Jabalpur	307419	161435	145984	3.04	1.00	4.04	146.0
Jhabua	261091	154552	106539	5.72	0.70	6.42	60.0
Katni	185894	105549	80345	2.59	0.66	3.25	115.6
Mandla	178451	95961	82490	3.59	0.87	4.46	69.0
Mandsaur	185022	103193	81829	2.25	0.63	2.88	116.1
Morena	330410	189566	140844	3.54	0.81	4.36	152.0
Narsimhapur	157495	85453	72042	2.38	0.64	3.02	101.5
Neemuch	107977	60481	47496	2.04	0.69	2.73	92.9
Panna	148066	84089	63977	2.23	0.62	2.85	72.8
Raisen	199792	110174	89618	2.13	0.60	2.73	86.4
Rajgarh	211347	117263	94084	3.05	0.90	3.94	87.2
Ratlam	201979	116662	85317	3.43	0.88	4.31	96.4
Rewa	381605	212498	169107	5.65	0.81	6.45	93.7
Sagar	289870	160956	128914	2.08	0.62	2.70	104.6
Satna	329525	179550	149975	3.57	0.88	4.45	98.6
Sehore	214320	118744	95576	2.10	0.74	2.84	114.7
Seoni	231263	120445	110818	2.49	0.64	3.13	84.4
Shahdol	288119	152295	135824	2.95	0.54	3.49	83.1
Shajapur	231193	133531	97662	2.47	0.97	3.43	108.6
Sheopur	97323	58874	38449	1.18	0.24	1.42	103.5
Shivpuri	295012	174823	120189	2.20	0.55	2.75	104.2
Sidhi	337525	189308	148217	3.03	0.69	3.72	86.2
Tikamgarh	225099	132110	92989	3.54	0.92	4.46	100.0
Ujjain	354628	198264	156364	2.38	0.72	3.10	187.5
Umaria	107658	58681	48977	2.01	0.37	2.38	110.9
Vidisha	221992	124038	97954	2.48	0.62	3.11	97.0
West Nimar (Khargone)	253284	140696	112588	3.26	0.84	4.10	76.9
Madhya Pradesh	**10577879**	**5882053**	**4695826**	**2.67**	**0.68**	**3.35**	**102.4**

* Figures for Primary Institutions include Government Primary Schools and EGS Schools
Source: Lok Sampark Abhiyaan II

EMPLOYMENT

Table EL 1 gives the total workers, main workers and marginal workers as per the 1991 and 2001 census. The growth in total workers and main workers between 1991 and 2001 is also presented in the table. The data on workers is segregated into male/ female categories. Information on Worker Participation Rate (WPR) for 1991 and 2001 is also given in the table along with the change in WPR for all areas. The WPR is segregated into male/ female and rural/ urban categories.

Main Workers

Census records a person as a Main Worker if he/she has worked for a major part of the year preceding the enumeration.

Marginal Workers

Census records a person as a marginal workers if he/ she has worked anytime at all in the year preceding the enumeration but has not worked for a major part of the year.

Growth in Workers

This shows the change (growth or decline) in number of workers and is shown as the percentage increase in workers between 1991 and 2001 to total workers enumerated in the year 1991.

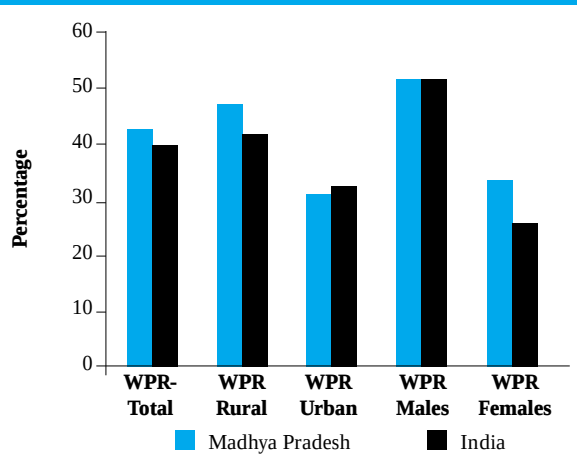
Worker Participation Rate/ Ratio (WPR)

This figure is the total number of main and marginal workers in an area to the total population residing in that area.

	Year	Madhya Pradesh	India
Workers			
Main Workers	2001	19077568	313173394
Marginal Workers	2001	6678917	89338796
Share of India			
MP Main Workers	6.1%		
MP Marginal Workers	7.5%		
WPR	2001	42.8%	39.3%
WPR Rural	2001	47.1%	42.0%
WPR Urban	2001	30.6%	32.2%
WPR Males	2001	51.6%	51.9%
WPR Females	2001	33.1%	25.7%

Source: Census of India 2001

Work Participation Rate 2001: Madhya Pradesh and India



EL 1: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991 & 2001

District	Total Workers 2001			Total Workers 1991		
	Persons	Male	Female	Persons	Male	Female
Balaghat	726560	388930	337630	679990	369239	310751
Barwani	523096	290376	232720	395069	224739	170330
Betul	615971	362554	253417	551244	319965	231279
Bhind	525495	378181	147314	333580	310772	22808
Bhopal	589490	461931	127559	430144	344245	85899
Chhatarpur	593112	389746	203366	475008	322254	152754
Chhindwara	779222	481976	297246	681654	419983	261671
Damoh	485195	302284	182911	367699	247499	120200
Datia	316247	190876	125371	191608	141079	50529
Dewas	579217	350191	229026	424290	273953	150337
Dhar	811705	468082	343623	638941	370583	268358
Dindori	330918	171928	158990	261029	144027	116987
East Nimar (Khandwa)	749860	466724	283136	625480	391976	233504
Guna	681951	455214	226737	485405	359971	125434
Gwalior	529841	422036	107805	390993	333663	57330
Harda	213034	130427	82607	161674	105133	56541
Hoshangabad	386643	282795	103848	313145	234240	78905
Indore	890961	670133	220828	630518	489691	140827
Jabalpur	799035	569665	229370	610995	450613	160382
Jhabua	732960	381826	351134	610818	321466	289352
Katni	443390	282699	160691	369336	238053	131283
Mandla	463641	248082	215559	400112	215557	184506
Mandsaur	570771	337128	233643	442208	267397	174811
Morena	589236	420048	169188	367476	325182	42294
Narsimhapur	403220	271098	132122	310812	215426	95386
Neemuch	348228	206363	141865	281933	167597	114336
Panna	371694	230148	141546	286201	192974	93227
Raisen	409791	295500	114291	327593	237432	90161
Rajgarh	626352	354797	271555	466269	283640	182629
Ratlam	547359	332704	214655	447002	273738	173264
Rewa	863608	502694	360914	586990	373171	213819
Sagar	839313	552051	287262	643835	441397	202438
Satna	745213	471117	274096	591259	381101	210158
Sehore	452390	276858	175532	353498	224620	128878
Seoni	569211	318165	251046	492327	275542	216785
Shahdol	687868	425442	262426	573519	368555	204964
Shajapur	630091	369233	260858	461488	289755	171733
Sheopur	230027	146531	83496	171491	118065	53426
Shivpuri	652718	404832	247886	481166	323182	157984
Sidhi	757408	455278	302130	590887	368434	222453
Tikamgarh	566468	333353	233115	402469	257850	144619
Ujjain	754308	474794	279514	550423	375652	174771
Umaria	218229	134758	83471	184818	114706	70112
Vidisha	450975	331977	118998	363901	269770	94131
West Nimar (Khargone)	704463	410762	293701	535352	320137	215215
Madhya Pradesh	**25756485**	**16202287**	**9554198**	**19941649**	**13094024**	**6847561**

Source: Census of India, 1991, 2001

EL 1: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991 & 2001

District	Growth in Workers 1991-2001			Main Workers, 2001		
	Persons	Male	Female	Persons	Male	Female
Balaghat	6.85%	5.33%	8.65%	474993	309013	165980
Barwani	32.41%	29.21%	36.63%	389939	254006	135933
Betul	11.74%	13.31%	9.57%	417646	297277	120369
Bhind	57.53%	21.69%	545.89%	396595	334430	62165
Bhopal	37.04%	34.19%	48.50%	499202	416035	83167
Chhatarpur	24.86%	20.94%	33.13%	441466	349133	92333
Chhindwara	14.31%	14.76%	13.60%	559050	412308	146742
Damoh	31.95%	22.14%	52.17%	347723	262380	85343
Datia	65.05%	35.30%	148.12%	226149	165602	60547
Dewas	36.51%	27.83%	52.34%	428109	307326	120783
Dhar	27.04%	26.31%	28.05%	595638	407395	188243
Dindori	26.77%	19.37%	35.90%	260917	146914	114003
East Nimar (Khandwa)	19.89%	19.07%	21.26%	626895	427345	199550
Guna	40.49%	26.46%	80.76%	496244	400370	95874
Gwalior	35.51%	26.49%	88.04%	441803	384419	57384
Harda	31.77%	24.06%	46.10%	151586	114645	36941
Hoshangabad	23.47%	20.73%	31.61%	293477	246173	47304
Indore	41.31%	36.85%	56.81%	765760	614764	150996
Jabalpur	30.78%	26.42%	43.01%	624689	489415	135274
Jhabua	20.00%	18.78%	21.35%	487963	310015	177948
Katni	20.05%	18.75%	22.40%	295073	226682	68391
Mandla	15.88%	15.09%	16.83%	321257	198699	122558
Mandsaur	29.07%	26.08%	33.65%	454612	305692	148920
Morena	60.35%	29.17%	300.03%	450067	376175	73892
Narsimhapur	29.73%	25.84%	38.51%	309808	237791	72017
Neemuch	23.51%	23.13%	24.08%	281932	185234	96698
Panna	29.87%	19.26%	51.83%	259533	196504	63029
Raisen	25.09%	24.46%	26.76%	307259	254682	52577
Rajgarh	34.33%	25.09%	48.69%	438389	303013	135376
Ratlam	22.45%	21.54%	23.89%	404655	292979	111676
Rewa	47.12%	34.71%	68.79%	585601	410159	175442
Sagar	30.36%	25.07%	41.90%	637546	488122	149424
Satna	26.04%	23.62%	30.42%	554459	406282	148177
Sehore	27.98%	23.26%	36.20%	308690	234248	74442
Seoni	15.62%	15.47%	15.80%	381256	263248	118008
Shahdol	19.94%	15.44%	28.04%	458818	342316	116502
Shajapur	36.53%	27.43%	51.90%	436725	324881	111844
Sheopur	34.13%	24.11%	56.28%	153331	128353	24978
Shivpuri	35.65%	25.26%	56.91%	507427	364063	143364
Sidhi	28.18%	23.57%	35.82%	544083	397594	146489
Tikamgarh	40.75%	29.28%	61.19%	395969	298742	97227
Ujjain	37.04%	26.39%	59.93%	587288	421230	166058
Umaria	18.08%	17.48%	19.05%	142523	106270	36253
Vidisha	23.93%	23.06%	26.42%	345555	292383	53172
West Nimar (Khargone)	31.59%	28.31%	36.47%	589868	377382	212486
Madhya Pradesh	**29.16%**	**23.74%**	**39.53%**	**19077568**	**14081689**	**4995879**

Source: Census of India, 1991, 2001

EL 1: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991 & 2001

District	Main Workers 1991			Growth in Main Workers 1991-2001		
	Persons	Male	Female	Persons	Male	Female
Balaghat	587389	364340	223049	-19.13%	-15.19%	-25.59%
Barwani	323851	220455	103396	20.41%	15.22%	31.47%
Betul	496013	314903	181110	-15.80%	-5.60%	-33.54%
Bhind	321461	309345	12116	23.37%	8.11%	413.08%
Bhopal	407199	340918	66281	22.59%	22.03%	25.48%
Chhatarpur	397833	316930	80903	10.97%	10.16%	14.13%
Chhindwara	587232	414182	173050	-4.80%	-0.45%	-15.20%
Damoh	321609	243922	77687	8.12%	7.57%	9.85%
Datia	161844	138186	23658	39.73%	19.84%	155.93%
Dewas	379062	270821	108241	12.94%	13.48%	11.59%
Dhar	564849	365533	199316	5.45%	11.45%	-5.56%
Dindori	309369	184199	125170	-15.66%	-20.24%	-8.92%
East Nimar (Khandwa)	568445	386872	181573	10.28%	10.46%	9.90%
Guna	413413	355213	58200	20.04%	12.71%	64.73%
Gwalior	366108	331016	35092	20.68%	16.13%	63.52%
Harda	139709	103790	35919	8.50%	10.46%	2.85%
Hoshangabad	286281	231575	54706	2.51%	6.30%	-13.53%
Indore	607467	486970	120497	26.06%	26.24%	25.31%
Jabalpur	576726	446869	129857	8.32%	9.52%	4.17%
Jhabua	444263	306453	137810	9.84%	1.16%	29.13%
Katni	317872	234473	83399	-7.17%	-3.32%	-18.00%
Mandla	291292	171216	120076	10.29%	16.05%	2.07%
Mandsaur	393490	264243	129247	15.53%	15.69%	15.22%
Morena	349567	323845	25722	28.75%	16.16%	187.27%
Narsimhapur	283414	213046	70368	9.31%	11.61%	2.34%
Neemuch	258474	165700	92774	9.08%	11.79%	4.23%
Panna	242893	189720	53173	6.85%	3.58%	18.54%
Raisen	294415	234011	60404	4.36%	8.83%	-12.96%
Rajgarh	367871	277826	90045	19.17%	9.07%	50.34%
Ratlam	385923	267693	118230	4.85%	9.45%	-5.54%
Rewa	524958	365867	159091	11.55%	12.11%	10.28%
Sagar	568652	434406	134246	12.12%	12.37%	11.31%
Satna	527001	374794	152207	5.21%	8.40%	-2.65%
Sehore	305946	221592	84354	0.90%	5.71%	-11.75%
Seoni	414419	270878	143541	-8.00%	-2.82%	-17.79%
Shahdol	496959	363062	133897	-7.67%	-5.71%	-12.99%
Shajapur	396024	285145	110879	10.28%	13.94%	0.87%
Sheopur	144442	117089	27353	6.15%	9.62%	-8.68%
Shivpuri	399019	318990	80029	27.17%	14.13%	79.14%
Sidhi	495867	361303	134564	9.72%	10.04%	8.86%
Tikamgarh	330150	253522	76628	19.94%	17.84%	26.88%
Ujjain	502205	371299	130906	16.94%	13.45%	26.85%
Umaria	158848	112278	46570	-10.28%	-5.35%	-22.15%
Vidisha	321146	265224	55922	7.60%	10.24%	-4.92%
West Nimar (Khargone)	486942	316538	170404	21.14%	19.22%	24.70%
Madhya Pradesh	**17517912**	**12906252**	**4611660**	**8.90%**	**9.11%**	**8.33%**

Source: Census of India, 1991, 2001

EL 1: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991 & 2001

District	Marginal Workers 2001			Marginal Workers 1991		
	Persons	Male	Female	Persons	Male	Female
Balaghat	251567	79917	171650	92601	4899	87702
Barwani	133157	36370	96787	71218	4284	66934
Betul	198325	65277	133048	55231	5062	50169
Bhind	128900	43751	85149	12119	1427	10692
Bhopal	90288	45896	44392	22945	3327	19618
Chhatarpur	151646	40613	111033	77175	5324	71851
Chhindwara	220172	69668	150504	94422	5801	88621
Damoh	137472	39904	97568	46090	3577	42513
Datia	90098	25274	64824	29764	2893	26871
Dewas	151108	42865	108243	45228	3132	42096
Dhar	216067	60687	155380	74092	5050	69042
Dindori	70001	25014	44987	35904	2134	33770
East Nimar (Khandwa)	122965	39379	83586	57035	5104	51931
Guna	185707	54844	130863	71992	4758	67234
Gwalior	88038	37617	50421	24885	2647	22238
Harda	61448	15782	45666	21965	1343	20622
Hoshangabad	93166	36622	56544	26864	2665	24199
Indore	125201	55369	69832	23051	2721	20330
Jabalpur	174346	80250	94096	34269	3744	30525
Jhabua	244997	71811	173186	166555	15013	151542
Katni	148317	56017	92300	51464	3580	47884
Mandla	142384	49383	93001	24529	2016	22513
Mandsaur	116159	31436	84723	48718	3154	45564
Morena	139169	43873	95296	17909	1337	16572
Narsimhapur	93412	33307	60105	27398	2380	25018
Neemuch	66296	21129	45167	23459	1897	21562
Panna	112161	33644	78517	43308	3254	40054
Raisen	102532	40818	61714	33178	3421	29757
Rajgarh	187963	51784	136179	98398	5814	92584
Ratlam	142704	39725	102979	61079	6045	55034
Rewa	278007	92535	185472	62032	7304	54728
Sagar	201767	63929	137838	75183	6991	68192
Satna	190754	64835	125919	64258	6307	57951
Sehore	143700	42610	101090	47552	3028	44524
Seoni	187955	54917	133038	77908	4664	73244
Shahdol	229050	83126	145924	76560	5493	71067
Shajapur	193366	44352	149014	65464	4610	60854
Sheopur	76696	18178	58518	27049	976	26073
Shivpuri	145291	40769	104522	82147	4192	77955
Sidhi	213325	57684	155641	95020	7131	87889
Tikamgarh	170499	34611	135888	72319	4328	67991
Ujjain	167020	53564	113456	48218	4353	43865
Umaria	75706	28488	47218	25970	2428	23542
Vidisha	105420	39594	65826	42755	4546	38209
West Nimar (Khargone)	114595	33380	81215	48410	3599	44811
Madhya Pradesh	**6678917**	**2120598**	**4558319**	**2423690**	**187753**	**2235937**

Source: Census of India, 1991, 2001

EL 1: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991 & 2001

District	WPR - All 2001			WPR - All 1991		
	Persons	Male	Female	Persons	Male	Female
Balaghat	50.25	54.40	46.19	49.78	54.12	45.46
Barwani	48.39	53.00	43.65	47.46	53.03	41.68
Betul	44.17	51.10	37.00	46.66	53.24	39.84
Bhind	36.83	48.48	22.77	27.37	46.29	4.16
Bhopal	32.04	47.61	14.67	31.83	48.13	13.50
Chhatarpur	40.22	49.41	29.66	41.02	51.65	28.60
Chhindwara	42.15	50.93	32.95	43.45	52.28	34.19
Damoh	44.85	53.15	35.64	40.94	52.50	28.17
Datia	50.37	56.50	43.23	37.18	50.56	21.38
Dewas	44.33	51.78	36.33	41.04	50.98	30.29
Dhar	46.63	52.54	40.44	46.73	52.87	40.27
Dindori	57.08	59.09	55.05	51.02	55.88	46.08
East Nimar (Khandwa)	43.90	52.89	34.30	43.69	53.05	33.71
Guna	40.94	51.52	28.99	37.04	51.52	20.51
Gwalior	32.51	47.84	14.42	30.23	47.24	9.76
Harda	44.93	52.78	36.38	42.46	52.86	31.09
Hoshangabad	35.63	49.46	20.23	35.93	50.00	18.88
Indore	36.20	52.07	18.80	34.34	50.83	16.14
Jabalpur	37.08	50.45	22.37	34.56	48.51	19.11
Jhabua	52.57	54.39	50.72	54.04	56.22	51.80
Katni	41.68	51.58	31.17	41.88	52.35	30.73
Mandla	51.87	55.56	48.18	51.32	55.02	47.57
Mandsaur	48.23	55.73	40.39	46.21	54.40	37.57
Morena	37.12	48.21	23.63	28.73	45.96	7.40
Narsimhapur	42.12	54.07	28.97	39.57	52.45	25.45
Neemuch	48.00	55.48	40.13	47.12	54.43	39.37
Panna	43.51	51.38	34.84	41.60	53.20	28.67
Raisen	36.58	49.60	21.79	37.38	50.91	21.99
Rajgarh	49.98	54.68	44.93	46.97	54.95	38.32
Ratlam	45.05	53.63	36.09	45.99	54.88	36.62
Rewa	43.77	49.47	37.72	37.75	46.36	28.51
Sagar	41.51	51.45	30.28	39.07	50.38	26.23
Satna	39.86	48.54	30.49	40.35	49.88	29.96
Sehore	41.94	48.97	34.19	42.02	50.67	32.38
Seoni	48.82	54.10	43.45	49.19	54.34	43.91
Shahdol	43.74	52.96	34.12	43.35	54.04	31.97
Shajapur	48.84	55.16	42.02	44.66	53.79	34.72
Sheopur	41.10	49.57	31.62	39.74	51.44	26.45
Shivpuri	45.31	52.20	37.26	42.47	52.74	30.37
Sidhi	41.37	48.06	34.20	43.02	51.55	33.77
Tikamgarh	47.08	52.26	41.24	42.78	51.28	33.02
Ujjain	44.11	53.86	33.73	39.80	52.39	26.24
Umaria	42.30	50.85	33.27	43.92	52.93	34.35
Vidisha	37.12	51.26	20.98	37.50	52.09	20.80
West Nimar (Khargone)	46.01	52.30	39.39	44.77	51.96	37.13
Madhya Pradesh	**42.75**	**51.62**	**33.10**	**41.06**	**51.56**	**29.55**

Source: Census of India, 1991, 2001

EL 1: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991 & 2001

District	Change in WPR 1991-2001			WPR - Rural 2001		
	Persons	Male	Female	Persons	Male	Female
Balaghat	0.47	0.28	0.73	52.9%	55.5%	50.4%
Barwani	0.93	-0.03	1.97	50.9%	53.4%	48.3%
Betul	-2.49	-2.14	-2.84	48.0%	52.7%	43.3%
Bhind	9.46	2.19	18.61	40.1%	50.3%	27.8%
Bhopal	0.21	-0.52	1.17	42.2%	49.6%	33.9%
Chhatarpur	-0.80	-2.24	1.06	43.0%	50.5%	34.3%
Chhindwara	-1.30	-1.35	-1.24	46.2%	52.5%	39.7%
Damoh	3.91	0.65	7.47	47.3%	54.6%	39.3%
Datia	13.19	5.94	21.85	55.1%	58.7%	50.9%
Dewas	3.29	0.80	6.04	49.4%	53.3%	45.3%
Dhar	-0.10	-0.33	0.17	49.2%	52.7%	45.6%
Dindori	6.06	3.21	8.97	58.3%	59.6%	57.0%
East Nimar (Khandwa)	0.21	-0.16	0.59	49.1%	54.7%	43.2%
Guna	3.90	0.00	8.48	44.1%	53.0%	34.0%
Gwalior	2.28	0.60	4.66	38.3%	50.2%	24.0%
Harda	2.47	-0.08	5.29	49.4%	54.6%	43.9%
Hoshangabad	-0.30	-0.54	1.35	39.0%	50.9%	25.7%
Indore	1.86	1.24	2.66	45.7%	53.5%	37.4%
Jabalpur	2.52	1.94	3.26	45.0%	53.4%	35.8%
Jhabua	-1.47	-1.83	-1.08	54.5%	55.0%	53.9%
Katni	-0.20	-0.77	0.44	44.9%	52.5%	36.8%
Mandla	0.55	0.54	0.61	54.3%	56.6%	52.0%
Mandsaur	2.02	1.33	2.82	51.4%	56.6%	45.9%
Morena	8.39	2.25	16.23	40.0%	49.5%	28.4%
Narsimhapur	2.55	1.62	3.52	44.3%	55.1%	32.3%
Neemuch	0.88	1.05	0.76	53.6%	57.2%	49.8%
Panna	1.91	-1.82	6.17	45.5%	52.3%	38.0%
Raisen	-0.80	-1.31	-0.20	38.1%	50.3%	24.4%
Rajgarh	3.01	-0.27	6.61	53.7%	56.1%	51.3%
Ratlam	-0.94	-1.25	-0.53	51.3%	55.5%	46.9%
Rewa	6.02	3.11	9.21	46.2%	50.5%	41.7%
Sagar	2.44	1.07	4.05	44.5%	53.0%	34.9%
Satna	-0.49	-1.34	0.53	41.9%	49.0%	34.4%
Sehore	-0.08	-1.70	1.81	45.0%	49.8%	39.7%
Seoni	-0.37	-0.24	-0.46	51.1%	55.0%	47.0%
Shahdol	0.39	-1.08	2.15	49.0%	55.2%	42.6%
Shajapur	4.18	1.37	7.30	52.2%	56.2%	48.0%
Sheopur	1.36	-1.87	5.17	43.4%	50.3%	35.7%
Shivpuri	2.84	-0.54	6.89	48.8%	53.6%	43.1%
Sidhi	-1.65	-3.49	0.43	43.4%	48.6%	38.0%
Tikamgarh	4.30	0.98	8.22	49.5%	53.3%	45.1%
Ujjain	4.31	1.47	7.49	52.4%	57.0%	47.6%
Umaria	-1.62	-2.08	-1.08	44.6%	51.8%	37.1%
Vidisha	-0.38	-0.83	0.18	39.4%	52.6%	24.4%
West Nimar (Khargone)	1.24	0.34	2.26	48.7%	52.9%	44.3%
Madhya Pradesh	**1.69**	**0.06**	**3.55**	**47.1%**	**53.1%**	**40.7%**

Source: Census of India, 1991, 2001

EL 1: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991 & 2001

District	WPR - Rural 1991			WPR - Urban 2001			WPR - Urban 1991		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
Balaghat	51.8%	55.0%	48.7%	33.1%	47.8%	17.9%	30.2%	45.6%	13.7%
Barwani	50.2%	53.9%	46.3%	33.8%	50.5%	16.1%	32.1%	48.1%	14.9%
Betul	51.2%	55.2%	47.0%	27.2%	44.5%	8.3%	27.0%	44.9%	7.2%
Bhind	28.1%	47.3%	4.5%	26.3%	42.6%	6.9%	24.6%	42.5%	2.9%
Bhopal	42.7%	52.3%	31.8%	29.6%	47.1%	10.1%	29.1%	47.1%	9.0%
Chhatarpur	43.6%	53.1%	32.5%	30.5%	45.5%	13.2%	30.2%	45.7%	12.4%
Chhindwara	48.0%	54.7%	41.1%	29.6%	46.2%	11.7%	28.3%	44.4%	10.5%
Damoh	43.0%	54.1%	30.7%	34.2%	47.1%	19.7%	31.6%	45.1%	16.4%
Datia	39.7%	52.0%	25.1%	33.4%	48.6%	16.0%	27.3%	44.7%	7.2%
Dewas	44.6%	51.9%	36.8%	30.8%	47.8%	12.4%	30.8%	48.4%	11.3%
Dhar	48.8%	53.3%	44.1%	33.8%	52.0%	13.0%	32.9%	49.8%	14.0%
Dindori	53.2%	56.8%	49.7%	31.7%	49.4%	13.0%	30.9%	46.6%	13.7%
East Nimar (Khandwa)	49.3%	55.3%	42.9%	29.7%	48.0%	10.2%	28.9%	47.1%	9.3%
Guna	39.2%	52.9%	23.4%	29.4%	46.0%	10.8%	28.3%	45.7%	8.5%
Gwalior	35.6%	50.9%	16.8%	28.7%	46.3%	8.2%	27.1%	45.1%	5.7%
Harda	46.4%	54.8%	37.1%	28.3%	46.1%	8.5%	27.2%	45.2%	7.1%
Hoshangabad	38.8%	52.0%	24.1%	28.2%	46.3%	8.0%	27.3%	45.4%	6.8%
Indore	43.9%	53.6%	33.4%	32.1%	51.5%	10.7%	30.1%	49.6%	8.5%
Jabalpur	43.0%	52.8%	32.6%	31.2%	48.2%	12.1%	28.2%	45.4%	8.7%
Jhabua	56.1%	57.1%	55.0%	32.6%	47.9%	16.2%	32.5%	47.3%	16.4%
Katni	45.6%	53.7%	37.1%	29.9%	48.2%	9.7%	29.0%	47.9%	8.1%
Mandla	52.7%	55.6%	49.8%	30.8%	47.0%	13.7%	29.5%	45.2%	12.8%
Mandsaur	49.7%	55.7%	43.5%	34.6%	51.9%	16.2%	32.3%	49.4%	13.9%
Morena	29.9%	46.9%	8.8%	26.6%	43.3%	6.8%	24.8%	42.7%	2.7%
Narsimhapur	41.4%	53.4%	28.2%	30.8%	48.4%	11.3%	29.2%	46.9%	9.4%
Neemuch	52.8%	56.4%	49.0%	33.6%	51.2%	14.6%	32.5%	49.5%	14.1%
Panna	43.2%	54.2%	31.0%	29.7%	45.1%	12.4%	30.7%	46.4%	12.6%
Raisen	38.7%	51.7%	24.1%	29.7%	46.5%	10.3%	30.0%	46.8%	10.4%
Rajgarh	50.4%	56.5%	43.7%	32.0%	48.1%	14.3%	30.1%	47.2%	11.3%
Ratlam	53.3%	57.8%	48.6%	30.6%	49.3%	10.9%	30.3%	48.6%	10.6%
Rewa	39.1%	46.9%	30.9%	31.2%	44.2%	16.4%	30.0%	43.4%	14.4%
Sagar	41.8%	52.0%	30.2%	34.3%	47.7%	19.3%	32.5%	46.5%	16.6%
Satna	42.4%	50.5%	33.6%	31.9%	47.0%	14.9%	32.1%	47.4%	14.6%
Sehore	44.9%	51.6%	37.4%	28.1%	45.2%	9.0%	29.0%	46.3%	9.5%
Seoni	51.4%	55.3%	47.4%	29.5%	46.3%	11.5%	27.9%	45.0%	9.3%
Shahdol	47.7%	56.4%	38.7%	28.3%	46.6%	8.0%	28.3%	46.3%	7.5%
Shajapur	47.6%	55.0%	39.5%	33.9%	50.7%	15.6%	31.0%	48.1%	12.3%
Sheopur	41.9%	52.6%	29.6%	28.7%	45.5%	9.6%	27.3%	44.5%	7.7%
Shivpuri	45.0%	54.0%	34.5%	28.0%	45.1%	8.5%	28.1%	45.9%	7.2%
Sidhi	43.8%	51.6%	35.5%	28.9%	45.1%	10.0%	31.1%	50.5%	5.9%
Tikamgarh	45.2%	52.5%	36.8%	35.9%	47.3%	23.2%	30.9%	45.3%	14.8%
Ujjain	46.9%	55.7%	37.5%	31.0%	49.0%	11.6%	28.9%	47.4%	8.8%
Umaria	46.7%	54.3%	38.6%	30.2%	46.1%	12.9%	30.2%	46.3%	12.1%
Vidisha	40.0%	53.7%	24.2%	28.6%	46.3%	8.7%	27.7%	45.5%	7.5%
West Nimar (Khargone)	47.4%	52.7%	41.8%	31.4%	49.0%	12.3%	30.1%	47.9%	10.4%
Madhya Pradesh	**45.1%**	**53.3%**	**36.1%**	**30.6%**	**47.6%**	**11.7%**	**29.3%**	**46.6%**	**9.7%**

Source: Census of India, 1991, 2001

TABLE EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

Table EL 2 gives information on the percentage of total, main and marginal workers to the total population for 1991 and 2001. The information is segregated by sex and residence.

Main Workers

Census records a person as a Main workers if he/ she has worked for a major part of the year preceding the enumeration.

Marginal Workers

Census records a person as marginal workers if he/ she has worked anytime during the preceding year, but has not worked for a major part of the year.

	Year	Madhya Pradesh	India
Share of Population	2001		
Main Workers		31.7%	30.5%
Share of India	6.1%		
Marginal Workers		11.1%	8.7%
Share of India	7.5%		
Male Main Workers		44.9%	45.3%
Male Marginal Workers		6.8%	6.6%
Female Main Workers		17.3%	14.7%
Female Marginal Workers		15.8%	11.0%
Rural Main Workers		33.3%	31.0%
Rural Marginal Workers		13.8%	10.9%
Urban Main Workers		27.1%	29.3%
Urban Marginal Workers		3.5%	2.9%

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	49.78	50.25	43.00	32.85	6.78	17.40
Barwani	47.46	48.39	38.90	36.07	8.56	12.32
Betul	46.66	44.17	41.98	29.95	4.68	14.22
Bhind	27.37	36.82	26.38	27.79	0.99	9.03
Bhopal	31.83	32.04	30.13	27.13	1.70	4.91
Chhatarpur	41.02	40.22	34.35	29.94	6.67	10.28
Chhindwara	43.45	42.15	37.43	30.24	6.02	11.91
Damoh	40.94	44.85	35.81	32.14	5.13	12.71
Datia	37.18	50.37	31.40	36.02	5.78	14.35
Dewas	41.04	44.32	36.67	32.76	4.37	11.56
Dhar	46.73	46.63	41.31	34.22	5.42	12.41
Dindori	51.02	57.08	45.29	45.00	5.73	12.08
East Nimar (Khandwa)	43.69	43.90	39.71	36.70	3.98	7.20
Guna	37.04	40.94	31.55	29.79	5.49	11.15
Gwalior	30.23	32.51	28.30	27.11	1.93	5.40
Harda	42.46	44.93	36.69	31.97	5.77	12.96
Hoshangabad	35.33	35.64	32.30	27.05	3.03	8.59
Indore	34.34	36.20	33.09	31.11	1.25	5.09
Jabalpur	34.56	37.08	32.62	28.99	1.94	8.09
Jhabua	54.04	52.57	39.30	35.00	14.74	17.57
Katni	41.88	41.68	36.04	27.74	5.84	13.94
Mandla	51.32	51.87	47.33	35.94	3.99	15.93
Mandsaur	46.21	48.23	41.12	38.42	5.09	9.81
Morena	28.73	37.12	27.33	28.35	1.40	8.77
Narsimhapur	39.57	42.12	36.08	32.36	3.49	9.76
Neemuch	47.12	48.00	43.20	38.86	3.92	9.14
Panna	41.60	43.51	35.31	30.38	6.29	13.13
Raisen	37.38	36.58	33.59	27.43	3.79	9.15
Rajgarh	46.97	49.98	37.06	34.98	9.91	15.00
Ratlam	45.99	45.05	39.71	33.30	6.28	11.75
Rewa	37.75	43.77	33.76	29.68	3.99	14.09
Sagar	39.07	41.51	34.51	31.53	4.56	9.98
Satna	40.35	39.86	35.96	29.66	4.39	10.20
Sehore	42.01	41.94	36.36	28.62	5.65	13.32
Seoni	49.19	48.82	41.41	32.70	7.78	16.12
Shahdol	43.35	43.74	37.56	29.18	5.79	14.56
Shajapur	44.66	48.84	38.33	33.85	6.33	14.99
Sheopur	39.74	41.10	33.47	27.40	6.27	13.70
Shivpuri	42.47	45.31	35.22	35.22	7.25	10.09
Sidhi	43.02	41.37	36.10	29.72	6.92	11.65
Tikamgarh	42.78	47.08	35.09	32.91	7.69	14.17
Ujjain	39.80	44.11	36.31	34.34	3.49	9.77
Umaria	43.92	42.31	37.75	27.63	6.17	14.68
Vidisha	37.50	37.13	33.09	28.45	4.41	8.68
West Nimar (Khargone)	44.77	46.01	40.72	38.53	4.05	7.48
Madhya Pradesh	**41.06**	**42.75**	**36.07**	**31.66**	**4.99**	**11.09**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Male Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	54.12	54.40	53.40	43.22	0.72	11.18
Barwani	53.03	53.00	52.02	46.36	1.01	6.64
Betul	53.24	51.10	52.40	41.90	0.84	9.20
Bhind	46.29	48.48	46.08	42.87	0.21	5.61
Bhopal	48.13	47.61	47.66	42.88	0.47	4.73
Chhatarpur	51.65	49.41	50.80	44.26	0.85	5.15
Chhindwara	52.28	50.93	51.56	43.57	0.72	7.36
Damoh	52.50	53.15	51.74	46.13	0.76	7.02
Datia	50.56	56.50	49.52	49.02	1.04	7.48
Dewas	50.98	51.78	50.39	45.44	0.59	6.34
Dhar	52.87	52.54	52.15	45.73	0.72	6.81
Dindori	55.88	59.09	55.35	50.49	0.53	8.60
East Nimar (Khandwa)	53.05	52.89	52.36	48.43	0.69	4.46
Guna	51.52	51.53	50.84	45.32	0.68	6.21
Gwalior	47.24	47.84	46.86	43.57	0.38	4.27
Harda	52.86	52.78	52.18	46.39	0.68	6.39
Hoshangabad	50.00	49.46	49.43	43.05	0.57	6.41
Indore	50.83	52.07	50.55	47.77	0.28	4.30
Jabalpur	48.51	50.45	48.11	43.34	0.40	7.11
Jhabua	56.22	54.39	53.60	44.16	2.62	10.23
Katni	52.35	51.58	51.56	41.36	0.79	10.22
Mandla	55.02	55.56	54.31	44.50	0.71	11.06
Mandsaur	54.40	55.73	53.76	50.53	0.64	5.20
Morena	45.96	48.21	45.77	43.18	0.19	5.03
Narsimhapur	52.45	54.07	51.87	47.43	0.58	6.64
Neemuch	54.43	55.48	53.81	49.80	0.62	5.68
Panna	53.20	51.38	52.30	43.87	0.90	7.51
Raisen	50.91	49.60	50.18	42.75	0.73	6.85
Rajgarh	54.95	54.68	53.83	46.70	1.12	7.98
Ratlam	54.88	53.63	53.67	47.23	1.21	6.40
Rewa	46.36	49.47	45.45	40.36	0.91	9.11
Sagar	50.38	51.45	49.58	45.49	0.80	5.96
Satna	49.88	48.54	49.06	41.86	0.82	6.68
Sehore	50.66	48.97	49.98	41.43	0.68	7.54
Seoni	54.34	54.10	53.42	44.76	0.92	9.34
Shahdol	54.04	52.96	53.24	42.61	0.80	10.35
Shajapur	53.79	55.16	52.93	48.53	0.86	6.63
Sheopur	51.44	49.57	51.02	43.42	0.42	6.15
Shivpuri	52.74	52.21	52.05	46.95	0.69	5.26
Sidhi	51.55	48.06	50.55	41.97	1.00	6.09
Tikamgarh	51.28	52.26	50.42	46.84	0.86	5.42
Ujjain	52.39	53.86	51.78	47.78	0.61	6.08
Umaria	52.93	50.85	51.81	40.10	1.12	10.75
Vidisha	52.09	51.26	51.21	45.15	0.88	6.11
West Nimar (Khargone)	51.96	52.30	51.37	48.05	0.59	4.25
Madhya Pradesh	**51.56**	**51.62**	**50.82**	**44.86**	**0.74**	**6.76**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Female Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	45.46	46.19	32.63	22.71	12.83	23.48
Barwani	41.68	43.64	25.30	25.49	16.38	18.15
Betul	39.84	37.00	31.20	17.57	8.64	19.43
Bhind	4.16	22.77	2.21	9.61	1.95	13.16
Bhopal	13.50	14.67	10.42	9.56	3.08	5.11
Chhatarpur	28.60	29.65	15.15	13.46	13.45	16.19
Chhindwara	34.19	32.95	22.61	16.27	11.58	16.68
Damoh	28.17	35.64	18.21	16.63	9.96	19.01
Datia	21.38	43.23	10.01	20.88	11.37	22.35
Dewas	30.29	36.33	21.81	19.16	8.48	17.17
Dhar	40.27	40.44	29.91	22.15	10.36	18.29
Dindori	46.08	55.05	35.07	39.47	11.01	15.58
East Nimar (Khandwa)	33.71	34.30	26.21	24.17	7.50	10.13
Guna	20.51	28.99	9.52	12.26	10.99	16.73
Gwalior	9.76	14.42	5.97	7.68	3.79	6.74
Harda	31.09	36.38	19.75	16.27	11.34	20.11
Hoshangabad	18.88	20.24	13.09	9.22	5.79	11.02
Indore	16.14	18.80	13.81	12.86	2.33	5.94
Jabalpur	19.11	22.37	15.47	13.19	3.64	9.18
Jhabua	51.80	50.71	24.67	25.70	27.13	25.01
Katni	30.73	31.16	19.52	13.26	11.21	17.90
Mandla	47.57	48.18	40.27	27.39	7.30	20.79
Mandsaur	37.57	40.39	27.78	25.74	9.79	14.65
Morena	7.40	23.63	4.50	10.32	2.90	13.31
Narsimhapur	25.45	28.97	18.77	15.79	6.68	13.18
Neemuch	39.37	40.13	31.95	27.35	7.42	12.78
Panna	28.67	34.84	16.35	15.51	12.32	19.33
Raisen	21.99	21.79	14.73	10.02	7.26	11.77
Rajgarh	38.32	44.93	18.89	22.40	19.43	22.53
Ratlam	36.62	36.09	24.99	18.78	11.63	17.31
Rewa	28.51	37.72	21.21	18.34	7.30	19.38
Sagar	26.23	30.28	17.40	15.75	8.83	14.53
Satna	29.96	30.49	21.70	16.48	8.26	14.01
Sehore	32.38	34.19	21.19	14.50	11.19	19.69
Seoni	43.90	43.45	29.07	20.42	14.83	23.03
Shahdol	31.97	34.12	20.89	15.15	11.08	18.97
Shajapur	34.72	42.02	22.42	18.02	12.30	24.00
Sheopur	26.45	31.62	13.54	9.46	12.91	22.16
Shivpuri	30.37	37.26	15.38	21.55	14.99	15.71
Sidhi	33.77	34.20	20.43	16.58	13.34	17.62
Tikamgarh	33.02	41.24	17.50	17.20	15.52	24.04
Ujjain	26.24	33.73	19.65	20.04	6.59	13.69
Umaria	34.35	33.27	22.82	14.45	11.53	18.82
Vidisha	20.80	20.98	12.36	9.37	8.44	11.61
West Nimar (Khargone)	37.13	39.39	29.40	28.50	7.73	10.89
Madhya Pradesh	**29.55**	**33.10**	**19.90**	**17.31**	**9.65**	**15.79**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Rural Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	51.84	52.91	44.46	33.79	7.38	19.12
Barwani	50.19	50.88	40.29	36.98	9.90	13.90
Betul	51.15	48.05	45.50	31.32	5.65	16.73
Bhind	28.09	40.10	26.92	29.44	1.17	10.66
Bhopal	42.73	42.23	35.80	29.25	6.93	12.98
Chhatarpur	43.59	42.97	35.75	30.91	7.84	12.06
Chhindwara	48.00	46.22	40.47	31.78	7.53	14.44
Damoh	43.01	47.33	37.20	32.74	5.81	14.59
Datia	39.73	55.13	32.83	38.03	6.90	17.10
Dewas	44.62	49.42	39.13	35.11	5.49	14.31
Dhar	48.81	49.18	42.69	35.04	6.12	14.14
Dindori	51.97	58.31	45.99	45.92	5.98	12.39
East Nimar (Khandwa)	49.32	49.13	44.09	40.16	5.23	8.97
Guna	39.16	44.08	32.51	30.79	6.65	13.29
Gwalior	35.59	38.30	30.97	28.67	4.62	9.63
Harda	46.36	49.44	39.36	33.91	7.00	15.53
Hoshangabad	38.81	38.96	34.67	27.76	4.14	11.20
Indore	43.90	45.72	40.57	34.70	3.33	11.02
Jabalpur	43.04	44.95	39.37	30.39	3.67	14.56
Jhabua	56.08	54.46	40.26	35.58	15.82	18.88
Katni	45.60	44.85	38.35	27.95	7.25	16.90
Mandla	53.67	54.28	49.43	36.92	4.24	17.36
Mandsaur	49.71	51.36	43.67	40.07	6.04	11.29
Morena	29.89	40.02	28.18	29.73	1.71	10.29
Narsimhapur	41.39	44.28	37.41	33.36	3.98	10.92
Neemuch	52.80	53.57	47.92	42.60	4.88	10.97
Panna	43.24	45.51	36.28	31.13	6.96	14.38
Raisen	38.75	38.15	34.44	27.75	4.31	10.40
Rajgarh	50.37	53.75	38.70	36.75	11.67	17.00
Ratlam	53.34	51.31	44.65	36.01	8.69	15.30
Rewa	39.14	46.21	34.69	30.44	4.45	15.77
Sagar	41.77	44.51	36.04	31.98	5.73	12.53
Satna	42.38	41.93	37.28	30.03	5.10	11.90
Sehore	44.87	44.99	38.17	29.67	6.70	15.32
Seoni	51.42	51.06	42.93	33.50	8.49	17.56
Shahdol	47.72	48.96	40.56	30.60	7.16	18.36
Shajapur	47.60	52.25	40.23	35.06	7.37	17.19
Sheopur	41.85	43.42	34.84	27.83	7.01	15.59
Shivpuri	45.05	48.75	36.70	37.44	8.35	11.31
Sidhi	43.84	43.45	36.46	30.46	7.38	12.99
Tikamgarh	45.18	49.49	36.32	33.94	8.86	15.55
Ujjain	46.90	52.40	41.47	38.69	5.43	13.71
Umaria	46.66	44.62	39.70	28.49	6.96	16.13
Vidisha	39.97	39.45	34.64	29.24	5.33	10.21
West Nimar (Khargone)	47.37	48.70	42.71	40.34	4.66	8.36
Madhya Pradesh	**45.05**	**47.11**	**38.66**	**33.30**	**6.39**	**13.81**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Rural Male Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	55.04	55.45	54.29	43.41	0.75	12.04
Barwani	53.93	53.45	52.79	46.08	1.14	7.37
Betul	55.23	52.66	54.25	42.26	0.98	10.40
Bhind	47.27	50.27	47.04	44.29	0.23	5.98
Bhopal	52.29	49.61	51.09	41.71	1.20	7.90
Chhatarpur	53.08	50.49	52.12	44.91	0.96	5.58
Chhindwara	54.72	52.49	53.90	44.19	0.82	8.30
Damoh	54.15	54.55	53.33	46.68	0.82	7.87
Datia	52.03	58.71	50.93	50.15	1.10	8.56
Dewas	51.91	53.31	51.23	46.09	0.68	7.22
Dhar	53.34	52.65	52.54	45.17	0.80	7.48
Dindori	56.34	59.58	55.79	50.85	0.55	8.73
East Nimar (Khandwa)	55.33	54.71	54.49	49.62	0.84	5.09
Guna	52.93	53.01	52.15	46.00	0.78	7.01
Gwalior	50.89	50.19	50.17	44.45	0.72	5.74
Harda	54.83	54.60	54.05	47.52	0.78	7.08
Hoshangabad	52.00	50.86	51.31	43.20	0.69	7.66
Indore	53.56	53.51	53.14	46.51	0.42	7.00
Jabalpur	52.76	53.43	52.19	42.17	0.57	11.26
Jhabua	57.09	55.03	54.29	44.13	2.80	10.90
Katni	53.68	52.51	52.76	40.40	0.92	12.11
Mandla	56.12	56.57	55.46	44.67	0.66	11.90
Mandsaur	55.65	56.61	54.95	50.94	0.70	5.67
Morena	46.92	49.54	46.71	44.15	0.21	5.39
Narsimhapur	53.43	55.15	52.79	48.05	0.64	7.10
Neemuch	56.39	57.17	55.69	50.87	0.70	6.30
Panna	54.24	52.31	53.29	44.43	0.95	7.88
Raisen	51.68	50.32	50.91	42.86	0.77	7.46
Rajgarh	56.54	56.07	55.27	47.37	1.27	8.70
Ratlam	57.84	55.54	56.26	48.09	1.58	7.45
Rewa	46.91	50.53	45.91	40.54	1.00	9.99
Sagar	52.01	52.98	51.09	45.76	0.92	7.22
Satna	50.50	48.96	49.57	41.34	0.93	7.62
Sehore	51.64	49.81	50.89	41.67	0.75	8.14
Seoni	55.35	55.02	54.36	45.07	0.99	9.95
Shahdol	56.43	55.21	55.48	42.61	0.95	12.60
Shajapur	55.03	56.18	54.11	48.94	0.92	7.24
Sheopur	52.61	50.34	52.19	43.58	0.42	6.76
Shivpuri	53.96	53.61	53.20	48.23	0.76	5.38
Sidhi	51.63	48.58	50.57	42.01	1.06	6.57
Tikamgarh	52.49	53.32	51.56	47.77	0.93	5.55
Ujjain	55.67	56.98	54.85	49.63	0.82	7.35
Umaria	54.29	51.79	53.11	40.48	1.18	11.31
Vidisha	53.75	52.61	52.75	45.89	1.00	6.72
West Nimar (Khargone)	52.68	52.93	52.03	48.42	0.65	4.51
Madhya Pradesh	**53.27**	**53.08**	**52.39**	**45.23**	**0.88**	**7.85**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Rural Female Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	48.67	50.45	34.72	24.46	13.95	25.99
Barwani	46.34	48.27	27.41	27.70	18.93	20.57
Betul	46.99	43.32	36.59	20.12	10.40	23.20
Bhind	4.50	27.78	2.18	11.45	2.32	16.33
Bhopal	31.78	33.91	18.29	15.21	13.49	18.70
Chhatarpur	32.50	34.30	16.61	14.79	15.89	19.51
Chhindwara	41.07	39.71	26.59	18.88	14.48	20.83
Damoh	30.75	39.34	19.44	17.30	11.31	22.04
Datia	25.09	50.94	11.30	23.86	13.79	27.08
Dewas	36.80	45.27	26.16	23.39	10.64	21.88
Dhar	44.09	45.59	32.44	24.59	11.65	21.00
Dindori	47.55	57.04	36.07	40.97	11.48	16.07
East Nimar (Khandwa)	42.93	43.17	33.02	30.06	9.91	13.11
Guna	23.42	33.95	10.07	13.54	13.35	20.41
Gwalior	16.77	24.04	7.34	9.73	9.43	14.31
Harda	37.15	43.85	23.38	19.17	13.77	24.68
Hoshangabad	24.10	25.71	16.10	10.57	8.00	15.14
Indore	33.39	37.39	26.90	22.09	6.49	15.30
Jabalpur	32.58	35.80	25.56	17.67	7.02	18.13
Jhabua	55.05	53.88	25.98	26.96	29.07	26.92
Katni	37.11	36.79	23.19	14.84	13.92	21.95
Mandla	51.21	52.02	43.37	29.23	7.84	22.79
Mandsaur	43.46	45.89	31.80	28.75	11.66	17.14
Morena	8.76	28.36	5.21	12.06	3.55	16.30
Narsimhapur	28.23	32.33	20.60	17.22	7.63	15.11
Neemuch	49.03	49.83	39.75	33.99	9.28	15.84
Panna	31.03	38.05	17.41	16.52	13.62	21.53
Raisen	24.11	24.37	15.80	10.65	8.31	13.72
Rajgarh	43.70	51.26	20.83	25.39	22.87	25.87
Ratlam	48.63	46.92	32.50	23.48	16.13	23.44
Rewa	30.92	41.68	22.82	19.86	8.10	21.82
Sagar	30.19	34.87	19.02	16.32	11.17	18.55
Satna	33.63	34.43	24.04	17.97	9.59	16.46
Sehore	37.36	39.69	24.05	16.48	13.31	23.21
Seoni	47.41	47.04	31.25	21.78	16.16	25.26
Shahdol	38.68	42.58	25.07	18.34	13.61	24.24
Shajapur	39.52	48.01	25.13	20.10	14.39	27.91
Sheopur	29.62	35.71	15.13	10.26	14.49	25.45
Shivpuri	34.54	43.07	17.25	24.81	17.29	18.26
Sidhi	35.50	38.01	21.36	18.25	14.14	19.76
Tikamgarh	36.76	45.14	18.76	18.27	18.00	26.87
Ujjain	37.52	47.58	27.17	27.16	10.35	20.42
Umaria	38.65	37.09	25.61	15.91	13.04	21.18
Vidisha	24.17	24.35	13.88	10.15	10.29	14.20
West Nimar (Khargone)	41.76	44.28	32.86	31.87	8.90	12.41
Madhya Pradesh	**36.13**	**40.68**	**23.76**	**20.44**	**12.37**	**20.24**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Urban Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	30.17	33.06	29.10	26.76	1.07	6.30
Barwani	32.13	33.81	31.15	30.73	0.98	3.08
Betul	27.01	27.18	26.58	23.94	0.43	3.24
Bhind	24.56	26.28	24.24	22.48	0.32	3.80
Bhopal	29.10	29.58	28.71	26.62	0.39	2.96
Chhatarpur	30.24	30.47	28.50	26.48	1.74	3.99
Chhindwara	28.30	29.60	27.32	25.51	0.98	4.09
Damoh	31.58	34.16	29.53	29.57	2.05	4.59
Datia	27.27	33.42	25.86	28.86	1.41	4.56
Dewas	30.81	30.80	29.61	26.52	1.20	4.28
Dhar	32.94	33.83	32.13	30.11	0.81	3.72
Dindori	30.88	31.70	30.40	26.18	0.48	5.52
East Nimar (Khandwa)	28.86	29.72	28.17	27.32	0.69	2.40
Guna	28.33	29.36	27.59	26.12	0.74	3.24
Gwalior	27.07	28.70	26.73	26.08	0.34	2.62
Harda	27.22	28.27	26.27	24.79	0.95	3.48
Hoshangabad	27.32	28.22	26.85	25.47	0.47	2.75
Indore	30.14	32.14	29.79	29.58	0.35	2.56
Jabalpur	28.17	31.15	27.54	27.93	0.63	3.22
Jhabua	32.53	32.65	29.24	28.83	3.29	3.82
Katni	28.96	29.86	28.04	26.94	0.92	2.92
Mandla	29.54	30.80	27.89	27.38	1.65	3.42
Mandsaur	32.27	34.57	30.96	31.18	1.31	3.39
Morena	24.76	26.62	24.40	23.39	0.36	3.23
Narsimhapur	29.16	30.76	28.49	27.10	0.67	3.66
Neemuch	32.49	33.58	31.04	29.19	1.45	4.39
Panna	30.67	29.71	28.80	25.23	1.87	4.48
Raisen	30.04	29.68	29.04	26.04	1.00	3.64
Rajgarh	30.14	31.98	28.90	26.55	1.24	5.43
Ratlam	30.29	30.64	29.16	27.08	1.13	3.56
Rewa	30.01	31.20	28.57	25.75	1.44	5.45
Sagar	32.53	34.27	30.79	30.45	1.74	3.82
Satna	32.10	31.93	30.63	28.24	1.47	3.69
Sehore	29.01	28.06	28.14	23.82	0.87	4.24
Seoni	27.90	29.47	26.91	25.80	0.99	3.67
Shahdol	28.33	28.34	27.28	24.97	1.05	3.37
Shajapur	31.03	33.86	29.51	28.55	1.52	5.31
Sheopur	27.27	28.72	25.39	25.08	1.88	3.64
Shivpuri	28.07	28.04	26.94	24.11	1.13	3.93
Sidhi	31.14	28.94	30.88	25.30	0.26	3.64
Tikamgarh	30.95	35.86	29.06	28.13	1.89	7.73
Ujjain	28.94	31.00	28.43	27.47	0.51	3.53
Umaria	30.15	30.23	27.96	23.12	2.19	7.11
Vidisha	27.68	28.61	26.94	25.54	0.74	3.07
West Nimar (Khargone)	30.05	31.35	29.46	28.66	0.59	2.69
Madhya Pradesh	**29.26**	**30.64**	**28.41**	**27.12**	**0.85**	**3.52**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Urban Male Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	45.62	47.78	45.22	42.01	0.40	5.77
Barwani	48.10	50.48	47.80	48.01	0.30	2.47
Betul	44.88	44.46	44.63	40.37	0.25	4.09
Bhind	42.47	42.65	42.34	38.24	0.13	4.41
Bhopal	47.07	47.13	46.79	43.17	0.28	3.96
Chhatarpur	45.66	45.53	45.26	41.94	0.40	3.59
Chhindwara	44.40	46.20	43.99	41.69	0.41	4.51
Damoh	45.14	47.14	44.67	43.80	0.47	3.34
Datia	44.75	48.55	43.95	44.95	0.80	3.60
Dewas	48.36	47.75	48.04	43.73	0.32	4.02
Dhar	49.84	52.02	49.62	48.41	0.22	3.61
Dindori	46.61	49.37	46.33	43.51	0.28	5.86
East Nimar (Khandwa)	47.07	47.98	46.76	45.22	0.31	2.76
Guna	45.70	45.99	45.42	42.79	0.28	3.20
Gwalior	45.05	46.27	44.88	42.99	0.17	3.28
Harda	45.23	46.13	44.97	42.26	0.26	3.87
Hoshangabad	45.44	46.34	45.15	42.74	0.29	3.60
Indore	49.65	51.47	49.42	48.29	0.23	3.18
Jabalpur	45.38	48.23	45.10	44.20	0.28	4.03
Jhabua	47.35	47.87	46.55	44.45	0.80	3.42
Katni	47.85	48.18	47.52	44.85	0.33	3.33
Mandla	45.20	47.04	44.08	43.05	1.12	3.99
Mandsaur	49.43	51.91	49.02	48.79	0.41	3.12
Morena	42.68	43.32	42.57	39.59	0.11	3.73
Narsimhapur	46.91	48.41	46.66	44.16	0.25	4.25
Neemuch	49.46	51.18	49.04	47.08	0.42	4.10
Panna	46.39	45.07	45.86	40.08	0.53	4.99
Raisen	46.82	46.48	46.27	42.30	0.55	4.18
Rajgarh	47.17	48.11	46.77	43.55	0.40	4.56
Ratlam	48.63	49.27	48.19	45.25	0.44	4.02
Rewa	43.41	44.21	42.98	39.51	0.43	4.70
Sagar	46.47	47.70	45.97	44.83	0.50	2.87
Satna	47.44	47.00	47.03	43.82	0.41	3.18
Sehore	46.29	45.18	45.89	40.35	0.40	4.83
Seoni	45.02	46.31	44.73	42.14	0.29	4.17
Shahdol	46.27	46.58	45.94	42.62	0.33	3.96
Shajapur	48.05	50.68	47.50	46.73	0.55	3.95
Sheopur	44.52	45.49	44.09	42.57	0.43	2.92
Shivpuri	45.89	45.09	45.62	40.44	0.27	4.65
Sidhi	50.51	45.08	50.39	41.76	0.12	3.32
Tikamgarh	45.25	47.27	44.74	42.43	0.51	4.84
Ujjain	47.42	48.99	47.14	44.90	0.28	4.09
Umaria	46.31	46.05	45.50	38.18	0.81	7.87
Vidisha	45.48	46.25	45.10	42.39	0.38	3.86
West Nimar (Khargone)	47.92	48.97	47.69	46.09	0.23	2.88
Madhya Pradesh	**46.61**	**47.64**	**46.28**	**43.87**	**0.33**	**3.77**

Census of India, 1991, 2001

EL 2: PERCENTAGE OF TOTAL WORKERS, MAIN WORKERS AND MARGINAL WORKERS TO TOTAL POPULATION BY RESIDENCE AND SEX IN DISTRICTS OF MADHYA PRADESH, 1991, 2001

District	Urban Female Workers					
	Total Workers		Main Workers		Marginal Workers	
	1991	2001	1991	2001	1991	2001
Balaghat	13.69	17.92	11.91	11.08	1.78	6.84
Barwani	14.92	16.10	13.20	12.37	1.72	3.73
Betul	7.22	8.34	6.59	6.02	0.63	2.32
Bhind	2.90	6.85	2.35	3.76	0.55	3.09
Bhopal	8.98	10.05	8.47	8.21	0.51	1.84
Chhatarpur	12.35	13.22	9.05	8.79	3.30	4.43
Chhindwara	10.53	11.66	8.93	8.03	1.60	3.63
Damoh	16.43	19.74	12.61	13.76	3.82	5.98
Datia	7.21	16.02	5.08	10.35	2.13	5.67
Dewas	11.28	12.40	9.10	7.84	2.18	4.56
Dhar	14.00	13.05	12.53	9.21	1.47	3.84
Dindori	13.67	12.99	12.97	7.82	0.70	5.17
East Nimar (Khandwa)	9.31	10.20	8.21	8.19	1.10	2.01
Guna	8.49	10.83	7.23	7.55	1.26	3.28
Gwalior	5.72	8.19	5.19	6.34	0.53	1.85
Harda	7.07	8.45	5.35	5.41	1.72	3.04
Hoshangabad	6.80	7.99	6.13	6.19	0.67	1.80
Indore	8.46	10.73	7.98	8.85	0.48	1.88
Jabalpur	8.72	12.05	7.69	9.75	1.03	2.30
Jhabua	16.41	16.25	10.41	12.01	6.00	4.24
Katni	8.07	9.70	6.50	7.24	1.57	2.46
Mandla	12.79	13.68	10.57	10.86	2.22	2.82
Mandsaur	13.89	16.16	11.61	12.49	2.28	3.67
Morena	2.75	6.78	2.09	4.13	0.66	2.65
Narsimhapur	9.36	11.29	8.22	8.28	1.14	3.01
Neemuch	14.08	14.56	11.52	9.85	2.56	4.71
Panna	12.57	12.38	9.16	8.47	3.41	3.91
Raisen	10.41	10.26	8.88	7.24	1.53	3.02
Rajgarh	11.33	14.34	9.18	7.94	2.15	6.40
Ratlam	10.61	10.90	8.73	7.84	1.88	3.06
Rewa	14.38	16.42	11.77	10.13	2.61	6.29
Sagar	16.59	19.26	13.43	14.39	3.16	4.87
Satna	14.57	14.86	11.90	10.59	2.67	4.27
Sehore	9.45	9.05	8.05	5.47	1.40	3.58
Seoni	9.30	11.45	7.54	8.31	1.76	3.14
Shahdol	7.53	8.00	5.63	5.30	1.90	2.70
Shajapur	12.31	15.61	9.74	8.81	2.57	6.80
Sheopur	7.68	9.63	4.14	5.16	3.54	4.47
Shivpuri	7.16	8.54	5.02	5.43	2.14	3.11
Sidhi	5.86	9.99	5.41	5.97	0.45	4.02
Tikamgarh	14.82	23.18	11.36	12.23	3.46	10.95
Ujjain	8.80	11.57	8.04	8.64	0.76	2.93
Umaria	12.10	12.94	8.36	6.66	3.74	6.28
Vidisha	7.47	8.73	6.33	6.54	1.14	2.19
West Nimar (Khargone)	10.39	12.30	9.40	9.81	0.99	2.49
Madhya Pradesh	**9.70**	**11.70**	**8.25**	**8.46**	**1.45**	**3.24**

Census of India, 1991, 2001

TABLE EL 3: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991

Table EL 3 gives the percentage of main workers employed in primary, secondary and tertiary sector and the farm and non-farm sectors in 1991. Besides this the table also details the percentage main workers employed in different industrial categories.

Primary Sector
Related with agriculture and allied activities and mining and quarrying.

Secondary Sector
Related with construction and all types of manufacturing activities.

Tertiary Sector
Related with all types of services.

Non-Farm Sector
This is employment in all types of activities not based on farming and agriculture, and includes secondary sector, tertiary sector and mining and quarrying from the primary sector.

Classification of Workers
Census classifies workers in nine industrial categories. These are explained below.

Cultivators
For purpose of census a person is working as cultivator if he or she is engaged as employer, single worker or family worker in cultivation of land owned or held from government or held from private person or institutions for payment in money, kind or share. Cultivation includes agriculture operations for all produce except fruit growing, vegetable growing, or keeping of orchards or groves or working of plantations.

Agriculture Labourers
Person working on another persons land for wages in money, kind or share are enumerated as agricultural labourers. An agricultural labourer has no risk in the cultivation and he has no right of lease or contract on land on which he works.

Livestock, Forestry, Fishing, Hunting, and Plantation, Orchards and Allied Activities
Worker involved in any of these activities and activities allied with agriculture but not concerned with agriculture operations.

Household Industry (Manufacturing, Processing, Servicing and Repairs in Household Industry)
Persons working in an industry located at home or within the village in rural areas and only within the precincts of the house where the household lives in urban areas.

Other categories are self explanatory
Mining and Quarrying; Non household Industry; Construction; Trade and Commerce; Transport, Storage and Communications; Other Services.

	Year	Madhya Pradesh	India
Employment Share	1991		
Primary		75.4%	67.5%
Secondary		9.2%	12.0%
Tertiary		15.4%	20.5%
Non-Farm		25.4%	33.1%
As % of Main Workers	1991		
Cultivators		49.5%	38.7%
Agriculture Labourers		23.7%	26.1%

Source: Census of India, 1991

EL 3: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991

District	Employment Share: All				Employment Share: Rural			
	Primary	Secondary	Tertiary	Non-Farm Sector	Primary	Secondary	Tertiary	Non-Farm Sector
Balaghat	83.5%	7.8%	8.6%	17.9	87.2%	7.2%	5.6%	14.0
Barwani	86.8%	3.9%	9.3%	13.2	94.0%	1.8%	4.2%	6.1
Betul	84.8%	4.7%	10.5%	17.5	91.5%	3.1%	5.4%	9.0
Bhind	79.9%	4.3%	15.8%	20.2	89.3%	2.1%	8.6%	10.8
Bhopal	24.9%	24.5%	50.6%	75.5	87.1%	5.9%	7.0%	13.5
Chhatarpur	82.6%	6.0%	11.5%	17.5	90.1%	4.4%	5.5%	10.0
Chhindwara	81.3%	5.4%	13.4%	23.2	89.7%	3.3%	6.9%	12.0
Damoh	63.8%	24.0%	12.1%	36.3	72.8%	20.9%	6.3%	27.3
Datia	78.9%	5.9%	15.2%	21.2	90.0%	3.3%	6.8%	10.1
Dewas	76.6%	10.3%	13.2%	23.5	89.6%	4.2%	6.2%	10.4
Dhar	84.1%	5.9%	10.0%	15.9	90.6%	3.8%	5.6%	9.4
Dindori	93.2%	2.1%	4.7%	6.9	94.4%	1.9%	3.7%	5.6
East Nimar (Khandwa)	76.7%	9.8%	13.5%	23.4	91.3%	3.4%	5.3%	8.8
Guna	79.1%	6.8%	14.1%	21.0	91.5%	3.3%	5.2%	8.6
Gwalior	43.3%	18.0%	38.7%	57.3	88.6%	3.6%	7.8%	12.4
Harda	81.0%	6.4%	12.6%	19.1	91.0%	3.8%	5.2%	9.1
Hoshangabad	66.8%	10.6%	22.6%	33.4	85.4%	6.0%	8.6%	14.8
Indore	34.3%	22.8%	42.9%	65.8	81.7%	8.0%	10.3%	18.5
Jabalpur	47.0%	22.3%	30.7%	53.2	82.7%	10.3%	6.9%	17.4
Jhabua	90.6%	2.7%	6.7%	9.6	95.2%	1.6%	3.2%	5.1
Katni	72.7%	11.9%	15.4%	29.1	85.0%	8.6%	6.5%	16.9
Mandla	87.4%	3.5%	9.1%	12.6	92.4%	2.6%	4.9%	7.6
Mandsaur	81.5%	6.1%	12.4%	18.7	90.9%	3.5%	5.6%	9.3
Morena	79.6%	5.5%	14.9%	20.8	91.4%	2.5%	6.2%	8.9
Narsimhapur	79.8%	6.7%	13.5%	20.3	88.0%	4.6%	7.4%	12.0
Neemuch	78.5%	7.1%	14.4%	21.9	90.9%	4.1%	5.0%	9.5
Panna	86.3%	4.4%	9.3%	15.6	91.6%	3.3%	5.0%	10.1
Raisen	78.6%	9.0%	12.3%	21.9	86.9%	5.7%	7.4%	13.7
Rajgarh	82.4%	6.6%	11.1%	17.7	90.8%	4.2%	4.9%	9.2
Ratlam	74.2%	9.1%	16.7%	25.9	92.1%	3.4%	4.5%	7.9
Rewa	79.7%	6.9%	13.4%	20.5	86.3%	5.1%	8.6%	13.9
Sagar	57.4%	25.6%	17.0%	43.0	73.4%	20.6%	6.0%	27.0
Satna	74.2%	12.7%	13.1%	26.9	83.7%	9.2%	7.1%	17.6
Sehore	81.4%	5.9%	12.6%	18.6	90.4%	3.6%	6.0%	9.6
Seoni	87.3%	3.4%	9.3%	12.7	91.7%	2.4%	5.9%	8.3
Shahdol	84.4%	5.0%	10.6%	21.9	92.3%	3.0%	4.6%	10.7
Shajapur	82.9%	5.8%	11.3%	17.2	90.4%	3.9%	5.7%	9.6
Sheopur	86.8%	3.6%	9.5%	13.2	94.0%	1.8%	4.2%	6.0
Shivpuri	84.6%	3.8%	11.6%	16.5	92.6%	2.1%	5.3%	8.3
Sidhi	87.5%	4.3%	8.2%	14.7	90.6%	3.6%	5.8%	10.8
Tikamgarh	86.4%	4.6%	9.0%	13.7	92.1%	3.3%	4.7%	8.0
Ujjain	65.9%	13.6%	20.5%	34.2	90.3%	4.2%	5.5%	9.8
Umaria	86.9%	4.8%	8.3%	17.1	91.0%	4.0%	5.0%	9.8
Vidisha	79.3%	6.2%	14.6%	22.0	91.1%	3.3%	5.6%	10.3
West Nimar (Khargone)	83.5%	5.3%	11.2%	16.6	90.8%	3.2%	6.0%	9.2
Madhya Pradesh	**75.4%**	**9.2%**	**15.4%**	**25.4**	**89.2%**	**4.9%**	**5.9%**	**11.3**

Source: Census of India, 1991

EL 3: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991

District	Employment Share: Urban				All	All	All
	Primary	Secondary	Tertiary	Non-Farm Sector	Cultivators: Share of Main Workers	Agricultural Labour: Share of Main Workers	Agriculture Allied: Share of Main Workers
Balaghat	30.9%	16.6%	52.4%	74.8	52.8%	27.5%	1.8%
Barwani	34.8%	19.3%	46.0%	65.3	62.7%	23.3%	0.8%
Betul	35.0%	16.9%	48.2%	81.5	56.8%	24.2%	1.5%
Bhind	39.7%	13.9%	46.4%	60.6	66.5%	12.6%	0.6%
Bhopal	5.5%	30.2%	64.3%	94.9	13.6%	9.2%	1.6%
Chhatarpur	43.2%	14.0%	42.8%	56.8	59.6%	20.5%	2.4%
Chhindwara	39.4%	15.6%	44.9%	78.2	50.0%	25.9%	0.9%
Damoh	12.8%	42.0%	45.2%	87.5	36.2%	26.1%	1.4%
Datia	24.0%	19.0%	57.0%	76.2	63.8%	14.0%	0.9%
Dewas	27.2%	33.3%	39.6%	73.0	43.5%	31.8%	1.2%
Dhar	26.8%	24.1%	49.2%	73.3	59.2%	24.1%	0.7%
Dindori	39.9%	12.1%	48.0%	60.9	70.7%	21.6%	0.8%
East Nimar (Khandwa)	16.5%	36.1%	47.5%	83.6	41.5%	33.3%	1.9%
Guna	18.5%	24.0%	57.6%	81.6	58.9%	18.8%	1.3%
Gwalior	12.4%	27.9%	59.8%	87.9	31.8%	9.5%	1.4%
Harda	22.4%	21.7%	55.9%	77.6	40.4%	39.0%	1.6%
Hoshangabad	11.6%	24.1%	64.3%	88.5	34.4%	29.6%	2.6%
Indore	5.9%	31.8%	62.4%	94.2	18.5%	14.8%	0.9%
Jabalpur	8.6%	35.2%	56.2%	91.7	21.7%	23.2%	1.9%
Jhabua	24.7%	18.1%	57.1%	75.3	84.1%	5.9%	0.4%
Katni	14.5%	27.9%	57.6%	86.9	42.4%	27.6%	0.9%
Mandla	23.4%	14.1%	62.6%	76.8	59.2%	27.1%	1.1%
Mandsaur	28.6%	20.7%	50.7%	71.5	59.0%	21.0%	1.3%
Morena	32.8%	17.6%	49.5%	68.2	72.2%	6.4%	0.6%
Narsimhapur	17.7%	22.6%	59.6%	82.4	39.8%	38.9%	1.0%
Neemuch	29.2%	18.9%	51.9%	71.2	59.4%	17.2%	1.6%
Panna	41.2%	13.6%	45.2%	61.6	55.4%	27.0%	2.0%
Raisen	25.8%	30.3%	43.8%	74.3	38.9%	37.6%	1.5%
Rajgarh	26.3%	22.1%	51.7%	73.9	58.1%	21.4%	2.8%
Ratlam	15.5%	27.8%	56.6%	84.5	55.0%	18.1%	1.1%
Rewa	35.2%	19.2%	45.6%	65.0	41.1%	36.9%	1.4%
Sagar	12.0%	39.7%	48.3%	88.1	32.7%	22.7%	1.7%
Satna	27.6%	30.0%	42.4%	72.6	42.3%	29.2%	1.6%
Sehore	26.0%	20.3%	53.7%	74.1	49.8%	30.7%	0.9%
Seoni	19.8%	19.2%	61.0%	80.3	51.9%	33.8%	1.6%
Shahdol	43.8%	15.2%	41.1%	79.2	52.6%	24.8%	0.7%
Shajapur	35.1%	17.8%	47.1%	64.9	50.1%	30.8%	1.9%
Sheopur	28.5%	18.6%	52.9%	71.7	70.8%	14.5%	1.4%
Shivpuri	23.4%	16.7%	59.9%	78.8	70.1%	12.3%	1.1%
Sidhi	34.0%	16.9%	49.1%	82.6	60.0%	24.1%	1.2%
Tikamgarh	51.6%	12.9%	35.5%	48.6	73.5%	11.7%	1.1%
Ujjain	11.6%	34.5%	53.9%	88.7	40.8%	23.8%	1.2%
Umaria	57.5%	10.6%	31.9%	68.8	54.6%	27.0%	1.3%
Vidisha	18.9%	20.9%	60.2%	81.4	43.5%	33.3%	1.2%
West Nimar (Khargone)	23.3%	23.0%	53.7%	76.7	49.7%	32.4%	1.3%
Madhya Pradesh	**19.8%**	**26.6%**	**53.7%**	**82.1**	**49.5%**	**23.7%**	**1.3%**

Source: Census of India, 1991

EL 3: EMPLOYMENT INDICATORS IN DISTRICTS OF MADHYA PRADESH, 1991

District	All	All	All	All	All	All	All
	Mining: Share of Main Workers	Household Manufacturing: Share of Main Workers	Non Household Manufacturing: Share of Main Workers	Construction: Share of Main Workers	Trade And Commerce: Share of Main Workers	Transport etc.: Share of Main Workers	Other Services: Share of Main Workers
Balaghat	1.4%	3.4%	3.7%	0.7%	3.0%	0.7%	5.0%
Barwani	0.0%	1.0%	2.3%	0.7%	3.9%	1.2%	4.2%
Betul	2.4%	1.3%	2.0%	1.4%	3.1%	1.3%	6.1%
Bhind	0.1%	1.1%	2.0%	1.2%	3.9%	1.0%	10.9%
Bhopal	0.4%	1.1%	14.5%	8.8%	15.9%	6.9%	27.8%
Chhatarpur	0.1%	2.9%	1.9%	1.2%	4.1%	1.1%	6.2%
Chhindwara	4.4%	1.7%	2.2%	1.5%	4.2%	1.3%	7.8%
Damoh	0.2%	14.9%	7.6%	1.5%	4.8%	1.4%	5.9%
Datia	0.1%	1.8%	2.5%	1.6%	4.6%	1.0%	9.6%
Dewas	0.1%	1.9%	7.1%	1.3%	4.1%	1.4%	7.6%
Dhar	0.0%	1.0%	3.8%	1.1%	3.6%	1.2%	5.3%
Dindori	0.1%	1.2%	0.6%	0.3%	1.2%	0.2%	3.2%
East Nimar (Khandwa)	0.1%	1.2%	6.8%	1.8%	5.5%	2.0%	6.0%
Guna	0.1%	2.5%	2.6%	1.7%	4.4%	1.1%	8.6%
Gwalior	0.6%	1.8%	11.7%	4.6%	11.0%	3.9%	23.8%
Harda	0.0%	1.9%	2.7%	1.8%	4.9%	1.7%	6.0%
Hoshangabad	0.2%	2.4%	5.1%	3.0%	6.7%	3.7%	12.3%
Indore	0.1%	1.3%	17.5%	4.0%	16.6%	6.3%	19.9%
Jabalpur	0.2%	4.4%	14.8%	3.1%	10.0%	4.4%	16.2%
Jhabua	0.2%	0.9%	0.8%	1.0%	2.2%	0.6%	3.9%
Katni	1.8%	2.6%	8.3%	1.1%	6.1%	3.1%	6.1%
Mandla	0.1%	1.5%	1.3%	0.7%	2.7%	0.7%	5.7%
Mandsaur	0.2%	1.4%	3.2%	1.5%	5.4%	1.4%	5.7%
Morena	0.4%	0.7%	3.1%	1.8%	4.4%	1.9%	8.6%
Narsimhapur	0.1%	3.5%	2.1%	1.1%	4.8%	1.2%	7.5%
Neemuch	0.3%	1.1%	4.4%	1.6%	5.5%	2.3%	6.7%
Panna	1.8%	2.3%	1.3%	0.9%	3.0%	0.7%	5.6%
Raisen	0.6%	2.3%	5.3%	1.4%	4.1%	1.2%	7.0%
Rajgarh	0.1%	2.6%	2.6%	1.4%	4.2%	1.1%	5.7%
Ratlam	0.0%	1.7%	5.4%	2.1%	6.7%	2.7%	7.4%
Rewa	0.2%	3.0%	2.6%	1.3%	3.7%	1.2%	8.5%
Sagar	0.3%	19.9%	3.8%	1.9%	5.6%	2.1%	9.3%
Satna	1.1%	6.1%	5.2%	1.3%	4.9%	1.7%	6.4%
Sehore	0.0%	1.9%	2.5%	1.6%	4.1%	1.4%	7.1%
Seoni	0.0%	1.3%	1.3%	0.8%	3.0%	0.9%	5.4%
Shahdol	6.3%	1.7%	2.3%	1.0%	3.2%	1.1%	6.3%
Shajapur	0.0%	1.9%	2.3%	1.6%	4.4%	1.1%	5.7%
Sheopur	0.1%	0.9%	1.6%	1.1%	3.4%	1.0%	5.1%
Shivpuri	1.0%	1.0%	1.5%	1.3%	3.7%	1.0%	7.0%
Sidhi	2.2%	1.7%	1.5%	1.1%	2.3%	0.7%	5.3%
Tikamgarh	0.1%	2.3%	1.5%	0.8%	2.9%	0.7%	5.3%
Ujjain	0.1%	1.8%	9.3%	2.5%	7.2%	2.5%	10.8%
Umaria	4.0%	2.0%	1.3%	1.5%	2.5%	0.7%	5.1%
Vidisha	1.2%	1.7%	2.8%	1.6%	5.5%	1.4%	7.6%
West Nimar (Khargone)	0.0%	1.3%	2.8%	1.2%	4.0%	1.2%	5.9%
Madhya Pradesh	**0.8%**	**2.8%**	**4.7%**	**1.7%**	**5.2%**	**1.8%**	**8.3%**

Source: Census of India, 1991

EL 4 : NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

Table EL 4 gives the numbers and percentages of total, main, marginal and non-workers for the year 2001. These are segregated by residence and sex.

Main Workers

Census records a person as a Main worker if he/ she has worked for a major part of the year preceding the enumeration.

Marginal Workers

Census records a person as a marginal worker if he/ she has worked anytime during the preceding year, but has not worked for a major part of the year.

Non-Workers

Persons who are not working as marginal or main workers.

Numbers (Nos)

The actual number enumerated in the census

Percentages

The percentage is taken as number of workers over the total population for that category

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Workers						
	Total Workers (Main+Marginal)		Main Workers		Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	726560	50.2%	474993	32.9%	251567	17.4%	719380
Barwani	523096	48.4%	389939	36.1%	133157	12.3%	557943
Betul	615971	44.2%	417646	30.0%	198325	14.2%	778450
Bhind	525495	36.8%	396595	27.8%	128900	9.0%	901456
Bhopal	589490	32.0%	499202	27.1%	90288	4.9%	1250261
Chhatarpur	593112	40.2%	441466	29.9%	151646	10.3%	881521
Chhindwara	779222	42.2%	559050	30.2%	220172	11.9%	1069360
Damoh	485195	44.8%	347723	32.1%	137472	12.7%	596734
Datia	316247	50.4%	226149	36.0%	90098	14.4%	311582
Dewas	579217	44.3%	428109	32.8%	151108	11.6%	727514
Dhar	811705	46.6%	595638	34.2%	216067	12.4%	928872
Dindori	330918	57.1%	260917	45.0%	70001	12.1%	248856
East Nimar (Khandwa)	749860	43.9%	626895	36.7%	122965	7.2%	958067
Guna	681951	40.9%	496244	29.8%	185707	11.1%	983627
Gwalior	529841	32.5%	441803	27.1%	88038	5.4%	1100040
Harda	213034	44.9%	151586	32.0%	61448	13.0%	261140
Hoshangabad	386643	35.6%	293477	27.0%	93166	8.6%	698368
Indore	890961	36.2%	765760	31.1%	125201	5.1%	1570483
Jabalpur	799035	37.1%	624689	29.0%	174346	8.1%	1355749
Jhabua	732960	52.6%	487963	35.0%	244997	17.6%	661385
Katni	443390	41.7%	295073	27.7%	148317	13.9%	620299
Mandla	463641	51.9%	321257	35.9%	142384	15.9%	430267
Mandsaur	570771	48.2%	454612	38.4%	116159	9.8%	612598
Morena	589236	37.1%	450067	28.4%	139169	8.8%	998029
Narsimhapur	403220	42.1%	309808	32.4%	93412	9.8%	554179
Neemuch	348228	48.0%	281932	38.9%	66296	9.1%	377229
Panna	371694	43.5%	259533	30.4%	112161	13.1%	482541
Raisen	409791	36.6%	307259	27.4%	102532	9.2%	710368
Rajgarh	626352	50.0%	438389	35.0%	187963	15.0%	626894
Ratlam	547359	45.0%	404655	33.3%	142704	11.7%	667746
Rewa	863608	43.8%	585601	29.7%	278007	14.1%	1109408
Sagar	839313	41.5%	637546	31.5%	201767	10.0%	1182470
Satna	745213	39.9%	554459	29.7%	190754	10.2%	1124229
Sehore	452390	41.9%	308690	28.6%	143700	13.3%	626380
Seoni	569211	48.8%	381256	32.7%	187955	16.1%	596682
Shahdol	687868	43.7%	458818	29.2%	229050	14.6%	884696
Shajapur	630091	48.8%	436725	33.8%	193366	15.0%	660139
Sheopur	230027	41.1%	153331	27.4%	76696	13.7%	329688
Shivpuri	652718	45.3%	507427	35.2%	145291	10.1%	787964
Sidhi	757408	41.4%	544083	29.7%	213325	11.7%	1073229
Tikamgarh	566468	47.1%	395969	32.9%	170499	14.2%	636692
Ujjain	754308	44.1%	587288	34.3%	167020	9.8%	955811
Umaria	218229	42.3%	142523	27.6%	75706	14.7%	297621
Vidisha	450975	37.1%	345555	28.4%	105420	8.7%	763784
West Nimar (Khargone)	704463	46.0%	589868	38.5%	114595	7.5%	826523
Madhya Pradesh	**25756485**	**42.7%**	**19077568**	**31.7%**	**6678917**	**11.1%**	**34496254**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Male Workers						
	Male Workers (Main+Marginal)		Male Main Workers		Male Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	388930	54.4%	309013	43.2%	79917	11.2%	326073
Barwani	290376	53.0%	254006	46.4%	36370	6.6%	257461
Betul	362554	51.1%	297277	41.9%	65277	9.2%	346970
Bhind	378181	48.5%	334430	42.9%	43751	5.6%	401941
Bhopal	461931	47.6%	416035	42.9%	45896	4.7%	508209
Chhatarpur	389746	49.4%	349133	44.3%	40613	5.1%	399124
Chhindwara	481976	50.9%	412308	43.6%	69668	7.4%	464432
Damoh	302284	53.2%	262380	46.1%	39904	7.0%	266435
Datia	190876	56.5%	165602	49.0%	25274	7.5%	146976
Dewas	350191	51.8%	307326	45.4%	42865	6.3%	326107
Dhar	468082	52.5%	407395	45.7%	60687	6.8%	422771
Dindori	171928	59.1%	146914	50.5%	25014	8.6%	119015
East Nimar (Khandwa)	466724	52.9%	427345	48.4%	39379	4.5%	415664
Guna	455214	51.5%	400370	45.3%	54844	6.2%	428268
Gwalior	422036	47.8%	384419	43.6%	37617	4.3%	460222
Harda	130427	52.8%	114645	46.4%	15782	6.4%	116702
Hoshangabad	282795	49.5%	246173	43.1%	36622	6.4%	289001
Indore	670133	52.1%	614764	47.8%	55369	4.3%	616801
Jabalpur	569665	50.4%	489415	43.3%	80250	7.1%	559587
Jhabua	381826	54.4%	310015	44.2%	71811	10.2%	320152
Katni	282699	51.6%	226682	41.4%	56017	10.2%	265378
Mandla	248082	55.6%	198699	44.5%	49383	11.1%	198405
Mandsaur	337128	55.7%	305692	50.5%	31436	5.2%	267814
Morena	420048	48.2%	376175	43.2%	43873	5.0%	451195
Narsimhapur	271098	54.1%	237791	47.4%	33307	6.6%	230309
Neemuch	206363	55.5%	185234	49.8%	21129	5.7%	165609
Panna	230148	51.4%	196504	43.9%	33644	7.5%	217775
Raisen	295500	49.6%	254682	42.8%	40818	6.9%	300230
Rajgarh	354797	54.7%	303013	46.7%	51784	8.0%	294053
Ratlam	332704	53.6%	292979	47.2%	39725	6.4%	287691
Rewa	502694	49.5%	410159	40.4%	92535	9.1%	513483
Sagar	552051	51.4%	488122	45.5%	63929	6.0%	520981
Satna	471117	48.5%	406282	41.9%	64835	6.7%	499400
Sehore	276858	49.0%	234248	41.4%	42610	7.5%	288530
Seoni	318165	54.1%	263248	44.8%	54917	9.3%	269974
Shahdol	425442	53.0%	342316	42.6%	83126	10.3%	377930
Shajapur	369233	55.2%	324881	48.5%	44352	6.6%	300186
Sheopur	146531	49.6%	128353	43.4%	18178	6.1%	149099
Shivpuri	404832	52.2%	364063	46.9%	40769	5.3%	370651
Sidhi	455278	48.1%	397594	42.0%	57684	6.1%	491976
Tikamgarh	333353	52.3%	298742	46.8%	34611	5.4%	304489
Ujjain	474794	53.9%	421230	47.8%	53564	6.1%	406752
Umaria	134758	50.9%	106270	40.1%	28488	10.8%	130240
Vidisha	331977	51.3%	292383	45.1%	39594	6.1%	315655
West Nimar (Khargone)	410762	52.3%	377382	48.1%	33380	4.3%	374563
Madhya Pradesh	**16202287**	**51.6%**	**14081689**	**44.9%**	**2120598**	**6.8%**	**15184279**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Female Workers						
	Female Workers (Main+Marginal)		Female Main Workers		Female Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	337630	46.2%	165980	22.7%	171650	23.5%	393307
Barwani	232720	43.6%	135933	25.5%	96787	18.2%	300482
Betul	253417	37.0%	120369	17.6%	133048	19.4%	431480
Bhind	147314	22.8%	62165	9.6%	85149	13.2%	499515
Bhopal	127559	14.7%	83167	9.6%	44392	5.1%	742052
Chhatarpur	203366	29.7%	92333	13.5%	111033	16.2%	482397
Chhindwara	297246	32.9%	146742	16.3%	150504	16.7%	604928
Damoh	182911	35.6%	85343	16.6%	97568	19.0%	330299
Datia	125371	43.2%	60547	20.9%	64824	22.4%	164606
Dewas	229026	36.3%	120783	19.2%	108243	17.2%	401407
Dhar	343623	40.4%	188243	22.2%	155380	18.3%	506101
Dindori	158990	55.0%	114003	39.5%	44987	15.6%	129841
East Nimar (Khandwa)	283136	34.3%	199550	24.2%	83586	10.1%	542403
Guna	226737	29.0%	95874	12.3%	130863	16.7%	555359
Gwalior	107805	14.4%	57384	7.7%	50421	6.7%	639818
Harda	82607	36.4%	36941	16.3%	45666	20.1%	144438
Hoshangabad	103848	20.2%	47304	9.2%	56544	11.0%	409367
Indore	220828	18.8%	150996	12.9%	69832	5.9%	953682
Jabalpur	229370	22.4%	135274	13.2%	94096	9.2%	796162
Jhabua	351134	50.7%	177948	25.7%	173186	25.0%	341233
Katni	160691	31.2%	68391	13.3%	92300	17.9%	354921
Mandla	215559	48.2%	122558	27.4%	93001	20.8%	231862
Mandsaur	233643	40.4%	148920	25.7%	84723	14.6%	344784
Morena	169188	23.6%	73892	10.3%	95296	13.3%	546834
Narsimhapur	132122	29.0%	72017	15.8%	60105	13.2%	323870
Neemuch	141865	40.1%	96698	27.4%	45167	12.8%	211620
Panna	141546	34.8%	63029	15.5%	78517	19.3%	264766
Raisen	114291	21.8%	52577	10.0%	61714	11.8%	410138
Rajgarh	271555	44.9%	135376	22.4%	136179	22.5%	332841
Ratlam	214655	36.1%	111676	18.8%	102979	17.3%	380055
Rewa	360914	37.7%	175442	18.3%	185472	19.4%	595925
Sagar	287262	30.3%	149424	15.7%	137838	14.5%	661489
Satna	274096	30.5%	148177	16.5%	125919	14.0%	624829
Sehore	175532	34.2%	74442	14.5%	101090	19.7%	337850
Seoni	251046	43.5%	118008	20.4%	133038	23.0%	326708
Shahdol	262426	34.1%	116502	15.1%	145924	19.0%	506766
Shajapur	260858	42.0%	111844	18.0%	149014	24.0%	359953
Sheopur	83496	31.6%	24978	9.5%	58518	22.2%	180589
Shivpuri	247886	37.3%	143364	21.6%	104522	15.7%	417313
Sidhi	302130	34.2%	146489	16.6%	155641	17.6%	581253
Tikamgarh	233115	41.2%	97227	17.2%	135888	24.0%	332203
Ujjain	279514	33.7%	166058	20.0%	113456	13.7%	549059
Umaria	83471	33.3%	36253	14.5%	47218	18.8%	167381
Vidisha	118998	21.0%	53172	9.4%	65826	11.6%	448129
West Nimar (Khargone)	293701	39.4%	212486	28.5%	81215	10.9%	451960
Madhya Pradesh	**9554198**	**33.1%**	**4995879**	**17.3%**	**4558319**	**15.8%**	**19311975**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Rural Workers						
	Rural Workers (Main+Marginal)		Rural Main Workers		Rural Marginal Workers		Non-Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	662449	52.9%	423096	33.8%	239353	19.1%	589557
Barwani	469681	50.9%	341394	37.0%	128287	13.9%	453382
Betul	545600	48.0%	355672	31.3%	189928	16.7%	589942
Bhind	436628	40.1%	320585	29.4%	116043	10.7%	652170
Bhopal	151043	42.2%	104609	29.2%	46434	13.0%	206622
Chhatarpur	494313	43.0%	355592	30.9%	138721	12.1%	656041
Chhindwara	645380	46.2%	443706	31.8%	201674	14.4%	750968
Damoh	415396	47.3%	287311	32.7%	128085	14.6%	462196
Datia	270285	55.1%	186464	38.0%	83821	17.1%	219999
Dewas	469115	49.4%	333294	35.1%	135821	14.3%	480140
Dhar	714197	49.2%	508841	35.0%	205356	14.1%	738145
Dindori	322402	58.3%	253885	45.9%	68517	12.4%	230510
East Nimar (Khandwa)	613095	49.1%	501181	40.2%	111914	9.0%	634743
Guna	577801	44.1%	403571	30.8%	174230	13.3%	733042
Gwalior	247651	38.3%	185383	28.7%	62268	9.6%	398899
Harda	184454	49.4%	126522	33.9%	57932	15.5%	188633
Hoshangabad	291884	39.0%	207955	27.8%	83929	11.2%	457365
Indore	336085	45.7%	255095	34.7%	80990	11.0%	399087
Jabalpur	416230	45.0%	281403	30.4%	134827	14.6%	509714
Jhabua	693449	54.5%	453071	35.6%	240378	18.9%	579867
Katni	376218	44.9%	234459	28.0%	141759	16.9%	462513
Mandla	435304	54.3%	296066	36.9%	139238	17.4%	366599
Mandsaur	494498	51.4%	385816	40.1%	108682	11.3%	468238
Morena	497879	40.0%	369806	29.7%	128073	10.3%	746186
Narsimhapur	356122	44.3%	268318	33.4%	87804	10.9%	448174
Neemuch	280309	53.6%	222894	42.6%	57415	11.0%	242895
Panna	339562	45.5%	232245	31.1%	107317	14.4%	406529
Raisen	348393	38.1%	253394	27.7%	94999	10.4%	564926
Rajgarh	556900	53.7%	380741	36.7%	176159	17.0%	479196
Ratlam	434578	51.3%	304962	36.0%	129616	15.3%	412448
Rewa	763624	46.2%	503073	30.4%	260551	15.8%	888882
Sagar	636644	44.5%	457453	32.0%	179191	12.5%	793777
Satna	622102	41.9%	445586	30.0%	176516	11.9%	861750
Sehore	397832	45.0%	262368	29.7%	135464	15.3%	486513
Seoni	533643	51.1%	350119	33.5%	183524	17.6%	511553
Shahdol	575034	49.0%	359383	30.6%	215651	18.4%	599395
Shajapur	549045	52.2%	368396	35.1%	180649	17.2%	501845
Sheopur	204586	43.4%	131118	27.8%	73468	15.6%	266549
Shivpuri	585505	48.8%	449639	37.4%	135866	11.3%	615505
Sidhi	681748	43.4%	477943	30.5%	203805	13.0%	887487
Tikamgarh	490302	49.5%	336228	33.9%	154074	15.6%	500483
Ujjain	548918	52.4%	405291	38.7%	143627	13.7%	498640
Umaria	193164	44.6%	123354	28.5%	69810	16.1%	239775
Vidisha	376504	39.4%	279080	29.2%	97424	10.2%	577976
West Nimar (Khargone)	630048	48.7%	521847	40.3%	108201	8.4%	663581
Madhya Pradesh	**20865600**	**47.1%**	**14748209**	**33.3%**	**6117391**	**13.8%**	**23422437**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Male Rural Workers						
	Male Rural Workers (Main+Marginal)		Male Rural Main Workers		Male Rural Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	341951	55.5%	267710	43.4%	74241	12.0%	274721
Barwani	249291	53.4%	214933	46.1%	34358	7.4%	217151
Betul	302517	52.7%	242760	42.3%	59757	10.4%	271959
Bhind	299909	50.3%	264241	44.3%	35668	6.0%	296677
Bhopal	94018	49.6%	79039	41.7%	14979	7.9%	95486
Chhatarpur	310933	50.5%	276542	44.9%	34391	5.6%	304845
Chhindwara	373485	52.5%	314416	44.2%	59069	8.3%	338103
Damoh	251607	54.6%	215298	46.7%	36309	7.9%	209617
Datia	155170	58.7%	132541	50.1%	22629	8.6%	109141
Dewas	261335	53.3%	225943	46.1%	35392	7.2%	228883
Dhar	388129	52.7%	332988	45.2%	55141	7.5%	349031
Dindori	165106	59.6%	140902	50.8%	24204	8.7%	112019
East Nimar (Khandwa)	352641	54.7%	319827	49.6%	32814	5.1%	291957
Guna	369225	53.0%	320365	46.0%	48860	7.0%	327267
Gwalior	176998	50.2%	156773	44.5%	20225	5.7%	175670
Harda	105898	54.6%	92174	47.5%	13724	7.1%	88061
Hoshangabad	200704	50.9%	170461	43.2%	30243	7.7%	193938
Indore	203091	53.5%	176535	46.5%	26556	7.0%	176421
Jabalpur	256799	53.4%	202702	42.2%	54097	11.3%	223824
Jhabua	351781	55.0%	282119	44.1%	69662	10.9%	287439
Katni	225919	52.5%	173825	40.4%	52094	12.1%	204302
Mandla	225873	56.6%	178372	44.7%	47501	11.9%	173401
Mandsaur	278150	56.6%	250261	50.9%	27889	5.7%	213167
Morena	339321	49.5%	302395	44.2%	36926	5.4%	345556
Narsimhapur	232217	55.1%	202325	48.0%	29892	7.1%	188867
Neemuch	152589	57.2%	135764	50.9%	16825	6.3%	114308
Panna	204302	52.3%	173519	44.4%	30783	7.9%	186268
Raisen	243943	50.3%	207759	42.9%	36184	7.5%	240851
Rajgarh	300208	56.1%	253597	47.4%	46611	8.7%	235172
Ratlam	239400	55.5%	207294	48.1%	32106	7.4%	191629
Rewa	427362	50.5%	342843	40.5%	84519	10.0%	418430
Sagar	403190	53.0%	348224	45.8%	54966	7.2%	357780
Satna	374862	49.0%	316549	41.3%	58313	7.6%	390859
Sehore	230632	49.8%	192961	41.7%	37671	8.1%	232429
Seoni	289275	55.0%	236956	45.1%	52319	10.0%	236475
Shahdol	327669	55.2%	252862	42.6%	74807	12.6%	265788
Shajapur	306102	56.2%	266665	48.9%	39437	7.2%	238748
Sheopur	125077	50.3%	108277	43.6%	16800	6.8%	123387
Shivpuri	347168	53.6%	312341	48.2%	34827	5.4%	300438
Sidhi	391623	48.6%	338634	42.0%	52989	6.6%	414434
Tikamgarh	280503	53.3%	251305	47.8%	29198	5.6%	245539
Ujjain	306273	57.0%	266776	49.6%	39497	7.3%	231270
Umaria	114821	51.8%	89739	40.5%	25082	11.3%	106883
Vidisha	268186	52.6%	233912	45.9%	34274	6.7%	241522
West Nimar (Khargone)	350373	52.9%	320549	48.4%	29824	4.5%	311641
Madhya Pradesh	**12195626**	**53.1%**	**10391973**	**45.2%**	**1803653**	**7.8%**	**10781354**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Rural Female Workers						
	Rural Female Workers (Main+Marginal)		Rural Female Main Workers		Rural Female Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	320498	50.4%	155386	24.5%	165112	26.0%	314836
Barwani	220390	48.3%	126461	27.7%	93929	20.6%	236231
Betul	243083	43.3%	112912	20.1%	130171	23.2%	317983
Bhind	136719	27.8%	56344	11.4%	80375	16.3%	355493
Bhopal	57025	33.9%	25570	15.2%	31455	18.7%	111136
Chhatarpur	183380	34.3%	79050	14.8%	104330	19.5%	351196
Chhindwara	271895	39.7%	129290	18.9%	142605	20.8%	412865
Damoh	163789	39.3%	72013	17.3%	91776	22.0%	252579
Datia	115115	50.9%	53923	23.9%	61192	27.1%	110858
Dewas	207780	45.3%	107351	23.4%	100429	21.9%	251257
Dhar	326068	45.6%	175853	24.6%	150215	21.0%	389114
Dindori	157296	57.0%	112983	41.0%	44313	16.1%	118491
East Nimar (Khandwa)	260454	43.2%	181354	30.1%	79100	13.1%	342786
Guna	208576	34.0%	83206	13.5%	125370	20.4%	405775
Gwalior	70653	24.0%	28610	9.7%	42043	14.3%	223229
Harda	78556	43.9%	34348	19.2%	44208	24.7%	100572
Hoshangabad	91180	25.7%	37494	10.6%	53686	15.1%	263427
Indore	132994	37.4%	78560	22.1%	54434	15.3%	222666
Jabalpur	159431	35.8%	78701	17.7%	80730	18.1%	285890
Jhabua	341668	53.9%	170952	27.0%	170716	26.9%	292428
Katni	150299	36.8%	60634	14.8%	89665	21.9%	258211
Mandla	209431	52.0%	117694	29.2%	91737	22.8%	193198
Mandsaur	216348	45.9%	135555	28.8%	80793	17.1%	255071
Morena	158558	28.4%	67411	12.1%	91147	16.3%	400630
Narsimhapur	123905	32.3%	65993	17.2%	57912	15.1%	259307
Neemuch	127720	49.8%	87130	34.0%	40590	15.8%	128587
Panna	135260	38.0%	58726	16.5%	76534	21.5%	220261
Raisen	104450	24.4%	45635	10.6%	58815	13.7%	324075
Rajgarh	256692	51.3%	127144	25.4%	129548	25.9%	244024
Ratlam	195178	46.9%	97668	23.5%	97510	23.4%	220819
Rewa	336262	41.7%	160230	19.9%	176032	21.8%	470452
Sagar	233454	34.9%	109229	16.3%	124225	18.6%	435997
Satna	247240	34.4%	129037	18.0%	118203	16.5%	470891
Sehore	167200	39.7%	69407	16.5%	97793	23.2%	254084
Seoni	244368	47.0%	113163	21.8%	131205	25.3%	275078
Shahdol	247365	42.6%	106521	18.3%	140844	24.2%	333607
Shajapur	242943	48.0%	101731	20.1%	141212	27.9%	263097
Sheopur	79509	35.7%	22841	10.3%	56668	25.4%	143162
Shivpuri	238337	43.1%	137298	24.8%	101039	18.3%	315067
Sidhi	290125	38.0%	139309	18.3%	150816	19.8%	473053
Tikamgarh	209799	45.1%	84923	18.3%	124876	26.9%	254944
Ujjain	242645	47.6%	138515	27.2%	104130	20.4%	267370
Umaria	78343	37.1%	33615	15.9%	44728	21.2%	132892
Vidisha	108318	24.4%	45168	10.2%	63150	14.2%	336454
West Nimar (Khargone)	279675	44.3%	201298	31.9%	78377	12.4%	351940
Madhya Pradesh	**8669974**	**40.7%**	**4356236**	**20.4%**	**4313738**	**20.2%**	**12641083**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Urban Workers						
	Urban Workers (Main+Marginal)		Urban Main Workers		Urban Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	64111	33.1%	51897	26.8%	12214	6.3%	129823
Barwani	53415	33.8%	48545	30.7%	4870	3.1%	104561
Betul	70371	27.2%	61974	23.9%	8397	3.2%	188508
Bhind	88867	26.3%	76010	22.5%	12857	3.8%	249286
Bhopal	438447	29.6%	394593	26.6%	43854	3.0%	1043639
Chhatarpur	98799	30.5%	85874	26.5%	12925	4.0%	225480
Chhindwara	133842	29.6%	115344	25.5%	18498	4.1%	318392
Damoh	69799	34.2%	60412	29.6%	9387	4.6%	134538
Datia	45962	33.4%	39685	28.9%	6277	4.6%	91583
Dewas	110102	30.8%	94815	26.5%	15287	4.3%	247374
Dhar	97508	33.8%	86797	30.1%	10711	3.7%	190727
Dindori	8516	31.7%	7032	26.2%	1484	5.5%	18346
East Nimar (Khandwa)	136765	29.7%	125714	27.3%	11051	2.4%	323324
Guna	104150	29.4%	92673	26.1%	11477	3.2%	250585
Gwalior	282190	28.7%	256420	26.1%	25770	2.6%	701141
Harda	28580	28.3%	25064	24.8%	3516	3.5%	72507
Hoshangabad	94759	28.2%	85522	25.5%	9237	2.8%	241003
Indore	554876	32.1%	510665	29.6%	44211	2.6%	1171396
Jabalpur	382805	31.2%	343286	27.9%	39519	3.2%	846035
Jhabua	39511	32.6%	34892	28.8%	4619	3.8%	81518
Katni	67172	29.9%	60614	26.9%	6558	2.9%	157786
Mandla	28337	30.8%	25191	27.4%	3146	3.4%	63668
Mandsaur	76273	34.6%	68796	31.2%	7477	3.4%	144360
Morena	91357	26.6%	80261	23.4%	11096	3.2%	251843
Narsimhapur	47098	30.8%	41490	27.1%	5608	3.7%	106005
Neemuch	67919	33.6%	59038	29.2%	8881	4.4%	134334
Panna	32132	29.7%	27288	25.2%	4844	4.5%	76012
Raisen	61398	29.7%	53865	26.0%	7533	3.6%	145442
Rajgarh	69452	32.0%	57648	26.5%	11804	5.4%	147698
Ratlam	112781	30.6%	99693	27.1%	13088	3.6%	255298
Rewa	99984	31.2%	82528	25.7%	17456	5.4%	220526
Sagar	202669	34.3%	180093	30.5%	22576	3.8%	388693
Satna	123111	31.9%	108873	28.2%	14238	3.7%	262479
Sehore	54558	28.1%	46322	23.8%	8236	4.2%	139867
Seoni	35568	29.5%	31137	25.8%	4431	3.7%	85129
Shahdol	112834	28.3%	99435	25.0%	13399	3.4%	285301
Shajapur	81046	33.9%	68329	28.5%	12717	5.3%	158294
Sheopur	25441	28.7%	22213	25.1%	3228	3.6%	63139
Shivpuri	67213	28.0%	57788	24.1%	9425	3.9%	172459
Sidhi	75660	28.9%	66140	25.3%	9520	3.6%	185742
Tikamgarh	76166	35.9%	59741	28.1%	16425	7.7%	136209
Ujjain	205390	31.0%	181997	27.5%	23393	3.5%	457171
Umaria	25065	30.2%	19169	23.1%	5896	7.1%	57846
Vidisha	74471	28.6%	66475	25.5%	7996	3.1%	185808
West Nimar (Khargone)	74415	31.4%	68021	28.7%	6394	2.7%	162942
Madhya Pradesh	**4890885**	**30.6%**	**4329359**	**27.1%**	**561526**	**3.5%**	**11073817**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Urban Male Workers						
	Urban Male Workers (Main+Marginal)		Urban Male Main Workers		Urban Male Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	46979	47.8%	41303	42.0%	5676	5.8%	51352
Barwani	41085	50.5%	39073	48.0%	2012	2.5%	40310
Betul	60037	44.5%	54517	40.4%	5520	4.1%	75011
Bhind	78272	42.6%	70189	38.2%	8083	4.4%	105264
Bhopal	367913	47.1%	336996	43.2%	30917	4.0%	412723
Chhatarpur	78813	45.5%	72591	41.9%	6222	3.6%	94279
Chhindwara	108491	46.2%	97892	41.7%	10599	4.5%	126329
Damoh	50677	47.1%	47082	43.8%	3595	3.3%	56818
Datia	35706	48.6%	33061	45.0%	2645	3.6%	37835
Dewas	88856	47.8%	81383	43.7%	7473	4.0%	97224
Dhar	79953	52.0%	74407	48.4%	5546	3.6%	73740
Dindori	6822	49.4%	6012	43.5%	810	5.9%	6996
East Nimar (Khandwa)	114083	48.0%	107518	45.2%	6565	2.8%	123707
Guna	85989	46.0%	80005	42.8%	5984	3.2%	101001
Gwalior	245038	46.3%	227646	43.0%	17392	3.3%	284552
Harda	24529	46.1%	22471	42.3%	2058	3.9%	28641
Hoshangabad	82091	46.3%	75712	42.7%	6379	3.6%	95063
Indore	467042	51.5%	438229	48.3%	28813	3.2%	440380
Jabalpur	312866	48.2%	286713	44.2%	26153	4.0%	335763
Jhabua	30045	47.9%	27896	44.5%	2149	3.4%	32713
Katni	56780	48.2%	52857	44.8%	3923	3.3%	61076
Mandla	22209	47.0%	20327	43.1%	1882	4.0%	25004
Mandsaur	58978	51.9%	55431	48.8%	3547	3.1%	54647
Morena	80727	43.3%	73780	39.6%	6947	3.7%	105639
Narsimhapur	38881	48.4%	35466	44.2%	3415	4.3%	41442
Neemuch	53774	51.2%	49470	47.1%	4304	4.1%	51301
Panna	25846	45.1%	22985	40.1%	2861	5.0%	31507
Raisen	51557	46.5%	46923	42.3%	4634	4.2%	59379
Rajgarh	54589	48.1%	49416	43.5%	5173	4.6%	58881
Ratlam	93304	49.3%	85685	45.2%	7619	4.0%	96062
Rewa	75332	44.2%	67316	39.5%	8016	4.7%	95053
Sagar	148861	47.7%	139898	44.8%	8963	2.9%	163201
Satna	96255	47.0%	89733	43.8%	6522	3.2%	108541
Sehore	46226	45.2%	41287	40.3%	4939	4.8%	56101
Seoni	28890	46.3%	26292	42.1%	2598	4.2%	33499
Shahdol	97773	46.6%	89454	42.6%	8319	4.0%	112142
Shajapur	63131	50.7%	58216	46.7%	4915	3.9%	61438
Sheopur	21454	45.5%	20076	42.6%	1378	2.9%	25712
Shivpuri	57664	45.1%	51722	40.4%	5942	4.6%	70213
Sidhi	63655	45.1%	58960	41.8%	4695	3.3%	77542
Tikamgarh	52850	47.3%	47437	42.4%	5413	4.8%	58950
Ujjain	168521	49.0%	154454	44.9%	14067	4.1%	175482
Umaria	19937	46.1%	16531	38.2%	3406	7.9%	23357
Vidisha	63791	46.3%	58471	42.4%	5320	3.9%	74133
West Nimar (Khargone)	60389	49.0%	56833	46.1%	3556	2.9%	62922
Madhya Pradesh	**4006661**	**47.6%**	**3689716**	**43.9%**	**316945**	**3.8%**	**4402925**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 4: NUMBERS AND PERCENTAGE OF TOTAL, MAIN, MARGINAL AND NON-WORKERS BY RURAL AND URBAN AND MALE AND FEMALE IN DISTRICTS OF MADHYA PRADESH, 2001

District	Urban Female Workers						
	Urban Female Workers (Main+Marginal)		Urban Female Main Workers		Urban Female Marginal Workers		Non Workers
	Nos	%	Nos	%	Nos	%	Nos
Balaghat	17132	17.9%	10594	11.1%	6538	6.8%	78471
Barwani	12330	16.1%	9472	12.4%	2858	3.7%	64251
Betul	10334	8.3%	7457	6.0%	2877	2.3%	113497
Bhind	10595	6.9%	5821	3.8%	4774	3.1%	144022
Bhopal	70534	10.1%	57597	8.2%	12937	1.8%	630916
Chhatarpur	19986	13.2%	13283	8.8%	6703	4.4%	131201
Chhindwara	25351	11.7%	17452	8.0%	7899	3.6%	192063
Damoh	19122	19.7%	13330	13.8%	5792	6.0%	77720
Datia	10256	16.0%	6624	10.3%	3632	5.7%	53748
Dewas	21246	12.4%	13432	7.8%	7814	4.6%	150150
Dhar	17555	13.0%	12390	9.2%	5165	3.8%	116987
Dindori	1694	13.0%	1020	7.8%	674	5.2%	11350
East Nimar (Khandwa)	22682	10.2%	18196	8.2%	4486	2.0%	199617
Guna	18161	10.8%	12668	7.6%	5493	3.3%	149584
Gwalior	37152	8.2%	28774	6.3%	8378	1.8%	416589
Harda	4051	8.5%	2593	5.4%	1458	3.0%	43866
Hoshangabad	12668	8.0%	9810	6.2%	2858	1.8%	145940
Indore	87834	10.7%	72436	8.8%	15398	1.9%	731016
Jabalpur	69939	12.1%	56573	9.8%	13366	2.3%	510272
Jhabua	9466	16.2%	6996	12.0%	2470	4.2%	48805
Katni	10392	9.7%	7757	7.2%	2635	2.5%	96710
Mandla	6128	13.7%	4864	10.9%	1264	2.8%	38664
Mandsaur	17295	16.2%	13365	12.5%	3930	3.7%	89713
Morena	10630	6.8%	6481	4.1%	4149	2.6%	146204
Narsimhapur	8217	11.3%	6024	8.3%	2193	3.0%	64563
Neemuch	14145	14.6%	9568	9.8%	4577	4.7%	83033
Panna	6286	12.4%	4303	8.5%	1983	3.9%	44505
Raisen	9841	10.3%	6942	7.2%	2899	3.0%	86063
Rajgarh	14863	14.3%	8232	7.9%	6631	6.4%	88817
Ratlam	19477	10.9%	14008	7.8%	5469	3.1%	159236
Rewa	24652	16.4%	15212	10.1%	9440	6.3%	125473
Sagar	53808	19.3%	40195	14.4%	13613	4.9%	225492
Satna	26856	14.9%	19140	10.6%	7716	4.3%	153938
Sehore	8332	9.0%	5035	5.5%	3297	3.6%	83766
Seoni	6678	11.5%	4845	8.3%	1833	3.1%	51630
Shahdol	15061	8.0%	9981	5.3%	5080	2.7%	173159
Shajapur	17915	15.6%	10113	8.8%	7802	6.8%	96856
Sheopur	3987	9.6%	2137	5.2%	1850	4.5%	37427
Shivpuri	9549	8.5%	6066	5.4%	3483	3.1%	102246
Sidhi	12005	10.0%	7180	6.0%	4825	4.0%	108200
Tikamgarh	23316	23.2%	12304	12.2%	11012	10.9%	77259
Ujjain	36869	11.6%	27543	8.6%	9326	2.9%	281689
Umaria	5128	12.9%	2638	6.7%	2490	6.3%	34489
Vidisha	10680	8.7%	8004	6.5%	2676	2.2%	111675
West Nimar (Khargone)	14026	12.3%	11188	9.8%	2838	2.5%	100020
Madhya Pradesh	**884224**	**11.7%**	**639643**	**8.5%**	**244581**	**3.2%**	**6670892**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

Table EL 5 gives the number of workers and the sector share of employment of main and marginal workers in 2001. Cultivators per 100 hectare of cultivable land are also calculated in the table.

Cultivators

For purpose of census a person is working as cultivator if he or she is engaged as employer, single worker or family worker in cultivation of land owned or held from government or held from private person or institutions for payment in money, kind or share. Cultivation includes agriculture operations for all produce except fruit growing, vegetable growing, or keeping orchards or groves or working of plantations.

Agriculture Labourers

Person working on another persons land for wages in money, kind or share are enumerated as agricultural labourers. An agricultural labourer has no risk in the cultivation and he has no right of lease or contract on land on which he works.

Household Industry (Manufacturing, Processing, Servicing and Repairs in Household Industry)

Persons working in an industry located at home or within the village in rural areas and only within the precincts of the house where the household lives in urban areas.

Other Workers

All other workers not classified in the above categories and who are working are classified here. These include manufacturing outside households, construction, all types of services etc.

Cultivators per 100 hectare of cultivable land

Total number of cultivators in an area divided by the total cultivable land in that area in 100 hectares.

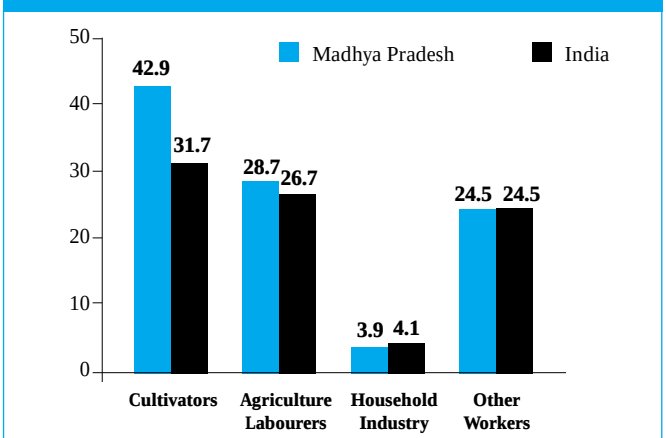
Numbers

The total number of workers in a particular employment classification.

Percentages

This denotes workers in this particular category divided by the total number of workers

Share of Workers in Different Categories to Total Workers 2001: MP and India



EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Workers (Main + Marginal)									
	Total Workers (Main+Marginal)	Cultivators		Cultivators per 100 Hectares Hectares of Cultivable Land	Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Land	Nos	%	Nos	%	Nos	%
Balaghat	726560	287752	39.6%	87	282489	38.9%	30561	4.2%	125758	17.3%
Barwani	523096	296571	56.7%	119	145826	27.9%	6409	1.2%	74290	14.2%
Betul	615971	258482	42.0%	50	231435	37.6%	10513	1.7%	115541	18.8%
Bhind	525495	282154	53.7%	80	98114	18.7%	11042	2.1%	134185	25.5%
Bhopal	589490	70506	12.0%	42	65025	11.0%	10938	1.9%	443021	75.2%
Chhatarpur	593112	325847	54.9%	61	121007	20.4%	26210	4.4%	120048	20.2%
Chhindwara	779222	305562	39.2%	53	274442	35.2%	11915	1.5%	187303	24.0%
Damoh	485195	135623	28.0%	40	144022	29.7%	111978	23.1%	93572	19.3%
Datia	316247	196728	62.2%	94	50538	16.0%	6256	2.0%	62725	19.8%
Dewas	579217	241715	41.7%	64	204559	35.3%	8767	1.5%	124176	21.4%
Dhar	811705	423040	52.1%	80	240563	29.6%	9841	1.2%	138261	17.0%
Dindori	330918	202843	61.3%	64	96288	29.1%	6158	1.9%	25629	7.7%
East Nimar (Khandwa)	749860	270724	36.1%	59	294538	39.3%	12886	1.7%	171712	22.9%
Guna	681951	341184	50.0%	47	191709	28.1%	19650	2.9%	129408	19.0%
Gwalior	529841	142987	27.0%	58	70764	13.4%	15529	2.9%	300561	56.7%
Harda	213034	84644	39.7%	47	86570	40.6%	3767	1.8%	38053	17.9%
Hoshangabad	386643	110612	28.6%	33	134450	34.8%	9342	2.4%	132239	34.2%
Indore	890961	149046	16.7%	57	133103	14.9%	29781	3.3%	579031	65.0%
Jabalpur	799035	120224	15.0%	36	200852	25.1%	76560	9.6%	401399	50.2%
Jhabua	732960	537242	73.3%	135	102101	13.9%	7009	1.0%	86608	11.8%
Katni	443390	138541	31.2%	50	141638	31.9%	40429	9.1%	122782	27.7%
Mandla	463641	203695	43.9%	77	191960	41.4%	7257	1.6%	60729	13.1%
Mandsaur	570771	293500	51.4%	78	163723	28.7%	7511	1.3%	106037	18.6%
Morena	589236	335299	56.9%	116	68011	11.5%	10548	1.8%	175378	29.8%
Narsimhapur	403220	136802	33.9%	42	173007	42.9%	15049	3.7%	78362	19.4%
Neemuch	348228	176851	50.8%	86	85548	24.6%	4745	1.4%	81084	23.3%
Panna	371694	178233	48.0%	54	115199	31.0%	12758	3.4%	65504	17.6%
Raisen	409791	139626	34.1%	31	155450	37.9%	18589	4.5%	96126	23.5%
Rajgarh	626352	340264	54.3%	77	172634	27.6%	11833	1.9%	101621	16.2%
Ratlam	547359	254675	46.5%	72	154545	28.2%	9184	1.7%	128955	23.6%
Rewa	863608	374785	43.4%	88	301399	34.9%	40849	4.7%	146575	17.0%
Sagar	839313	223277	26.6%	39	216008	25.7%	204805	24.4%	195223	23.3%
Satna	745213	254509	34.2%	58	237174	31.8%	65616	8.8%	187914	25.2%
Sehore	452390	203907	45.1%	52	163725	36.2%	7062	1.6%	77696	17.2%
Seoni	569211	235977	41.5%	51	237352	41.7%	8606	1.5%	87276	15.3%
Shahdol	687868	268774	39.1%	52	237501	34.5%	17776	2.6%	163817	23.8%
Shajapur	630091	310165	49.2%	67	201501	32.0%	9703	1.5%	108722	17.3%
Sheopur	230027	123555	53.7%	60	63105	27.4%	2882	1.3%	40485	17.6%
Shivpuri	652718	425280	65.2%	78	115792	17.7%	8704	1.3%	102942	15.8%
Sidhi	757408	385176	50.9%	78	237517	31.4%	18351	2.4%	116364	15.4%
Tikamgarh	566468	366452	64.7%	118	95407	16.8%	18581	3.3%	86028	15.2%
Ujjain	754308	320461	42.5%	65	190788	25.3%	16117	2.1%	226942	30.1%
Umaria	218229	87019	39.9%	55	80730	37.0%	6790	3.1%	43690	20.0%
Vidisha	450975	169585	37.6%	31	167265	37.1%	10567	2.3%	103558	23.0%
West Nimar (Khargone)	704463	328606	46.6%	74	245504	34.8%	10643	1.5%	119710	17.0%
Madhya Pradesh	**25756485**	**11058500**	**42.9%**	**64**	**7380878**	**28.7%**	**1010067**	**3.9%**	**6307040**	**24.5%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Workers (Main + Marginal)								
	Total Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	388930	154890	39.8%	119059	30.6%	14115	3.6%	100866	25.9%
Barwani	290376	160400	55.2%	65747	22.6%	3994	1.4%	60235	20.7%
Betul	362554	161960	44.7%	95984	26.5%	6961	1.9%	97649	26.9%
Bhind	378181	222980	59.0%	58124	15.4%	5589	1.5%	91488	24.2%
Bhopal	461931	47720	10.3%	34067	7.4%	6588	1.4%	373556	80.9%
Chhatarpur	389746	219261	56.3%	55485	14.2%	13294	3.4%	101706	26.1%
Chhindwara	481976	195483	40.6%	120086	24.9%	8325	1.7%	158082	32.8%
Damoh	302284	104075	34.4%	82342	27.2%	39983	13.2%	75884	25.1%
Datia	190876	116404	61.0%	22851	12.0%	3188	1.7%	48433	25.4%
Dewas	350191	142633	40.7%	93237	26.6%	5797	1.7%	108524	31.0%
Dhar	468082	237786	50.8%	105806	22.6%	6524	1.4%	117966	25.2%
Dindori	171928	107811	62.7%	41145	23.9%	3560	2.1%	19412	11.3%
East Nimar (Khandwa)	466724	168516	36.1%	140943	30.2%	8515	1.8%	148750	31.9%
Guna	455214	242483	53.3%	91620	20.1%	10303	2.3%	110808	24.3%
Gwalior	422036	110691	26.2%	36912	8.7%	8360	2.0%	266073	63.0%
Harda	130427	52212	40.0%	42086	32.3%	2543	1.9%	33586	25.8%
Hoshangabad	282795	88900	31.4%	74798	26.4%	6081	2.2%	113016	40.0%
Indore	670133	90699	13.5%	64498	9.6%	20668	3.1%	494268	73.8%
Jabalpur	569665	87214	15.3%	105675	18.6%	36506	6.4%	340270	59.7%
Jhabua	381826	279228	73.1%	37680	9.9%	4083	1.1%	60835	15.9%
Katni	282699	95728	33.9%	66430	23.5%	18482	6.5%	102059	36.1%
Mandla	248082	115410	46.5%	80745	32.5%	4380	1.8%	47547	19.2%
Mandsaur	337128	169166	50.2%	71171	21.1%	5135	1.5%	91656	27.2%
Morena	420048	258872	61.6%	40429	9.6%	5112	1.2%	115635	27.5%
Narsimhapur	271098	104178	38.4%	92635	34.2%	9395	3.5%	64890	23.9%
Neemuch	206363	95206	46.1%	36977	17.9%	2991	1.4%	71189	34.5%
Panna	230148	118238	51.4%	54460	23.7%	7104	3.1%	50346	21.9%
Raisen	295500	113486	38.4%	92097	31.2%	8727	3.0%	81190	27.5%
Rajgarh	354797	190127	53.6%	70113	19.8%	7416	2.1%	87141	24.6%
Ratlam	332704	153967	46.3%	61487	18.5%	6393	1.9%	110857	33.3%
Rewa	502694	208699	41.5%	146344	29.1%	23038	4.6%	124613	24.8%
Sagar	552051	175763	31.8%	131421	23.8%	77294	14.0%	167573	30.4%
Satna	471117	167378	35.5%	117244	24.9%	28440	6.0%	158055	33.5%
Sehore	276858	128025	46.2%	76852	27.8%	4825	1.7%	67156	24.3%
Seoni	318165	139188	43.7%	101751	32.0%	5644	1.8%	71582	22.5%
Shahdol	425442	174099	40.9%	101400	23.8%	11132	2.6%	138811	32.6%
Shajapur	369233	178845	48.4%	89085	24.1%	6160	1.7%	95143	25.8%
Sheopur	146531	83245	56.8%	29009	19.8%	1622	1.1%	32655	22.3%
Shivpuri	404832	259191	64.0%	52168	12.9%	5353	1.3%	88120	21.8%
Sidhi	455278	230311	50.6%	111103	24.4%	12103	2.7%	101761	22.4%
Tikamgarh	333353	217992	65.4%	37807	11.3%	9041	2.7%	68513	20.6%
Ujjain	474794	186046	39.2%	85347	18.0%	9595	2.0%	193806	40.8%
Umaria	134758	57899	43.0%	36488	27.1%	4090	3.0%	36281	26.9%
Vidisha	331977	138486	41.7%	98964	29.8%	5752	1.7%	88775	26.7%
West Nimar (Khargone)	410762	184230	44.9%	116315	28.3%	7168	1.7%	103049	25.1%
Madhya Pradesh	**16202287**	**6935121**	**42.8%**	**3485987**	**21.5%**	**501369**	**3.1%**	**5279810**	**32.6%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Female Workers (Main + Marginal)								
	Female Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	337630	132862	39.4%	163430	48.4%	16446	4.9%	24892	7.4%
Barwani	232720	136171	58.5%	80079	34.4%	2415	1.0%	14055	6.0%
Betul	253417	96522	38.1%	135451	53.4%	3552	1.4%	17892	7.1%
Bhind	147314	59174	40.2%	39990	27.1%	5453	3.7%	42697	29.0%
Bhopal	127559	22786	17.9%	30958	24.3%	4350	3.4%	69465	54.5%
Chhatarpur	203366	106586	52.4%	65522	32.2%	12916	6.4%	18342	9.0%
Chhindwara	297246	110079	37.0%	154356	51.9%	3590	1.2%	29221	9.8%
Damoh	182911	31548	17.2%	61680	33.7%	71995	39.4%	17688	9.7%
Datia	125371	80324	64.1%	27687	22.1%	3068	2.4%	14292	11.4%
Dewas	229026	99082	43.3%	111322	48.6%	2970	1.3%	15652	6.8%
Dhar	343623	185254	53.9%	134757	39.2%	3317	1.0%	20295	5.9%
Dindori	158990	95032	59.8%	55143	34.7%	2598	1.6%	6217	3.9%
East Nimar (Khandwa)	283136	102208	36.1%	153595	54.2%	4371	1.5%	22962	8.1%
Guna	226737	98701	43.5%	100089	44.1%	9347	4.1%	18600	8.2%
Gwalior	107805	32296	30.0%	33852	31.4%	7169	6.6%	34488	32.0%
Harda	82607	32432	39.3%	44484	53.9%	1224	1.5%	4467	5.4%
Hoshangabad	103848	21712	20.9%	59652	57.4%	3261	3.1%	19223	18.5%
Indore	220828	58347	26.4%	68605	31.1%	9113	4.1%	84763	38.4%
Jabalpur	229370	33010	14.4%	95177	41.5%	40054	17.5%	61129	26.7%
Jhabua	351134	258014	73.5%	64421	18.3%	2926	0.8%	25773	7.3%
Katni	160691	42813	26.6%	75208	46.8%	21947	13.7%	20723	12.9%
Mandla	215559	88285	41.0%	111215	51.6%	2877	1.3%	13182	6.1%
Mandsaur	233643	124334	53.2%	92552	39.6%	2376	1.0%	14381	6.2%
Morena	169188	76427	45.2%	27582	16.3%	5436	3.2%	59743	35.3%
Narsimhapur	132122	32624	24.7%	80372	60.8%	5654	4.3%	13472	10.2%
Neemuch	141865	81645	57.6%	48571	34.2%	1754	1.2%	9895	7.0%
Panna	141546	59995	42.4%	60739	42.9%	5654	4.0%	15158	10.7%
Raisen	114291	26140	22.9%	63353	55.4%	9862	8.6%	14936	13.1%
Rajgarh	271555	150137	55.3%	102521	37.8%	4417	1.6%	14480	5.3%
Ratlam	214655	100708	46.9%	93058	43.4%	2791	1.3%	18098	8.4%
Rewa	360914	166086	46.0%	155055	43.0%	17811	4.9%	21962	6.1%
Sagar	287262	47514	16.5%	84587	29.4%	127511	44.4%	27650	9.6%
Satna	274096	87131	31.8%	119930	43.8%	37176	13.6%	29859	10.9%
Sehore	175532	75882	43.2%	86873	49.5%	2237	1.3%	10540	6.0%
Seoni	251046	96789	38.6%	135601	54.0%	2962	1.2%	15694	6.3%
Shahdol	262426	94675	36.1%	136101	51.9%	6644	2.5%	25006	9.5%
Shajapur	260858	131320	50.3%	112416	43.1%	3543	1.4%	13579	5.2%
Sheopur	83496	40310	48.3%	34096	40.8%	1260	1.5%	7830	9.4%
Shivpuri	247886	166089	67.0%	63624	25.7%	3351	1.4%	14822	6.0%
Sidhi	302130	154865	51.3%	126414	41.8%	6248	2.1%	14603	4.8%
Tikamgarh	233115	148460	63.7%	57600	24.7%	9540	4.1%	17515	7.5%
Ujjain	279514	134415	48.1%	105441	37.7%	6522	2.3%	33136	11.9%
Umaria	83471	29120	34.9%	44242	53.0%	2700	3.2%	7409	8.9%
Vidisha	118998	31099	26.1%	68301	57.4%	4815	4.0%	14783	12.4%
West Nimar (Khargone)	293701	144376	49.2%	129189	44.0%	3475	1.2%	16661	5.7%
Madhya Pradesh	**9554198**	**4123379**	**43.2%**	**3894891**	**40.8%**	**508698**	**5.3%**	**1027230**	**10.8%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Rural Workers (Main + Marginal)								
	Rural Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	662449	280728	42.4%	274464	41.4%	28604	4.3%	78653	11.9%
Barwani	469681	292167	62.2%	136743	29.1%	4255	0.9%	36516	7.8%
Betul	545600	254360	46.6%	227293	41.7%	8489	1.6%	55458	10.2%
Bhind	436628	264428	60.6%	89059	20.4%	7825	1.8%	75316	17.2%
Bhopal	151043	65823	43.6%	60544	40.1%	1863	1.2%	22813	15.1%
Chhatarpur	494313	306864	62.1%	111155	22.5%	19764	4.0%	56530	11.4%
Chhindwara	645380	296694	46.0%	258731	40.1%	7834	1.2%	82121	12.7%
Damoh	415396	131857	31.7%	141790	34.1%	90790	21.9%	50959	12.3%
Datia	270285	190276	70.4%	48533	18.0%	3847	1.4%	27629	10.2%
Dewas	469115	231720	49.4%	189425	40.4%	5535	1.2%	42435	9.0%
Dhar	714197	414724	58.1%	229593	32.1%	7446	1.0%	62434	8.7%
Dindori	322402	202162	62.7%	95452	29.6%	5621	1.7%	19167	5.9%
East Nimar (Khandwa)	613095	265413	43.3%	282837	46.1%	7308	1.2%	57537	9.4%
Guna	577801	331647	57.4%	188112	32.6%	9041	1.6%	49001	8.5%
Gwalior	247651	133312	53.8%	66150	26.7%	3507	1.4%	44682	18.0%
Harda	184454	82520	44.7%	84451	45.8%	2582	1.4%	14901	8.1%
Hoshangabad	291884	106888	36.6%	132317	45.3%	6037	2.1%	46642	16.0%
Indore	336085	139461	41.5%	123920	36.9%	6075	1.8%	66629	19.8%
Jabalpur	416230	114873	27.6%	193682	46.5%	37472	9.0%	70203	16.9%
Jhabua	693449	531614	76.7%	101067	14.6%	4657	0.7%	56111	8.1%
Katni	376218	136384	36.3%	140158	37.3%	37209	9.9%	62467	16.6%
Mandla	435304	202275	46.5%	189742	43.6%	6467	1.5%	36820	8.5%
Mandsaur	494498	282267	57.1%	156001	31.5%	4695	0.9%	51535	10.4%
Morena	497879	323869	65.0%	64665	13.0%	7443	1.5%	101902	20.5%
Narsimhapur	356122	134209	37.7%	170706	47.9%	10573	3.0%	40634	11.4%
Neemuch	280309	167724	59.8%	78712	28.1%	2756	1.0%	31117	11.1%
Panna	339562	174309	51.3%	111758	32.9%	10959	3.2%	42536	12.5%
Raisen	348393	134498	38.6%	150906	43.3%	13374	3.8%	49615	14.2%
Rajgarh	556900	332115	59.6%	166368	29.9%	8795	1.6%	49622	8.9%
Ratlam	434578	245494	56.5%	149175	34.3%	4552	1.0%	35357	8.1%
Rewa	763624	362206	47.4%	288740	37.8%	29787	3.9%	82891	10.9%
Sagar	636644	213172	33.5%	211497	33.2%	140560	22.1%	71415	11.2%
Satna	622102	244563	39.3%	229935	37.0%	50518	8.1%	97086	15.6%
Sehore	397832	199706	50.2%	159613	40.1%	4912	1.2%	33601	8.4%
Seoni	533643	234483	43.9%	235904	44.2%	6953	1.3%	56303	10.6%
Shahdol	575034	262798	45.7%	232063	40.4%	13880	2.4%	66293	11.5%
Shajapur	549045	296841	54.1%	191390	34.9%	7649	1.4%	53165	9.7%
Sheopur	204586	120386	58.8%	61654	30.1%	2131	1.0%	20415	10.0%
Shivpuri	585505	418618	71.5%	112786	19.3%	6689	1.1%	47412	8.1%
Sidhi	681748	374919	55.0%	231440	33.9%	16356	2.4%	59033	8.7%
Tikamgarh	490302	343469	70.1%	87345	17.8%	12026	2.5%	47462	9.7%
Ujjain	548918	309086	56.3%	183564	33.4%	7058	1.3%	49210	9.0%
Umaria	193164	84545	43.8%	76672	39.7%	5361	2.8%	26586	13.8%
Vidisha	376504	163674	43.5%	164341	43.6%	7116	1.9%	41373	11.0%
West Nimar (Khargone)	630048	325263	51.6%	236245	37.5%	7419	1.2%	61121	9.7%
Madhya Pradesh	**20865600**	**10724404**	**51.4%**	**7116698**	**34.1%**	**693790**	**3.3%**	**2330708**	**11.2%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Rural Male Workers (Main + Marginal)								
	Male Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	341951	150810	44.1%	115476	33.8%	13030	3.8%	62635	18.3%
Barwani	249291	157198	63.1%	61557	24.7%	2548	1.0%	27988	11.2%
Betul	302517	158765	52.5%	93887	31.0%	5522	1.8%	44343	14.7%
Bhind	299909	206846	69.0%	51400	17.1%	3205	1.1%	38458	12.8%
Bhopal	94018	43599	46.4%	31197	33.2%	1226	1.3%	17996	19.1%
Chhatarpur	310933	205299	66.0%	50047	16.1%	10159	3.3%	45428	14.6%
Chhindwara	373485	188511	50.5%	111729	29.9%	5534	1.5%	67711	18.1%
Damoh	251607	100797	40.1%	80862	32.1%	31840	12.7%	38108	15.1%
Datia	155170	111592	71.9%	21744	14.0%	2101	1.4%	19733	12.7%
Dewas	261335	135157	51.7%	85711	32.8%	3509	1.3%	36958	14.1%
Dhar	388129	231588	59.7%	100240	25.8%	4833	1.2%	51468	13.3%
Dindori	165106	107234	64.9%	40708	24.7%	3204	1.9%	13960	8.5%
East Nimar (Khandwa)	352641	164235	46.6%	135004	38.3%	4876	1.4%	48526	13.8%
Guna	369225	234997	63.6%	89566	24.3%	5032	1.4%	39630	10.7%
Gwalior	176998	102186	57.7%	34217	19.3%	2104	1.2%	38491	21.7%
Harda	105898	50426	47.6%	40962	38.7%	1796	1.7%	12714	12.0%
Hoshangabad	200704	85466	42.6%	73531	36.6%	4034	2.0%	37673	18.8%
Indore	203091	83161	40.9%	59797	29.4%	3812	1.9%	56321	27.7%
Jabalpur	256799	82435	32.1%	101363	39.5%	16706	6.5%	56295	21.9%
Jhabua	351781	276139	78.5%	37228	10.6%	2573	0.7%	35841	10.2%
Katni	225919	93953	41.6%	65639	29.1%	16773	7.4%	49554	21.9%
Mandla	225873	114409	50.7%	79503	35.2%	3853	1.7%	28108	12.4%
Mandsaur	278150	162685	58.5%	67775	24.4%	3228	1.2%	44462	16.0%
Morena	339321	249107	73.4%	37916	11.2%	3224	1.0%	49074	14.5%
Narsimhapur	232217	101823	43.8%	91283	39.3%	6628	2.9%	32483	14.0%
Neemuch	152589	90034	59.0%	34319	22.5%	1676	1.1%	26560	17.4%
Panna	204302	115023	56.3%	52478	25.7%	6061	3.0%	30740	15.0%
Raisen	243943	108832	44.6%	89041	36.5%	6369	2.6%	39701	16.3%
Rajgarh	300208	184733	61.5%	67488	22.5%	5580	1.9%	42407	14.1%
Ratlam	239400	147944	61.8%	59210	24.7%	3111	1.3%	29135	12.2%
Rewa	427362	200406	46.9%	139975	32.8%	17286	4.0%	69695	16.3%
Sagar	403190	166887	41.4%	128213	31.8%	50816	12.6%	57274	14.2%
Satna	374862	160213	42.7%	113558	30.3%	21770	5.8%	79321	21.2%
Sehore	230632	124527	54.0%	74244	32.2%	3390	1.5%	28471	12.3%
Seoni	289275	138160	47.8%	101049	34.9%	4497	1.6%	45569	15.8%
Shahdol	327669	169142	51.6%	98217	30.0%	8569	2.6%	51741	15.8%
Shajapur	306102	170007	55.5%	84738	27.7%	4882	1.6%	46475	15.2%
Sheopur	125077	80481	64.3%	28450	22.7%	1216	1.0%	14930	11.9%
Shivpuri	347168	254240	73.2%	50712	14.6%	4141	1.2%	38075	11.0%
Sidhi	391623	223526	57.1%	107723	27.5%	10741	2.7%	49633	12.7%
Tikamgarh	280503	203580	72.6%	34572	12.3%	6418	2.3%	35933	12.8%
Ujjain	306273	178354	58.2%	81999	26.8%	4431	1.4%	41489	13.5%
Umaria	114821	56069	48.8%	34408	30.0%	3132	2.7%	21212	18.5%
Vidisha	268186	133071	49.6%	96915	36.1%	3899	1.5%	34301	12.8%
West Nimar (Khargone)	350373	181570	51.8%	111613	31.9%	4951	1.4%	52239	14.9%
Madhya Pradesh	**12195626**	**6685217**	**54.8%**	**3347264**	**27.4%**	**334286**	**2.7%**	**1828859**	**15.0%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Rural Female Workers (Main + Marginal)								
	Female Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	320498	129918	40.5%	158988	49.6%	15574	4.9%	16018	5.0%
Barwani	220390	134969	61.2%	75186	34.1%	1707	0.8%	8528	3.9%
Betul	243083	95595	39.3%	133406	54.9%	2967	1.2%	11115	4.6%
Bhind	136719	57582	42.1%	37659	27.5%	4620	3.4%	36858	27.0%
Bhopal	57025	22224	39.0%	29347	51.5%	637	1.1%	4817	8.4%
Chhatarpur	183380	101565	55.4%	61108	33.3%	9605	5.2%	11102	6.1%
Chhindwara	271895	108183	39.8%	147002	54.1%	2300	0.8%	14410	5.3%
Damoh	163789	31060	19.0%	60928	37.2%	58950	36.0%	12851	7.8%
Datia	115115	78684	68.4%	26789	23.3%	1746	1.5%	7896	6.9%
Dewas	207780	96563	46.5%	103714	49.9%	2026	1.0%	5477	2.6%
Dhar	326068	183136	56.2%	129353	39.7%	2613	0.8%	10966	3.4%
Dindori	157296	94928	60.3%	54744	34.8%	2417	1.5%	5207	3.3%
East Nimar (Khandwa)	260454	101178	38.8%	147833	56.8%	2432	0.9%	9011	3.5%
Guna	208576	96650	46.3%	98546	47.2%	4009	1.9%	9371	4.5%
Gwalior	70653	31126	44.1%	31933	45.2%	1403	2.0%	6191	8.8%
Harda	78556	32094	40.9%	43489	55.4%	786	1.0%	2187	2.8%
Hoshangabad	91180	21422	23.5%	58786	64.5%	2003	2.2%	8969	9.8%
Indore	132994	56300	42.3%	64123	48.2%	2263	1.7%	10308	7.8%
Jabalpur	159431	32438	20.3%	92319	57.9%	20766	13.0%	13908	8.7%
Jhabua	341668	255475	74.8%	63839	18.7%	2084	0.6%	20270	5.9%
Katni	150299	42431	28.2%	74519	49.6%	20436	13.6%	12913	8.6%
Mandla	209431	87866	42.0%	110239	52.6%	2614	1.2%	8712	4.2%
Mandsaur	216348	119582	55.3%	88226	40.8%	1467	0.7%	7073	3.3%
Morena	158558	74762	47.2%	26749	16.9%	4219	2.7%	52828	33.3%
Narsimhapur	123905	32386	26.1%	79423	64.1%	3945	3.2%	8151	6.6%
Neemuch	127720	77690	60.8%	44393	34.8%	1080	0.8%	4557	3.6%
Panna	135260	59286	43.8%	59280	43.8%	4898	3.6%	11796	8.7%
Raisen	104450	25666	24.6%	61865	59.2%	7005	6.7%	9914	9.5%
Rajgarh	256692	147382	57.4%	98880	38.5%	3215	1.3%	7215	2.8%
Ratlam	195178	97550	50.0%	89965	46.1%	1441	0.7%	6222	3.2%
Rewa	336262	161800	48.1%	148765	44.2%	12501	3.7%	13196	3.9%
Sagar	233454	46285	19.8%	83284	35.7%	89744	38.4%	14141	6.1%
Satna	247240	84350	34.1%	116377	47.1%	28748	11.6%	17765	7.2%
Sehore	167200	75179	45.0%	85369	51.1%	1522	0.9%	5130	3.1%
Seoni	244368	96323	39.4%	134855	55.2%	2456	1.0%	10734	4.4%
Shahdol	247365	93656	37.9%	133846	54.1%	5311	2.1%	14552	5.9%
Shajapur	242943	126834	52.2%	106652	43.9%	2767	1.1%	6690	2.8%
Sheopur	79509	39905	50.2%	33204	41.8%	915	1.2%	5485	6.9%
Shivpuri	238337	164378	69.0%	62074	26.0%	2548	1.1%	9337	3.9%
Sidhi	290125	151393	52.2%	123717	42.6%	5615	1.9%	9400	3.2%
Tikamgarh	209799	139889	66.7%	52773	25.2%	5608	2.7%	11529	5.5%
Ujjain	242645	130732	53.9%	101565	41.9%	2627	1.1%	7721	3.2%
Umaria	78343	28476	36.3%	42264	53.9%	2229	2.8%	5374	6.9%
Vidisha	108318	30603	28.3%	67426	62.2%	3217	3.0%	7072	6.5%
West Nimar (Khargone)	279675	143693	51.4%	124632	44.6%	2468	0.9%	8882	3.2%
Madhya Pradesh	**8669974**	**4039187**	**46.6%**	**3769434**	**43.5%**	**359504**	**4.1%**	**501849**	**5.8%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Urban Workers (Main + Marginal)								
	Urban Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	64111	7024	11.0%	8025	12.5%	1957	3.1%	47105	73.5%
Barwani	53415	4404	8.2%	9083	17.0%	2154	4.0%	37774	70.7%
Betul	70371	4122	5.9%	4142	5.9%	2024	2.9%	60083	85.4%
Bhind	88867	17726	19.9%	9055	10.2%	3217	3.6%	58869	66.2%
Bhopal	438447	4683	1.1%	4481	1.0%	9075	2.1%	420208	95.8%
Chhatarpur	98799	18983	19.2%	9852	10.0%	6446	6.5%	63518	64.3%
Chhindwara	133842	8868	6.6%	15711	11.7%	4081	3.0%	105182	78.6%
Damoh	69799	3766	5.4%	2232	3.2%	21188	30.4%	42613	61.1%
Datia	45962	6452	14.0%	2005	4.4%	2409	5.2%	35096	76.4%
Dewas	110102	9995	9.1%	15134	13.7%	3232	2.9%	81741	74.2%
Dhar	97508	8316	8.5%	10970	11.3%	2395	2.5%	75827	77.8%
Dindori	8516	681	8.0%	836	9.8%	537	6.3%	6462	75.9%
East Nimar (Khandwa)	136765	5311	3.9%	11701	8.6%	5578	4.1%	114175	83.5%
Guna	104150	9537	9.2%	3597	3.5%	10609	10.2%	80407	77.2%
Gwalior	282190	9675	3.4%	4614	1.6%	12022	4.3%	255879	90.7%
Harda	28580	2124	7.4%	2119	7.4%	1185	4.1%	23152	81.0%
Hoshangabad	94759	3724	3.9%	2133	2.3%	3305	3.5%	85597	90.3%
Indore	554876	9585	1.7%	9183	1.7%	23706	4.3%	512402	92.3%
Jabalpur	382805	5351	1.4%	7170	1.9%	39088	10.2%	331196	86.5%
Jhabua	39511	5628	14.2%	1034	2.6%	2352	6.0%	30497	77.2%
Katni	67172	2157	3.2%	1480	2.2%	3220	4.8%	60315	89.8%
Mandla	28337	1420	5.0%	2218	7.8%	790	2.8%	23909	84.4%
Mandsaur	76273	11233	14.7%	7722	10.1%	2816	3.7%	54502	71.5%
Morena	91357	11430	12.5%	3346	3.7%	3105	3.4%	73476	80.4%
Narsimhapur	47098	2593	5.5%	2301	4.9%	4476	9.5%	37728	80.1%
Neemuch	67919	9127	13.4%	6836	10.1%	1989	2.9%	49967	73.6%
Panna	32132	3924	12.2%	3441	10.7%	1799	5.6%	22968	71.5%
Raisen	61398	5128	8.4%	4544	7.4%	5215	8.5%	46511	75.8%
Rajgarh	69452	8149	11.7%	6266	9.0%	3038	4.4%	51999	74.9%
Ratlam	112781	9181	8.1%	5370	4.8%	4632	4.1%	93598	83.0%
Rewa	99984	12579	12.6%	12659	12.7%	11062	11.1%	63684	63.7%
Sagar	202669	10105	5.0%	4511	2.2%	64245	31.7%	123808	61.1%
Satna	123111	9946	8.1%	7239	5.9%	15098	12.3%	90828	73.8%
Sehore	54558	4201	7.7%	4112	7.5%	2150	3.9%	44095	80.8%
Seoni	35568	1494	4.2%	1448	4.1%	1653	4.6%	30973	87.1%
Shahdol	112834	5976	5.3%	5438	4.8%	3896	3.5%	97524	86.4%
Shajapur	81046	13324	16.4%	10111	12.5%	2054	2.5%	55557	68.5%
Sheopur	25441	3169	12.5%	1451	5.7%	751	3.0%	20070	78.9%
Shivpuri	67213	6662	9.9%	3006	4.5%	2015	3.0%	55530	82.6%
Sidhi	75660	10257	13.6%	6077	8.0%	1995	2.6%	57331	75.8%
Tikamgarh	76166	22983	30.2%	8062	10.6%	6555	8.6%	38566	50.6%
Ujjain	205390	11375	5.5%	7224	3.5%	9059	4.4%	177732	86.5%
Umaria	25065	2474	9.9%	4058	16.2%	1429	5.7%	17104	68.2%
Vidisha	74471	5911	7.9%	2924	3.9%	3451	4.6%	62185	83.5%
West Nimar (Khargone)	74415	3343	4.5%	9259	12.4%	3224	4.3%	58589	78.7%
Madhya Pradesh	**4890885**	**334096**	**6.8%**	**264180**	**5.4%**	**316277**	**6.5%**	**3976332**	**81.3%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Urban Male Workers (Main + Marginal)								
	Urban Male Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	46979	4080	8.7%	3583	7.6%	1085	2.3%	38231	81.4%
Barwani	41085	3202	7.8%	4190	10.2%	1446	3.5%	32247	78.5%
Betul	60037	3195	5.3%	2097	3.5%	1439	2.4%	53306	88.8%
Bhind	78272	16134	20.6%	6724	8.6%	2384	3.0%	53030	67.8%
Bhopal	367913	4121	1.1%	2870	0.8%	5362	1.5%	355560	96.6%
Chhatarpur	78813	13962	17.7%	5438	6.9%	3135	4.0%	56278	71.4%
Chhindwara	108491	6972	6.4%	8357	7.7%	2791	2.6%	90371	83.3%
Damoh	50677	3278	6.5%	1480	2.9%	8143	16.1%	37776	74.5%
Datia	35706	4812	13.5%	1107	3.1%	1087	3.0%	28700	80.4%
Dewas	88856	7476	8.4%	7526	8.5%	2288	2.6%	71566	80.5%
Dhar	79953	6198	7.8%	5566	7.0%	1691	2.1%	66498	83.2%
Dindori	6822	577	8.5%	437	6.4%	356	5.2%	5452	79.9%
East Nimar (Khandwa)	114083	4281	3.8%	5939	5.2%	3639	3.2%	100224	87.9%
Guna	85989	7486	8.7%	2054	2.4%	5271	6.1%	71178	82.8%
Gwalior	245038	8505	3.5%	2695	1.1%	6256	2.6%	227582	92.9%
Harda	24529	1786	7.3%	1124	4.6%	747	3.0%	20872	85.1%
Hoshangabad	82091	3434	4.2%	1267	1.5%	2047	2.5%	75343	91.8%
Indore	467042	7538	1.6%	4701	1.0%	16856	3.6%	437947	93.8%
Jabalpur	312866	4779	1.5%	4312	1.4%	19800	6.3%	283975	90.8%
Jhabua	30045	3089	10.3%	452	1.5%	1510	5.0%	24994	83.2%
Katni	56780	1775	3.1%	791	1.4%	1709	3.0%	52505	92.5%
Mandla	22209	1001	4.5%	1242	5.6%	527	2.4%	19439	87.5%
Mandsaur	58978	6481	11.0%	3396	5.8%	1907	3.2%	47194	80.0%
Morena	80727	9765	12.1%	2513	3.1%	1888	2.3%	66561	82.5%
Narsimhapur	38881	2355	6.1%	1352	3.5%	2767	7.1%	32407	83.3%
Neemuch	53774	5172	9.6%	2658	4.9%	1315	2.4%	44629	83.0%
Panna	25846	3215	12.4%	1982	7.7%	1043	4.0%	19606	75.9%
Raisen	51557	4654	9.0%	3056	5.9%	2358	4.6%	41489	80.5%
Rajgarh	54589	5394	9.9%	2625	4.8%	1836	3.4%	44734	81.9%
Ratlam	93304	6023	6.5%	2277	2.4%	3282	3.5%	81722	87.6%
Rewa	75332	8293	11.0%	6369	8.5%	5752	7.6%	54918	72.9%
Sagar	148861	8876	6.0%	3208	2.2%	26478	17.8%	110299	74.1%
Satna	96255	7165	7.4%	3686	3.8%	6670	6.9%	78734	81.8%
Sehore	46226	3498	7.6%	2608	5.6%	1435	3.1%	38685	83.7%
Seoni	28890	1028	3.6%	702	2.4%	1147	4.0%	26013	90.0%
Shahdol	97773	4957	5.1%	3183	3.3%	2563	2.6%	87070	89.1%
Shajapur	63131	8838	14.0%	4347	6.9%	1278	2.0%	48668	77.1%
Sheopur	21454	2764	12.9%	559	2.6%	406	1.9%	17725	82.6%
Shivpuri	57664	4951	8.6%	1456	2.5%	1212	2.1%	50045	86.8%
Sidhi	63655	6785	10.7%	3380	5.3%	1362	2.1%	52128	81.9%
Tikamgarh	52850	14412	27.3%	3235	6.1%	2623	5.0%	32580	61.6%
Ujjain	168521	7692	4.6%	3348	2.0%	5164	3.1%	152317	90.4%
Umaria	19937	1830	9.2%	2080	10.4%	958	4.8%	15069	75.6%
Vidisha	63791	5415	8.5%	2049	3.2%	1853	2.9%	54474	85.4%
West Nimar (Khargone)	60389	2660	4.4%	4702	7.8%	2217	3.7%	50810	84.1%
Madhya Pradesh	**4006661**	**249904**	**6.2%**	**138723**	**3.5%**	**167083**	**4.2%**	**3450951**	**86.1%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 5: SECTOR SHARE OF EMPLOYMENT OF MAIN AND MARGINAL WORKERS, 2001

District	Category of Urban Female Workers (Main + Marginal)								
	Urban Female Workers (Main+Marginal)	Cultivators		Agricultural Labourers		Workers in Household Industry		Other Workers	
	Nos	Nos	%	Nos	%	Nos	%	Nos	%
Balaghat	17132	2944	17.2%	4442	25.9%	872	5.1%	8874	51.8%
Barwani	12330	1202	9.7%	4893	39.7%	708	5.7%	5527	44.8%
Betul	10334	927	9.0%	2045	19.8%	585	5.7%	6777	65.6%
Bhind	10595	1592	15.0%	2331	22.0%	833	7.9%	5839	55.1%
Bhopal	70534	562	0.8%	1611	2.3%	3713	5.3%	64648	91.7%
Chhatarpur	19986	5021	25.1%	4414	22.1%	3311	16.6%	7240	36.2%
Chhindwara	25351	1896	7.5%	7354	29.0%	1290	5.1%	14811	58.4%
Damoh	19122	488	2.6%	752	3.9%	13045	68.2%	4837	25.3%
Datia	10256	1640	16.0%	898	8.8%	1322	12.9%	6396	62.4%
Dewas	21246	2519	11.9%	7608	35.8%	944	4.4%	10175	47.9%
Dhar	17555	2118	12.1%	5404	30.8%	704	4.0%	9329	53.1%
Dindori	1694	104	6.1%	399	23.6%	181	10.7%	1010	59.6%
East Nimar (Khandwa)	22682	1030	4.5%	5762	25.4%	1939	8.5%	13951	61.5%
Guna	18161	2051	11.3%	1543	8.5%	5338	29.4%	9229	50.8%
Gwalior	37152	1170	3.1%	1919	5.2%	5766	15.5%	28297	76.2%
Harda	4051	338	8.3%	995	24.6%	438	10.8%	2280	56.3%
Hoshangabad	12668	290	2.3%	866	6.8%	1258	9.9%	10254	80.9%
Indore	87834	2047	2.3%	4482	5.1%	6850	7.8%	74455	84.8%
Jabalpur	69939	572	0.8%	2858	4.1%	19288	27.6%	47221	67.5%
Jhabua	9466	2539	26.8%	582	6.1%	842	8.9%	5503	58.1%
Katni	10392	382	3.7%	689	6.6%	1511	14.5%	7810	75.2%
Mandla	6128	419	6.8%	976	15.9%	263	4.3%	4470	72.9%
Mandsaur	17295	4752	27.5%	4326	25.0%	909	5.3%	7308	42.3%
Morena	10630	1665	15.7%	833	7.8%	1217	11.4%	6915	65.1%
Narsimhapur	8217	238	2.9%	949	11.5%	1709	20.8%	5321	64.8%
Neemuch	14145	3955	28.0%	4178	29.5%	674	4.8%	5338	37.7%
Panna	6286	709	11.3%	1459	23.2%	756	12.0%	3362	53.5%
Raisen	9841	474	4.8%	1488	15.1%	2857	29.0%	5022	51.0%
Rajgarh	14863	2755	18.5%	3641	24.5%	1202	8.1%	7265	48.9%
Ratlam	19477	3158	16.2%	3093	15.9%	1350	6.9%	11876	61.0%
Rewa	24652	4286	17.4%	6290	25.5%	5310	21.5%	8766	35.6%
Sagar	53808	1229	2.3%	1303	2.4%	37767	70.2%	13509	25.1%
Satna	26856	2781	10.4%	3553	13.2%	8428	31.4%	12094	45.0%
Sehore	8332	703	8.4%	1504	18.1%	715	8.6%	5410	64.9%
Seoni	6678	466	7.0%	746	11.2%	506	7.6%	4960	74.3%
Shahdol	15061	1019	6.8%	2255	15.0%	1333	8.9%	10454	69.4%
Shajapur	17915	4486	25.0%	5764	32.2%	776	4.3%	6889	38.5%
Sheopur	3987	405	10.2%	892	22.4%	345	8.7%	2345	58.8%
Shivpuri	9549	1711	17.9%	1550	16.2%	803	8.4%	5485	57.4%
Sidhi	12005	3472	28.9%	2697	22.5%	633	5.3%	5203	43.3%
Tikamgarh	23316	8571	36.8%	4827	20.7%	3932	16.9%	5986	25.7%
Ujjain	36869	3683	10.0%	3876	10.5%	3895	10.6%	25415	68.9%
Umaria	5128	644	12.6%	1978	38.6%	471	9.2%	2035	39.7%
Vidisha	10680	496	4.6%	875	8.2%	1598	15.0%	7711	72.2%
West Nimar (Khargone)	14026	683	4.9%	4557	32.5%	1007	7.2%	7779	55.5%
Madhya Pradesh	**884224**	**84192**	**9.5%**	**125457**	**14.2%**	**149194**	**16.9%**	**525381**	**59.4%**

Source: Paper 3 of Madhya Pradesh, Census of India 2001, Registrar General of India, New Delhi

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

EL 6 gives the land use classification in Madhya Pradesh in the years 1978-79, 1988-89 and 1998-99, with a breakup of the Total Geographical Area into Net Sown Area, Forest, Land not available for Cultivation, Other Uncultivated Land excluding Fallow Land, Cultivable Wasteland and Fallow Land. The above categories have further been divided into sub-groups. The Total Cropped Area, the Net Sown Area along with cropping intensity has also been given. The table also gives information on the percentage change in Net-Cropped Area and Gross Cropped over periods of ten years between 1978-79 to 1988-89 and between 1988-89 to 1998-99. Gross and Net Cropped Area as a percentage of Total Geographical Area are also calculated along with Area Sown more than once as a percentage of Net Sown Area.

Geographical Area

The latest figure of geographical area for the State/ Union Territory/ Districts furnished by the Office of the Surveyor General of India's data.

Forests

This includes all lands classed as forest under any legal enactment dealing with forests or administered as forests, whether state-owned or private, and whether wooded or maintained as potential forest land. The area of crops raised in the forest and grazing lands or areas open for grazing within the forests remain included under the forest area.

Area under Non-agricultural Uses

This includes all lands occupied by buildings, roads and railways or under water, e.g. rivers and canals and other lands put to uses other than agriculture.

Barren and Un-culturable Land

This includes all barren and unculturable land like mountains, deserts, etc. Land which cannot be brought under cultivation except at an exorbitant cost, should be classed as unculturable whether such land is in isolated blocks or within cultivated holdings.

Permanent Pastures and other Grazing Lands

This includes all grazing lands whether they are permanent pastures and meadows or not. Village common grazing land is included under this head.

Land under Miscellaneous Tree Crops, etc.

This includes all cultivable land which is not included in 'Net area sown' but is put to some agricultural uses. Lands under Casurina trees, thatching grasses, bamboo bushes and other groves for fuel, etc. which are not included under 'Orchards' are classed under this category.

Culturable Waste Land

This includes lands available for cultivation, whether not taken up for cultivation or taken up for cultivation once but not cultivated during the current year and the last five years or more in succession for one reason or other. Such lands may be either fallow or covered with shrubs and jungles, which are not put to any use. They may be assessed or unassessed and may lie in isolated blocks or within cultivated holdings. Land once cultivated but not cultivated for five years in succession is also included in this category at the end of the five years.

Fallow Lands other than Current Fallow

This includes all lands which were taken up for cultivation but are temporarily out of cultivation for a period of not less than one year and not more than five years.

Current Fallow

This represents cropped area, which are kept fallow during the current year. For example, if any seeding area is not cropped against the same year it may be treated as current fallow.

Net Area Sown

This represents the total area sown with crops and orchards. Area sown more than once; in the same year is counted only once.

Gross Cropped Area

This represents the total area covered with crops, i.e. the sum total of areas covered by all the individual crops; areas sown with crops more than once during the year being counted as separate areas for each crop.

Area Sown more than once

This is obtained by deducting 'Net Area Sown' from 'Total Cropped Area'.

	Year	Madhya Pradesh	India
Geographical Area ('000 hectares)	1998-99	30745	306044
Share of India	10%	27.99	22.54
As percentage of geographical area			
Forests	1998-99	6	7.45
Area under non-agricultural uses	1998-99	4.38	6.39
Barren and unculturable land	1998-99	5.52	3.63
Permanent Pastures and Other Grazing Land	1998-99	0.06	1.18
Land under Miscellaneous Tree Crops	1998-99	3.82	4.56
Culturable Wasteland	1998-99	1.76	3.24
Current Fallow	1998-99	1.62	4.42
Net Area Sown as % of total geographical area	1998-99	48.84	46.59
Share of India	10.53%		
Gross Area Sown as % of total geographical area	1998-99	66.24	62.94
Share of India	10.57%		
Area sown more than once as percentage of net sown area	1998-99	17.41	35.08
Cropping Intensity	1998-99	135.4	135.1

Source: Agricultural Statistics 2000, Directorate of Agriculture, Madhya Pradesh for M.P. and Land Statistics at a Glance, Directorate of Economics and Statistics, Department of Agriculture and Co-operation, Government of India for India

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Geographical Area uptil 1990	Geographical Area after formation of new districts	Net Area Sown		
			1978-79	1988-89	1998-99
Balaghat	922300	924500	275400	276500	272758
Betul	1007800	1007800	388200	408800	407097
Bhind	445200	445204	336100	336500	337327
Bhopal	270800	277880	150200	157000	158691
Chhatarpur	863100	863036	340200	348100	383463
Chhindwara	1184900	1184923	476300	491300	495929
Damoh	728600	728583	277000	280100	302295
Datia	203500	263959	127300	131700	190614
Dewas	700300	700812	348500	359200	373533
Dhar	819500	819541	492100	499500	505275
East Nimar (Khandwa)	1117200	1118357	438000	448400	438339
Guna	1098200	1098160	567000	615000	633720
Gwalior	521900	456449	251000	262600	216621
Hoshangabad	999300	668689	437200	454900	293651
Harda		330579	Included in Hoshangabad		169827
Indore	383100	383097	257100	250300	257102
Jabalpur	1012500	519757	468400	436200	278647
Katni		493015	Included in Jabalpur		201172
Jhabua	675700	675716	340400	353300	361879
Mandla	1326000	912455	420300	410100	198014
Dindori		412039	Included in Mandla		238383
Mandsaur	946400	552098	512600	541600	350922
Neemuch		393915	Included in Mandsaur		188619
Morena	1168300	501686	373800	414400	265843
Sheopur		666650	Included in Morena		151856
Narsimhapur	513600	513651	273000	288000	297735
Panna	702900	702924	212700	219000	243240
Raisen	848700	848746	402800	418400	426247
Rajgarh	611700	616300	394600	406400	414756
Ratlam	486400	486474	300700	314100	325030
Rewa	628800	628745	366900	357100	371843
Sagar	1023200	1022759	508100	513200	531983
Satna	742400	742432	347500	353100	362254
Sehore	656300	656368	347500	365600	376745
Seoni	870800	875401	369700	367900	371743
Shahdol	1386000	935677	473100	446000	359966
Umaria		450329	Included in Shahdol		110914
Shajapur	617800	617836	411200	430000	442268
Shivpuri	1017300	1017346	354200	383200	413534
Sidhi	1039200	1039194	344100	348400	377053
Tikamgarh	504000	504002	224100	234400	263475
Ujjain	611600	609874	456100	462400	480179
Vidisha	730200	730197	502000	517300	530639
West Nimar(Khargone)	1348500	648302	619500	629300	411013
Barwani		700201	Included in West Nimar		233384
Non-reported					114634
Madhya Pradesh	**30734000**	**30745658**	**14184900**	**14529300**	**15015578**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	% Change in Net Cropped Area over Period of Ten Years		% of Net Area Sown To Geographical Area		
	1978-79 to1988-89	1988-89 to 1998-99	1978-79	1988-89	19998-99
Balaghat	0.4	-1.4	29.9	30.0	29.5
Betul	5.3	-0.4	38.5	40.6	40.4
Bhind	0.1	0.2	75.5	75.6	75.8
Bhopal	4.5	1.1	55.5	58.0	57.1
Chhatarpur	2.3	10.2	39.4	40.3	44.4
Chhindwara	3.1	0.9	40.2	41.5	41.9
Damoh	1.1	7.9	38.0	38.4	41.5
Datia	3.5	44.7	62.6	64.7	72.2
Dewas	3.1	4.0	49.8	51.3	53.3
Dhar	1.5	1.2	60.0	61.0	61.7
East Nimar (Khandwa)	2.4	-2.2	39.2	40.1	39.2
Guna	8.5	3.0	51.6	56.0	57.7
Gwalior	4.6	-17.5	48.1	50.3	47.5
Hoshangabad	4.0	-35.4	43.8	45.5	43.9
Harda			Included in Hoshangabad		51.4
Indore	-2.6	2.7	67.1	65.3	67.1
Jabalpur	-6.9	-36.1	46.3	43.1	53.6
Katni			Included in Jabalpur		40.8
Jhabua	3.8	2.4	50.4	52.3	53.6
Mandla	-2.4	-51.7	31.7	30.9	21.7
Dindori			Included in Mandla		57.9
Mandsaur	5.7	-35.2	54.2	57.2	63.6
Neemuch			Included in Mandsaur		47.9
Morena	10.9	-35.8	32.0	35.5	53.0
Sheopur			Included in Morena		22.8
Narsimhapur	5.5	3.4	53.2	56.1	58.0
Panna	3.0	11.1	30.3	31.2	34.6
Raisen	3.9	1.9	47.5	49.3	50.2
Rajgarh	3.0	2.1	64.5	66.4	67.3
Ratlam	4.5	3.5	61.8	64.6	66.8
Rewa	-2.7	4.1	58.3	56.8	59.1
Sagar	1.0	3.7	49.7	50.2	52.0
Satna	1.6	2.6	46.8	47.6	48.8
Sehore	5.2	3.0	52.9	55.7	57.4
Seoni	-0.5	1.0	42.5	42.2	42.5
Shahdol	-5.7	-19.3	34.1	32.2	38.5
Umaria			Included in Shahdol		24.6
Shajapur	4.6	2.9	66.6	69.6	71.6
Shivpuri	8.2	7.9	34.8	37.7	40.6
Sidhi	1.2	8.2	33.1	33.5	36.3
Tikamgarh	4.6	12.4	44.5	46.5	52.3
Ujjain	1.4	3.8	74.6	75.6	78.7
Vidisha	3.0	2.6	68.7	70.8	72.7
West Nimar(Khargone)	1.6	-34.7	45.9	46.7	63.4
Barwani			Included in West Nimar		33.3
Madhya Pradesh	**2.4**	**3.3**	**46.2**	**47.3**	**48.8**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Gross Cropped Area			% Change in Gross Cropped Area over Period of 10 Years	
	1978-79	1988-89	1998-99	1978-79 to 1988	1988-89 to 1998-99
Balaghat	374800	363500	343698	-3.0	-5.4
Betul	432900	480000	531856	10.9	10.8
Bhind	355200	361900	366728	1.9	1.3
Bhopal	154600	180000	226141	16.4	25.6
Chhatarpur	387700	405600	484283	4.6	19.4
Chhindwara	528000	566800	615518	7.3	8.6
Damoh	304900	308000	389105	1.0	26.3
Datia	130000	138700	209157	6.7	50.8
Dewas	387700	439000	590470	13.2	34.5
Dhar	565200	601300	731587	6.4	21.7
East Nimar (Khandwa)	465400	492800	543613	5.9	10.3
Guna	592800	657400	745883	10.9	13.5
Gwalior	272400	287400	258598	5.5	-10.0
Hoshangabad	448100	574600	478346	28.2	-16.8
Harda		Included in Hoshangabad	284926	Included in Hoshangabad	
Indore	304900	365500	448557	19.9	22.7
Jabalpur	562700	508100	368594	-9.7	-27.5
Katni		Included in Jabalpur	265787	Included in Jabalpur	
Jhabua	382100	396500	474361	3.8	19.6
Mandla	517900	488400	262330	-5.7	-46.3
Dindori		Included in Mandla	308075	Included in Mandla	
Mandsaur	684800	763900	570096	11.6	-25.4
Neemuch		Included in Mandsaur	305471	Included in Mandsaur	
Morena	419000	471800	320256	12.6	-32.1
Sheopur		Included in Morena	205239	Included in Morena	
Narsimhapur	286200	324900	412968	13.5	27.1
Panna	243100	243900	284009	0.3	16.4
Raisen	407500	467600	551415	14.7	17.9
Rajgarh	437100	489000	603373	11.9	23.4
Ratlam	361100	412900	518582	14.3	25.6
Rewa	467900	432500	500385	-7.6	15.7
Sagar	529400	563200	689048	6.4	22.3
Satna	424300	414000	488145	-2.4	17.9
Sehore	368000	447900	578036	21.7	29.1
Seoni	395900	406900	463649	2.8	13.9
Shahdol	548200	507700	426988	-7.4	-15.9
Umaria		Included in Shahdol	142005	Included in Shahdol	
Shajapur	459400	546700	720420	19.0	31.8
Shivpuri	397700	444800	532335	11.8	19.7
Sidhi	456700	449000	508521	-1.7	13.3
Tikamgarh	284600	316200	398616	11.1	26.1
Ujjain	513300	603000	819551	17.5	35.9
Vidisha	514000	558000	637749	8.6	14.3
West Nimar(Khargone)	681900	691300	483999	1.4	-30.0
Barwani		Included in West Nimar	278695	Included in West Nimar	
Non-reported			114634		
Madhya Pradesh	**16047400**	**17170700**	**20481798**	**7.0**	**18.6**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	% Of Gross Area Sown to Geographical Area			Area Sown More Than Once		
	1978-79	1988-89	1998-99	1978-79	1988-89	1998-99
Balaghat	40.6	39.4	37.2	99400	87000	70940
Betul	43.0	47.6	52.8	44700	71200	124759
Bhind	79.8	81.3	82.4	19100	25400	29401
Bhopal	57.1	66.5	81.4	4400	23000	67450
Chhatarpur	44.9	47.0	56.1	47500	57500	100820
Chhindwara	44.6	47.8	51.9	51700	75500	119589
Damoh	41.8	42.3	53.4	27900	27900	86810
Datia	63.9	68.2	79.2	2700	7000	18543
Dewas	55.4	62.7	84.3	39200	79800	216937
Dhar	69.0	73.4	89.3	73100	101800	226312
East Nimar (Khandwa)	41.7	44.1	48.6	27400	44400	105274
Guna	54.0	59.9	67.9	25800	42400	112163
Gwalior	52.2	55.1	56.7	21400	24800	41977
Hoshangabad	44.8	57.5	71.5	10900	119700	184695
Harda		Included in Hoshangabad	86.2		Included in Hoshangabad	115099
Indore	79.6	95.4	117.1	47800	115200	191455
Jabalpur	55.6	50.2	70.9	94300	71900	89947
Katni		Included in Jabalpur	53.9		Included in Jabalpur	64615
Jhabua	56.5	58.7	70.2	41700	43200	112482
Mandla	39.1	36.8	28.7	97600	78300	64316
Dindori		Included in Mandla	74.8		Included in Mandla	69692
Mandsaur	72.4	80.7	103.3	172200	222300	219174
Neemuch		Included in Mandsaur	77.5		Included in Mandsaur	116852
Morena	35.9	40.4	63.8	45200	57400	54413
Sheopur		Included in Morena	30.8		Included in Morena	53383
Narsimhapur	55.7	63.3	80.4	13200	36900	115233
Panna	34.6	34.7	40.4	30400	24900	40769
Raisen	48.0	55.1	65.0	4700	49200	125168
Rajgarh	71.5	79.9	97.9	42500	82600	188617
Ratlam	74.2	84.9	106.6	60400	98800	193552
Rewa	74.4	68.8	79.6	101000	75400	128542
Sagar	51.7	55.0	67.4	21300	50000	157065
Satna	57.2	55.8	65.7	76800	60900	125891
Sehore	56.1	68.2	88.1	20500	82300	201291
Seoni	45.5	46.7	53.0	26200	39000	91906
Shahdol	39.6	36.6	45.6	75100	61700	67022
Umaria		Included in Shahdol	31.5		Included in Shahdol	31091
Shajapur	74.4	88.5	116.6	48200	116700	278152
Shivpuri	39.1	43.7	52.3	43500	61600	118801
Sidhi	43.9	43.2	48.9	112600	100600	131468
Tikamgarh	56.5	62.7	79.1	60500	81800	135141
Ujjain	83.9	98.6	134.4	57200	140600	339372
Vidisha	70.4	76.4	87.3	12000	40700	107110
West Nimar(Khargone)	50.6	51.3	74.7	62400	62000	72986
Barwani		Included in West Nimar	39.8		Included in West Nimar	45311
Madhya Pradesh	52.2	55.9	66.2	1862500	2641400	5351586

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	% Of Area Sown More Than Once to Net			Cropping Intensity		Forest		
	1978-79	1988-89	1998-99	1992-93	1998-99	1977-78	1988-89	1998-99
Balaghat	36.1	31.5	26.0	127.8	126.0	490000	421100	505591
Betul	11.5	17.4	30.6	119.0	130.6	1008000	394900	395579
Bhind	5.7	7.5	8.7	108.5	108.7	445000	7400	8905
Bhopal	2.9	14.6	42.5	122.5	142.5	271000	38700	44106
Chhatarpur	14.0	16.5	26.3	119.1	126.3	87000	85900	214299
Chhindwara	10.9	15.4	24.1	113.6	124.1	444000	446800	478886
Damoh	10.1	10.0	28.7	115.1	128.7	266000	266800	267003
Datia	2.1	5.3	9.7	106.0	109.7	204000	22600	20772
Dewas	11.2	22.2	58.1	121.6	158.1	203000	204100	205689
Dhar	14.9	20.4	44.8	129.3	144.8	75000	136700	119424
East Nimar (Khandwa)	6.3	9.9	24.0	110.0	124.0	508000	512200	511843
Guna	4.6	6.9	17.7	110.7	117.7	1098000	153000	152086
Gwalior	8.5	9.4	19.4	108.1	119.4	522000	109300	109530
Hoshangabad	2.5	26.3	62.9	148.2	162.9	999000	360300	253202
Harda		Included in Hoshangabad	67.8		167.8	Incl. in Hoshangabad		104653
Indore	18.6	46.0	74.5	142.2	174.5	52000	52200	52208
Jabalpur	20.1	16.5	32.3	122.4	132.3	169000	157400	73711
Katni		Included in Jabalpur	32.1		132.1	Included in Jabalpur		100028
Jhabua	12.3	12.2	31.1	140.2	131.1	114000	118300	130873
Mandla	23.2	19.1	32.5	119.7	132.5	571000	571200	583195
Dindori		Included in Mandla	29.2		129.2	Included in Mandla		34826
Mandsaur	33.6	41.0	62.5	150.3	162.5	107000	106500	36815
Neemuch		Included in Mandsaur	62.0		162.0	Included in Mandsaur		68038
Morena	12.1	13.9	20.5	111.0	120.5	1169000	331100	50669
Sheopur		Included in Morena	35.2		135.2	Included in Morena		282818
Narsimhapur	4.8	12.8	38.7	126.5	138.7	137000	136200	136207
Panna	14.3	11.4	16.8	112.8	116.8	238000	238600	299382
Raisen	1.2	11.8	29.4	121.9	129.4	848000	333800	333407
Rajgarh	10.8	20.3	45.5	122.0	145.5	612000	14500	18801
Ratlam	20.1	31.5	59.5	148.6	159.5	35000	34500	34530
Rewa	27.5	21.1	34.6	129.7	134.6	66000	67000	66987
Sagar	4.2	9.7	29.5	114.9	129.5	291000	290600	288809
Satna	22.1	17.2	34.8	123.0	134.8	131000	133500	203485
Sehore	5.9	22.5	53.4	128.1	153.4	656000	172100	171828
Seoni	7.1	10.6	24.7	114.3	124.7	320000	322500	327752
Shahdol	15.9	13.8	18.6	113.4	118.6	591000	556800	304334
Umaria		Included in Shahdol	28.0		128.0	Included in Shahdol		237235
Shajapur	11.7	27.1	62.9	129.5	162.9	3000	2700	6793
Shivpuri	12.3	16.1	28.7	117.8	128.7	1017000	233300	330272
Sidhi	32.7	28.9	34.9	125.2	134.9	432000	446300	437961
Tikamgarh	27.0	34.9	51.3	140.9	151.3	65000	66700	66648
Ujjain	12.5	30.4	70.7	143.5	170.7	8000	7800	3149
Vidisha	2.4	7.9	20.2	110.9	120.2	730000	105100	105825
West Nimar (Khargone)	10.1	9.9	17.8	110.5	117.8	472000	470400	74928
Barwani		included in West Nimar	19.4		119.4	Incl. in West Nimar		353459
Non-reported								-114634
Madhya Pradesh	13.1	18.2	35.6	121.1	135.4	15454000	8128900	8491907

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Land Not Available For Cultivation								
	Land Put To Non Agricultural Uses			Barren and Uncultivable Land			Total		
	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99
Balaghat	44000	45600	46333	15000	78700	9493	59000	124300	55826
Betul	43000	45700	46460	26000	25500	25376	69000	71200	71836
Bhind	28000	30200	35357	31000	28400	24033	59000	58600	59390
Bhopal	24000	25500	26833	3000	3000	3822	27000	28500	30655
Chhatarpur	45000	46200	43990	105000	104100	1742	150000	150300	45732
Chhindwara	48000	51600	52060	42000	47600	27435	90000	99200	79495
Damoh	25000	35600	31930	36000	45700	58734	61000	81300	90664
Datia	20000	11000	13649	4000	11400	11488	24000	22400	25137
Dewas	31000	31800	35049	15000	13800	11024	46000	45600	46073
Dhar	40000	44900	48758	108000	50700	66917	148000	95600	115675
East Nimar (Khandwa)	44000	53200	59786	21000	14900	14611	65000	68100	74397
Guna	53000	54400	60273	106000	101700	96779	159000	158100	157052
Gwalior	33000	34000	31844	58000	54500	51813	91000	88500	83657
Hoshangabad	41000	33000	19124	31000	33300	24282	72000	66300	43406
Harda		Incl. in Hoshangabad	14240		Incl. in Hoshangabad	8813		Incl. in Hoshangabad	23053
Indore	25000	28600	32804	3000	2800	4575	28000	31400	37379
Jabalpur	53000	58200	31241	73000	81600	38836	126000	139800	70077
Katni		Incl. in Jabalpur	33786		Incl. in Jabalpur	34828		Incl. in Jabalpur	68614
Jhabua	37000	43400	54191	105000	88900	57762	142000	132300	111953
Mandla	49000	62400	38562	67000	61100	8332	116000	123500	46894
Dindori		Incl. in Mandla	29997		Incl. in Mandla	12678		Incl. in Mandla	42675
Mandsaur	106000	98400	69477	98000	96900	34398	204000	195300	103875
Neemuch		Incl. in Mandsaur	41573		Incl. in Mandsaur	59649		Incl. in Mandsaur	101222
Morena	65000	64900	39243	210000	203600	94069	275000	268500	133312
Sheopur		Incl. in Morena	27091		Incl. in Morena	112033		Incl. in Morena	139124
Narsimhapur	23000	22700	23884	1000	1000	1028	24000	23700	24912
Panna	34000	37200	40807	96000	89600	22845	130000	126800	63652
Raisen	35000	37800	38676	3000	3700	3536	38000	41500	42212
Rajgarh	33000	37500	39901	27000	29900	30621	60000	67400	70522
Ratlam	21000	26100	27180	34000	42800	41856	55000	68900	69036
Rewa	52000	59900	58319	42000	36700	41816	94000	96600	100135
Sagar	43000	44100	51860	15000	19700	17237	58000	63800	69097
Satna	58000	57100	61193	84000	83300	14995	142000	140400	76188
Sehore	33000	35500	38703	5000	4100	6453	38000	39600	45156
Seoni	35000	39800	45944	7000	5700	5170	42000	45500	51114
Shahdol	81000	85400	69955	69000	39000	30498	150000	124400	100453
Umaria		Incl. in Shahdol	28687		Incl. in Shahdol	8779		Incl. in Shahdol	37466
Shajapur	40000	42400	49474	55000	51300	33651	95000	93700	83125
Shivpuri	66000	60300	59568	101000	72300	37103	167000	132600	96671
Sidhi	51000	56900	73741	102000	57100	32204	153000	114000	105945
Tikamgarh	32000	32600	39650	41000	54000	46244	73000	86600	85894
Ujjain	34000	32100	41498	12000	6400	3118	46000	43500	44616
Vidisha	36000	34500	36303	11000	11200	10266	47000	45700	46569
West Nimar(Khargone)	49000	50500	35426	53000	59100	16935	102000	109600	52361
Barwani		Incl. in West Nimar	20318		Incl. in West Nimar	49561		Incl. in West Nimar	69879
Madhya Pradesh	1610000	1691000	1844738	1915000	1815100	1347438	3525000	3513100	3192176

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Other Uncultivated Land Excluding Fallow Lands								
	Permanent Pasture & Other Grazing Land			Land Under Miscellaneous Trees Crops & Groves			Total		
	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99
Balaghat	36000	45900	32266	4000	1900	602	40000	47800	32868
Betul	21000	26300	27327	0	0	4	21000	26300	27331
Bhind	24000	25100	21580	1000	400	610	25000	25500	22190
Bhopal	36000	33000	34262	0	100	26	36000	33100	34288
Chhatarpur	90000	95700	66024	0	300	321	90000	96000	66345
Chhindwara	53000	58100	51428	0	100	31	57000	58200	51459
Damoh	65000	44200	35780	1000	400	150	66000	44600	35930
Datia	6000	6200	7921	2000	100	126	8000	6300	8047
Dewas	88000	83500	70646	0	0	23	88000	83500	70669
Dhar	60000	55400	53111	0	0	38	60000	55400	53149
East Nimar (Khandwa)	74000	66800	69785	1000	400	205	75000	67200	69990
Guna	78000	59000	55482	0	0	22	78000	59000	55504
Gwalior	28000	21800	16613	0	100	69	28000	21900	16682
Hoshangabad	60000	56600	30705	1000	2200	3380	61000	58800	34085
Harda	Included in Hoshangabad		20849	Included in Hoshangabad		695	Included in Hoshangabad		21544
Indore	35000	29500	31796	0	100	75	35000	29600	31871
Jabalpur	99000	102300	42438	9000	1600	144	108000	103900	42582
Katni	Included in Jabalpur		45224	Included in Jabalpur		652	Included in Jabalpur		45876
Jhabua	50000	42500	33536	0	0	4	50000	42500	33540
Mandla	45000	41500	18090	0	100	45	45000	41600	18135
Dindori	Included in Mandla		15123	Included in Mandla		18	Included in Mandla		15141
Mandsaur	54000	53200	36810	0	100	73	54000	53300	36883
Neemuch	Included in Mandsaur		18116	Included in Mandsaur		3	Included in Mandsaur		18119
Morena	64000	68100	28724	0	0	0	64000	68100	28724
Sheopur	Included in Morena		40195	Included in Morena		0	Included in Morena		40195
Narsimhapur	39000	29500	26272	0	200	160	39000	29700	26432
Panna	13000	10200	11817	0	0	35	13000	10200	11852
Raisen	27000	27900	28960	0	100	105	27000	28000	29065
Rajgarh	91000	89100	83470	0	100	41	91000	89200	83511
Ratlam	42000	32600	30859	0	300	117	42000	32900	30976
Rewa	42000	40000	35743	1000	1500	1616	43000	41500	37359
Sagar	102000	122700	93501	3000	600	1420	105000	123300	94921
Satna	25000	21500	20022	9000	4700	3410	34000	26200	23432
Sehore	66000	62400	46979	0	0	10	66000	62400	46989
Seoni	38000	34000	29602	1000	0	32	39000	3400	29634
Shahdol	44000	39400	17222	1000	1500	837	45000	40900	18059
Umaria	Included in Shahdol		17557	Included in Shahdol		285	Included in Shahdol		17842
Shajapur	70000	58700	63497	0	100	56	70000	58800	63553
Shivpuri	68000	60200	45839	32000	41100	1396	100000	101300	47235
Sidhi	0	0	0	0	0	1	0	0	1
Tikamgarh	71000	55300	40956	0	400	18	71000	55700	40974
Ujjain	74000	76800	68125	0	100	109	74000	76900	68234
Vidisha	43000	39500	31884	0	0	80	43000	39500	31964
West Nimar(Khargone)	106000	96600	74138	0	100	68	106000	96700	74206
Barwani	Included in West Nimar		28210	Included in West Nimar		0	Included in West Nimar		28210
Madhya Pradesh	**2027000**	**1911100**	**1698484**	**66000**	**58700**	**17112**	**2097000**	**1939200**	**1715596**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Cultivable Waste Land								
	Land That Can be Brought Under Cultivation Immediately			Land That Can be brought Under Cultivation After Some			Un-Economical Patches Of Land		
	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99
Balaghat	12000	8300	10079	9000	7000	7800	8000	8700	10149
Betul	31000	31200	22369	7000	8000	13498	5000	6000	13774
Bhind	5000	7300	5344	2000	1500	1397	3000	600	3017
Bhopal	8000	2700	1099	4000	2700	1106	4000	3900	3539
Chhatarpur	26000	35200	28589	45000	34900	27146	41000	33400	24875
Chhindwara	22000	11700	10201	10000	5600	5604	4000	4200	3565
Damoh	21000	19700	9926	10000	8000	3591	5000	5400	4312
Datia	13000	11400	7371	1000	0	0	3000	2100	4418
Dewas	5000	3200	2222	2000	200	546	2000	300	254
Dhar	9000	6400	7385	9000	7400	5844	11000	8800	6014
East Nimar (Khandwa)	4000	1000	213	0	800	229	1000	500	156
Guna	52000	77500	64409	28000	11900	14053	40000	4600	8236
Gwalior	16000	13700	11790	7000	6300	5892	7000	5800	4864
Hoshangabad	23000	19300	14652	10000	7800	8664	8000	7000	6354
Harda	Included in Hoshangabad		4234	Included in Hoshangabad		2038	Included in Hoshangabad		1194
Indore	5000	5000	0	1000	300	0	3000	200	0
Jabalpur	29000	29600	8657	19000	22700	6399	16000	19700	6945
Katni	Included in Jabalpur		11831	Included in Jabalpur		11304	Included in Jabalpur		10275
Jhabua	6000	3800	2166	0	4600	25506	6000	7800	0
Mandla	28000	28100	5832	8000	7200	5009	4000	4800	4975
Dindori	Included in Mandla		8074	Included in Mandla		3272	Included in Mandla		2157
Mandsaur	23000	4900	3351	17000	14100	6490	22000	25000	11377
Neemuch	Included in Mandsaur		582	Included in Mandsaur		5096	Included in Mandsaur		11122
Morena	41000	27600	9700	20000	18100	4067	37000	24700	3798
Sheopur	Included in Morena		21412	Included in Morena		8892	Included in Morena		12750
Narsimhapur	9000	800	5894	8000	7100	5633	6000	7100	5726
Panna	32000	37500	44514	17000	18800	9320	23000	15600	6142
Raisen	17000	9500	5001	10000	5500	3742	11000	6100	5099
Rajgarh	29000	19100	17095	1000	6700	5505	12000	600	1138
Ratlam	10000	11700	9851	10000	12200	4989	27000	6600	9185
Rewa	6000	6900	6188	2000	2200	1342	4000	1800	1479
Sagar	22000	3700	12731	7000	200	1887	9000	100	1783
Satna	26000	25600	24089	13000	11500	11055	12000	11000	11213
Sehore	14000	2800	11808	4000	1300	0	5000	2500	0
Seoni	17000	15100	12575	9000	10600	10919	7000	7600	9980
Shahdol	6000	27900	22696	2000	18400	13945	2000	20000	23054
Umaria	Included in Shahdol		4596	Included in Shahdol		3952	Included in Shahdol		3060
Shajapur	16000	10800	5814	7000	9100	6154	10000	8200	7036
Shivpuri	38000	45100	50664	38000	33300	20566	77000	47600	18250
Sidhi	18000	22200	30096	12000	16200	14639	18000	20400	15453
Tikamgarh	10000	4800	4163	15000	6200	5131	21000	9700	10152
Ujjain	13000	8200	5250	3000	4300	3729	4000	2600	1520
Vidisha	17000	8000	5064	5000	4400	2415	3000	2800	2780
West Nimar(Khargone)	14000	11200	7230	8000	3000	4127	13000	17200	14301
Barwani	Included in West Nimar		2442	Included in West Nimar		1832	Included in West Nimar		6304
Madhya Pradesh	**693000**	**618500**	**559249**	**380000**	**340100**	**304325**	**494000**	**361000**	**311775**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Cultivable Waste Land			Fallow Land					
	Total			Current			Old		
	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99	1977-78	1988-89	1998-99
Balaghat	29000	24000	28028	13000	16200	13903	16000	12400	15526
Betul	43000	45200	49641	25000	33200	25332	33000	28200	30984
Bhind	10000	9400	9758	4000	5100	3559	3000	2700	4075
Bhopal	16000	9300	5744	1000	2800	1547	2000	1400	2849
Chhatarpur	112000	103500	80610	33000	48600	32233	53000	30700	40354
Chhindwara	36000	21500	19370	34000	32300	31583	37000	35600	28201
Damoh	36000	33100	17829	8000	12300	6522	14000	10400	8340
Datia	17000	13500	11789	3000	3500	3594	5000	3500	4006
Dewas	9000	3700	3022	2000	2000	529	5000	2200	1297
Dhar	29000	22600	19243	8000	5600	3129	9000	4100	3346
East Nimar (Khandwa)	6000	2300	598	8000	11300	8185	13000	7700	15005
Guna	120000	94000	86698	10000	9600	5532	12000	9400	7568
Gwalior	30000	25800	22546	7000	7700	3338	6000	6000	4075
Hoshangabad	41000	34100	29670	10000	15700	4953	19000	9200	9722
Harda	Included in Hoshangabad		7466	Included in Hoshangabad		1045	Included in Hoshangabad		2991
Indore	9000	5500	0	1000	2700	1340	2000	1400	3197
Jabalpur	64000	72000	22001	34000	49200	16448	49000	54000	16291
Katni	Included in Jabalpur		33410	Included in Jabalpur		20339	Included in Jabalpur		23576
Jhabua	12000	16200	27672	13000	7100	5175	9000	6000	4624
Mandla	40000	40100	15816	62000	67800	25499	75000	71700	24902
Dindori	Included in Mandla		13503	Included in Mandla		35586	Included in Mandla		31925
Mandsaur	62000	44000	21218	5000	2600	1196	4000	3000	1189
Neemuch	Included in Mandsaur		16800	Included in Mandsaur		549	Included in Mandsaur		568
Morena	98000	70400	17565	12000	9700	2309	15000	6100	3264
Sheopur	Included in Morena		43054	Included in Morena		4380	Included in Morena		5223
Narsimhapur	23000	22200	17253	7000	8700	4709	10000	5100	6403
Panna	72000	71900	59976	12000	19200	12049	23000	17200	12773
Raisen	38000	21100	13842	3000	3800	1204	5000	2100	2769
Rajgarh	42000	26400	23738	4000	4800	1584	9000	3000	3388
Ratlam	47000	30500	24025	4000	3300	1222	5000	2300	1655
Rewa	12000	10900	9009	20000	28500	20307	25000	27200	23105
Sagar	38000	4000	16401	9000	15100	7418	15000	13200	14130
Satna	51000	48100	46357	17000	18700	15450	21000	22400	15266
Sehore	23000	6600	11808	2000	8800	1059	3000	1200	2783
Seoni	33000	33300	33474	24000	30200	33081	39000	37400	28603
Shahdol	10000	66300	59695	61000	71500	47928	62000	80100	45242
Umaria	Included in Shahdol		11608	Included in Shahdol		18245	Included in Shahdol		17019
Shajapur	33000	28100	19004	3000	3000	1018	6000	1500	2075
Shivpuri	153000	126000	89480	24000	26200	20789	33000	14900	19365
Sidhi	48000	58800	60188	36000	32100	33039	30000	39600	25007
Tikamgarh	46000	20700	19446	13000	19200	14354	17000	20700	13211
Ujjain	20000	15100	10499	4000	3300	995	5000	2500	2202
Vidisha	25000	15200	10259	3000	3200	2106	5000	4200	2835
West Nimar(Khargone)	35000	31400	25658	6000	7200	2493	12000	3900	7643
Barwani	Included in West Nimar		10578	Included in West Nimar		1759	Included in West Nimar		2932
Madhya Pradesh	**1568000**	**1326800**	**1175349**	**545000**	**651800**	**498614**	**706000**	**604200**	**541504**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 6: LAND USE CLASSIFICATION IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Follow Land Total		
	1977-78	1988-89	1998-99
Balaghat	29000	28600	29429
Betul	58000	61400	56316
Bhind	7000	7800	7634
Bhopal	3000	4200	4396
Chhatarpur	86000	79300	72587
Chhindwara	71000	67900	59784
Damoh	22000	22700	14862
Datia	8000	7000	7600
Dewas	7000	4200	1826
Dhar	17000	9700	6475
East Nimar (Khandwa)	21000	19000	23190
Guna	22000	19000	13100
Gwalior	13000	13700	7413
Hoshangabad	29000	24900	14675
Harda		Included in Hoshangabad	4036
Indore	3000	4100	4537
Jabalpur	83000	103200	32739
Katni		Included in Jabalpur	43915
Jhabua	22000	13100	9799
Mandla	137000	139500	50401
Dindori		Included in Mandla	67511
Mandsaur	9000	5600	2385
Neemuch		Included in Mandsaur	1117
Morena	27000	15800	5573
Sheopur		Included in Morena	9603
Narsimhapur	17000	13800	11112
Panna	35000	36400	24822
Raisen	8000	5900	3973
Rajgarh	13000	7800	4972
Ratlam	9000	5600	2877
Rewa	45000	55700	43412
Sagar	24000	28300	21548
Satna	38000	41100	30716
Sehore	5000	10000	3842
Seoni	63000	67600	61684
Shahdol	123000	151600	93170
Umaria		Included in Shahdol	35264
Shajapur	9000	4500	3093
Shivpuri	57000	41100	40154
Sidhi	66000	71700	58046
Tikamgarh	30000	39900	27565
Ujjain	9000	5800	3197
Vidisha	8000	7400	4941
West Nimar(Khargone)	18000	11100	10136
Barwani		Included in West Nimar	4691
Madhya Pradesh	**1251000**	**1256000**	**1040118**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 7: WASTELANDS IN MADHYA PRADESH, 2000- NRSA IMAGERY

Table EL 7 lays special focus on the wastelands classifying them into various sub-categories according to the National Remote Sensing Agency (NRSA) imagery 2000. The table gives comprehensive and reliable data on different categories of wastelands providing credible information for decision making.

WASTELANDS

It is described as degraded land which can be brought under vegetative cover with reasonable effort, and which is currently under utilised and land which is deteriorating due to lack of appropriate water and soil management or on account of natural causes. Wastelands can result from inherent/ imposed constraints such as, by location, environment, chemical and physical properties of the soil or financial or management constraints.

GULLIED/ RAVINOUS LAND

The gullies are formed as a result of localized surface runoff affecting the friable unconsolidated material in the formation of perceptible channels resulting in undulating terrain. The gullies are the first stage of excessive land dissection followed by the networking, which leads to the development of ravinous land. The word 'ravine' is usually associated not with an isolated gully but a network of deep gullies formed generally in thick alluvium and entering a nearby river, flowing much lower than the surrounding high grounds. The ravines, are extensive systems of gullies developed along river courses.

LAND WITH OR WITHOUT SCRUB

They occupy (relatively) higher topography like uplands or high grounds with or without scrub. These lands are generally prone to degradation or erosion. These exclude hilly and mountainous terrain.

WATERLOGGED/ MARSHY AREA

Waterlogged land is that land where the water is at or near the surface and water stands for most of the year. Such lands usually occupy topographically low-lying areas. It excludes lakes, ponds and tanks. Marshy land is that which is permanently or periodically inundated by water and is characterised by vegetation, which includes grasses and weeds. Marshes are classified into salt/ brackish or fresh water depending on the salinity of water. These exclude Mangroves.

SALINE/ ALKALINE AREA

The salt affected land is generally characterised as the land that has adverse effect on the growth of most plants due to the action or presence of excess soluble or high exchangeable sodium. Alkaline land has an exchangeable sodium percentage (ESP) of about 15, which is generally considered as the limit between normal and alkali soils. The predominant salts are carbonates and bicarbonates of Sodium. Coastal saline soils may be with or without ingress or inundation by sea water.

SHIFTING CULTIVATION

It is the result of cyclic land use practice of felling of trees and burning of forest areas for growing crops. Such lands are also known as Jhum lands. This results in extensive loss of soil leading to land degradation.

DEGRADED NOTIFIED FOREST LAND

It is described as a forest where the vegetative (crown) density is less than 20 percent of the canopy cover. It is the result of both biotic and abiotic influences.

DEGRADED PASTURES/ GRAZING LAND

Pastureland is an area of land covered with natural grass along with other vegetation, often grown for fodder to feed cattle and other animals. Such lands are found in riverbeds, on uplands, hill slopes etc. Such lands can also be called as permanent pastures or meadows. Grazing lands are those where certain pockets of land are fenced for allowing cattle to graze. Overgrazing of these lands due to pressure of livestock and ruminants lead to their degradation.

Sandy area (inland and coastal)

These are areas, which have stabilized accumulations of sand in-situ or transported in coastal riverine or inland (desert) areas. These occur either in the form of sand dunes, beaches, channel (river/stream) islands etc.

Mining/Industrial Waste

It is an area associated with Mining or Industry with excavated material or waste dumps or storage dumps of earthen material or industrial material. Such waste dumps are some times covered with or without vegetation.

Barren rocky/ Stony waste/ Sheet rock area

It is defined as the rock exposures of varying lithology often barren and devoid of soil cover and vegetation and not suitable for cultivation. They occur amidst hill forests as openings or scattered as isolated exposures or loose fragments of boulders or as sheet rocks on plateau and plains. It includes quarry or gravel pit or brick kilns.

Snow covered/ Glacial area

It is defined as a solid form of water consisting of minute particles of ice. It includes permanently snow covered areas.

	Year	Madhya Pradesh	India
Wastelands as percentage of geographical area	2000	19.31	20.17
Share of India	9.32%		
As percentage of total wastelands			
Gullied/ Ravinous land	2000	12.33	3.22
Land with/ without scrub	2000	52.29	30.39
Waterlogged/ marshy land	2000	0.08	2.59
Saline/ Alkaline area	2000	0.27	3.21
Shifting cultivation area	2000	0.00	5.50
Degraded notified forest land	2000	29.72	22.03
Degraded Pastures/ Grazing Land	2000	0.45	4.07
Degraded land under plantation crop	2000	1.15	0.91
Sands Inland/ Coastal	2000	0.00	7.83
Mining/ Industrial Wasteland	2000	0.16	0.20
Barren/ Rocky area	2000	3.29	10.11
Steep/ Sloping area	2000	0.25	1.20
Snow/ Glacial area	2000	0.00	8.74

Source: Wasteland Atlas of India 2000.

EL 7: WASTELANDS IN MADHYA PRADESH, 2000- NRSA IMAGERY

District	Total Geographical Area	As Percentage of Total Geographical Area					
		Gullied/ Ravinous Land	Land with /without scrub	Waterlogged/ Marshy Land	Saline/Alkaline Area	Shifting Cultivation Area	Degraded Notifled Forest Land
Balaghat	9229.00	0.00%	4.72%	0.00%	0.00%	0.00%	1.67%
Betul	10043.00	0.01%	7.08%	0.00%	0.00%	0.00%	3.66%
Bhind	4459.00	25.42%	0.34%	0.70%	2.53%	0.00%	0.11%
Bhopal	2772.00	0.12%	18.94%	0.45%	0.00%	0.00%	4.68%
Chattarpur	8687.00	1.87%	11.99%	0.00%	0.00%	0.00%	3.12%
Chhindwara	11815.00	0.12%	7.08%	0.00%	0.00%	0.00%	8.19%
Damoh	7306.00	0.43%	17.30%	0.00%	0.00%	0.00%	7.78%
Datia	2038.00	12.37%	9.99%	0.10%	1.99%	0.00%	4.67%
Dewas	7020.00	2.89%	8.73%	0.00%	0.00%	0.00%	3.01%
Dhar	8153.00	1.50%	12.62%	0.00%	0.00%	0.00%	7.64%
East Nimar (Khandwa)	10779.00	0.28%	6.53%	0.00%	0.00%	0.00%	8.85%
Guna	11065.00	6.36%	11.66%	0.00%	0.00%	0.00%	14.55%
Gwalior	5214.00	6.00%	8.30%	0.00%	0.01%	0.00%	11.66%
Hoshangabad	10037.00	0.15%	6.53%	0.00%	0.00%	0.00%	2.40%
Harda				Included in Hoshangabad			
Indore	3898.00	5.20%	6.02%	0.00%	0.00%	0.00%	3.21%
Jabalpur	10160.00	1.22%	13.05%	0.00%	0.00%	0.00%	2.90%
Katni				Included in Jabalpur			
Jhabua	6782.00	0.00%	8.49%	0.00%	0.00%	0.00%	10.91%
Mandla	13269.00	0.07%	14.96%	0.01%	0.00%	0.00%	1.56%
Dindori				Included in Mandla			
Mandsaur	9791.00	3.49%	12.29%	0.00%	0.05%	0.00%	10.61%
Neemuch				Included in Mandsaur			
Morena	11594.00	8.86%	6.10%	0.00%	0.00%	0.00%	7.12%
Sheopur				Included in Morena			
Narsinghpur	5133.00	4.96%	6.95%	0.00%	0.00%	0.00%	4.12%
Panna	7135.00	0.39%	11.87%	0.00%	0.00%	0.00%	5.32%
Raisen	8466.00	1.31%	1.66%	0.00%	0.00%	0.00%	3.66%
Rajgarh	6154.00	5.17%	21.15%	0.00%	0.00%	0.00%	2.11%
Ratlam	4861.00	4.89%	20.26%	0.00%	0.02%	0.00%	5.98%
Rewa	6314.00	1.24%	7.11%	0.00%	0.00%	0.00%	1.26%
Sagar	10252.00	0.21%	13.91%	0.00%	0.00%	0.00%	6.08%
Satna	7502.00	0.54%	9.49%	0.00%	0.00%	0.00%	13.19%
Sehore	6578.00	0.00%	13.28%	0.00%	0.00%	0.00%	10.40%
Seoni	8758.00	0.00%	8.35%	0.00%	0.00%	0.00%	9.93%
Shahdol	14028.00	0.28%	5.21%	0.00%	0.00%	0.00%	1.52%
Umaria				Included in Shahdol			
Shajapur	6196.00	10.79%	22.72%	0.00%	0.00%	0.00%	0.71%
Shivpuri	10278.00	0.15%	13.69%	0.02%	0.00%	0.00%	5.89%
Sidhi	10526.00	0.52%	5.23%	0.00%	0.03%	0.00%	6.54%
Tikamgarh	5048.00	0.60%	26.93%	0.00%	0.00%	0.00%	7.08%
Ujjain	6091.00	9.04%	8.74%	0.00%	0.00%	0.00%	0.08%
Vidisha	7371.00	2.63%	7.12%	0.00%	0.00%	0.00%	2.93%
West Nimar (Khargone)	13450.00	0.04%	7.45%	0.00%	0.00%	0.00%	7.12%
Barwani				Included in West Nimar			
Madhya Pradesh	**308252.00**	**2.38%**	**10.10%**	**0.02%**	**0.05%**	**0.00%**	**5.74%**

Source: Wasteland Atlas of India, 2000, Ministry of Rural Development, Department of Land Resources, GoI National Remote Sensing Agency, Department of Space, GoI

EL 7: WASTELANDS IN MADHYA PRADESH, 2000- NRSA IMAGERY

District	As Percentage of Total Geographical Area							Total Wasteland Area	
	Degraded Pastures/ Grazing Land	Degraded Land under Plantation Crop	SandsInland/ Coastal Wasteland	Mining/ Industrial Area	Barren Rocky Area	Steep Sloping Area	Snow/ Glacial Area	Area (ha)	% of total area
Balaghat	0.00%	0.00%	0.00%	0.10%	0.05%	0.00%	0.00%	603.77	6.54%
Betul	1.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1218.24	12.13%
Bhind	0.00%	0.01%	0.00%	0.00%	0.10%	0.00%	0.00%	1302.58	29.21%
Bhopal	0.11%	0.00%	0.00%	0.06%	0.30%	0.00%	0.00%	683.78	24.67%
Chattarpur	0.00%	0.11%	0.00%	0.00%	0.63%	0.22%	0.00%	1558.20	17.94%
Chhindwara	0.00%	0.00%	0.00%	0.03%	0.04%	0.00%	0.00%	1826.33	15.46%
Damoh	0.00%	0.00%	0.00%	0.06%	0.00%	0.00%	0.00%	1867.30	25.56%
Datia	0.13%	0.00%	0.00%	0.00%	1.35%	0.00%	0.00%	623.62	30.60%
Dewas	0.05%	0.61%	0.00%	0.00%	0.13%	0.00%	0.00%	1081.93	15.41%
Dhar	0.12%	0.00%	0.00%	0.21%	1.18%	0.01%	0.00%	1899.57	23.30%
East Nimar (Khandwa)	0.00%	0.00%	0.00%	0.00%	0.09%	0.00%	0.00%	1697.69	15.75%
Guna	0.00%	1.52%	0.00%	0.03%	0.77%	0.00%	0.00%	3860.26	34.89%
Gwalior	0.00%	0.00%	0.00%	0.00%	0.72%	0.00%	0.00%	1391.54	26.69%
Hoshangabad	0.00%	0.00%	0.00%	0.00%	0.51%	0.01%	0.00%	962.97	9.59%
Harda					Included in Hoshangabad				
Indore	0.04%	0.30%	0.00%	0.02%	0.46%	0.03%	0.00%	596.23	15.30%
Jabalpur	0.19%	0.00%	0.00%	0.01%	0.05%	0.02%	0.00%	1771.00	17.43%
Katni					Included in Jabalpur				
Jhabua	0.22%	0.00%	0.00%	0.01%	0.84%	0.00%	0.00%	1388.76	20.48%
Mandla	0.00%	0.00%	0.00%	0.00%	0.38%	0.00%	0.00%	2255.25	17.00%
Dindori					Included in Mandla				
Mandsaur	0.18%	0.32%	0.01%	0.05%	1.69%	0.11%	0.00%	2818.60	28.79%
Neemuch					Included in Mandsaur				
Morena	0.00%	0.00%	0.00%	0.00%	0.59%	0.05%	0.00%	2634.53	22.72%
Sheopur					Included in Morena				
Narsinghpur	0.00%	2.55%	0.00%	0.00%	0.50%	0.00%	0.00%	979.22	19.08%
Panna	0.00%	0.00%	0.00%	0.00%	0.01%	0.32%	0.00%	1278.21	17.91%
Raisen	0.00%	0.84%	0.00%	0.00%	2.30%	0.08%	0.00%	834.55	9.86%
Rajgarh	0.00%	0.02%	0.00%	0.00%	1.10%	0.02%	0.00%	1819.51	29.57%
Ratlam	0.00%	0.45%	0.03%	0.00%	0.87%	0.00%	0.00%	1579.92	32.50%
Rewa	0.55%	0.00%	0.00%	0.00%	2.07%	0.45%	0.00%	800.50	12.68%
Sagar	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	2096.28	20.45%
Satna	0.00%	0.00%	0.00%	0.51%	1.57%	0.24%	0.00%	1915.52	25.53%
Sehore	0.24%	0.00%	0.00%	0.00%	0.04%	0.06%	0.00%	1579.83	24.02%
Seoni	0.00%	0.02%	0.00%	0.00%	0.15%	0.00%	0.00%	1615.67	18.45%
Shahdol	0.00%	0.00%	0.00%	0.00%	0.20%	0.00%	0.00%	1012.86	7.22%
Umaria					Included in Shahdol				
Shajapur	0.04%	0.00%	0.00%	0.00%	0.79%	0.00%	0.00%	2171.79	35.05%
Shivpuri	0.00%	0.00%	0.00%	0.00%	0.86%	0.03%	0.00%	2121.47	20.64%
Sidhi	0.00%	0.00%	0.00%	0.07%	0.47%	0.15%	0.00%	1368.85	13.00%
Tikamgarh	0.02%	0.33%	0.00%	0.00%	6.65%	0.02%	0.00%	2102.03	41.64%
Ujjain	0.09%	0.01%	0.00%	0.00%	0.09%	0.00%	0.00%	1099.57	18.05%
Vidisha	0.00%	2.39%	0.00%	0.00%	0.29%	0.00%	0.00%	1132.61	15.37%
West Nimar (Khargone)	0.00%	0.00%	0.00%	0.00%	0.03%	0.05%	0.00%	1976.46	14.69%
Barwani					Included in West Nimar				
Madhya Pradesh	**0.09%**	**0.22%**	**0.00%**	**0.03%**	**0.64%**	**0.05%**	**0.00%**	**59527.00**	**19.31%**

Source: Wasteland Atlas of India, 2000, Ministry of Rural Development, Department of Land Resources, GoI National Remote Sensing Agency, Department of Space, GoI

EL 8: LAND OWNERSHIP BY SOCIAL CATEGORIES, AVERAGE LANDHOLDING SIZE, GINI COEFFICIENT OF OPERATIONAL HOLDINGS- 1990, 1995 AND TENANCY STATUS, 1990

Table EL 8 provides information on the ownership of land by social categories. The gini-coefficient of ownership of operational holdings for 1990-1991 and 1995-96 are critical indicator of the level of inequality in the districts, primarily in rural areas. The information on the tenancy status of operational holdings is from the agriculture and land settlement statistics. The table also gives the share of land held by the scheduled castes and the scheduled tribes. The table also shows trends in average landholding size since 1981 in 5 yearly intervals, thus giving a comparative picture. It also gives percentage decline in the holdings across a 15 year period from 1980-81 to 1995-96.

GINI CO-EFFICIENT OF LAND OWNING

Gini coefficient of land owning is a measure that shows how close the size distribution of land holdings is to absolute equality or inequality. Named for Corrado Gini, the Gini coefficient is a ratio of the area between the 45º line and the Lorenz curve and the area of the entire triangle. As the coefficient approaches zero, the size distribution of land holdings approaches absolute equality. Conversely, as the coefficient approaches one, the size distribution of landholdings approaches inequality.

EL 8: LAND OWNERSHIP BY SOCIAL CATEGORIES, AVERAGE LANDHOLDING SIZE, GINI COEFFICIENT OF OPERATIONAL HOLDINGS- 1990, 1995 AND TENANCY STATUS, 1990

District	total Operational Land Holdings	Area under Operational Landholdings (Hectare)	Share of Others			
			Owners	Owners	Land	Land
	1995	19995	1990	1995	1990	1995
Balaghat	231953	313230	73.5%	73.6%	68.2%	69.3%
Betul	175986	509283	53.8%	54.3%	54.2%	54.8%
Bhind	156828	342728	83.2%	84.2%	88.5%	88.5%
Bhopal	48942	161745	81.5%	83.5%	88.2%	88.9%
Chhatarpur	209585	476483	75.6%	76.0%	82.7%	82.1%
Chhindwara	234035	545748	53.0%	53.2%	49.5%	50.9%
Damoh	141701	327363	73.1%	74.6%	81.3%	83.2%
Datia	55652	138962	75.4%	76.2%	82.8%	84.3%
Dewas	115023	426196	71.2%	73.5%	83.3%	83.4%
Dhar	170419	523635	39.2%	39.6%	53.3%	52.8%
East Nimar	152622	487290	66.7%	67.4%	69.7%	69.5%
Guna	228753	638329	70.1%	71.4%	79.9%	80.5%
Gwalior	114475	279794	76.5%	77.4%	82.7%	83.7%
Hoshangabad	136736	511587	77.2%	77.4%	84.7%	84.6%
Harda			Included with Hoshangabad			
Indore	92421	273580	82.0%	84.3%	91.3%	91.0%
Jabalpur	344869	572309	70.9%	69.5%	72.1%	71.0%
Katni			Included with Jabalpur			
Jhabua	168837	375959	6.5%	5.6%	6.8%	6.5%
Mandla	239521	564052	31.3%	30.6%	23.5%	23.2%
Dindori			Included with Mandla			
Mandsaur	228857	556864	78.0%	81.1%	85.2%	87.5%
Neemuch			Included with Mandsaur			
Morena	246339	435725	78.1%	79.1%	82.1%	82.7%
Sheopur			Included with Morena			
Narsimhapur	124752	313751	80.4%	79.5%	81.8%	83.6%
Panna	141395	286987	71.5%	71.7%	79.4%	78.6%
Raisen	123146	439595	76.9%	77.5%	84.6%	83.1%
Rajgarh	190880	463093	81.4%	81.3%	89.0%	87.5%
Ratlam	130461	348338	54.0%	56.0%	67.6%	68.1%
Rewa	210688	436870	89.8%	89.9%	95.7%	95.6%
Sagar	224035	559511	75.2%	76.1%	85.0%	84.4%
Satna	220963	396860	78.2%	78.4%	85.9%	85.4%
Sehore	118520	409690	75.5%	76.8%	83.8%	84.4%
Seoni	166024	439870	51.3%	51.3%	51.2%	50.1%
Shahdol	281827	593108	43.6%	44.0%	43.7%	43.6%
Umaria			Included with Shahdol			
Shajapur	152825	481406	77.0%	78.2%	88.2%	88.6%
Shivpuri	181365	476288	71.3%	72.8%	79.0%	79.4%
Sidhi	211877	428318	59.5%	61.2%	67.3%	66.7%
Tikamgarh	168604	285407	76.7%	76.7%	79.9%	79.5%
Ujjain	144424	523310	72.2%	74.5%	84.6%	85.4%
Vidisha	122593	539562	78.2%	79.9%	89.4%	89.8%
West Nimar	228270	695179	51.5%	50.6%	56.1%	54.7%
Barwani			Included with West Nimar			
Madhya Pradesh	**6636203**	**16578005**		**67.1%**		**72.3%**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 8: LAND OWNERSHIP BY SOCIAL CATEGORIES, AVERAGE LANDHOLDING SIZE, GINI COEFFICIENT OF OPERATIONAL HOLDINGS- 1990, 1995 AND TENANCY STATUS, 1990

District	Share of SC					
	Owners	Owners	Land	Land	SC Population share	Owners
	1990	1995	1990	1995	1991	1990
Balaghat	6.9%	6.8%	4.1%	4.2%	8.4%	19.6%
Betul	9.4%	9.3%	6.9%	7.2%	9.4%	36.9%
Bhind	16.8%	15.8%	11.5%	11.5%	18.4%	0.0%
Bhopal	16.7%	14.3%	10.7%	9.8%	14.2%	1.8%
Chhatarpur	20.7%	20.6%	14.3%	15.1%	20.4%	3.7%
Chhindwara	9.8%	10.0%	7.8%	8.2%	10.8%	37.1%
Damoh	15.0%	13.8%	9.0%	7.7%	16.3%	11.8%
Datia	23.8%	23.1%	16.8%	15.4%	17.1%	0.8%
Dewas	16.1%	14.9%	7.4%	7.3%	16.0%	12.7%
Dhar	5.0%	3.8%	2.7%	2.2%	7.4%	55.9%
East Nimar	9.0%	8.2%	6.5%	6.3%	11.4%	24.3%
Guna	17.5%	17.6%	12.0%	12.0%	16.2%	12.4%
Gwalior	19.9%	19.3%	15.0%	14.0%	17.9%	3.6%
Hoshangabad	9.9%	9.7%	5.7%	5.7%	14.5%	12.9%
Harda			Included with Hoshangabad			
Indore	11.8%	10.6%	5.4%	6.0%	15.4%	6.2%
Jabalpur	9.0%	12.7%	6.1%	11.8%	11.8%	20.2%
Katni			Included with Jabalpur			
Jhabua	1.9%	1.5%	1.2%	1.0%	4.5%	91.7%
Mandla	5.4%	5.8%	3.7%	4.1%	6.0%	63.3%
Dindori			Included with Mandla			
Mandsaur	14.6%	14.1%	9.5%	9.3%	15.3%	7.4%
Neemuch			Included with Mandsaur			
Morena	16.0%	15.3%	12.1%	11.6%	17.5%	5.8%
Sheopur			Included with Morena			
Narsimhapur	9.6%	10.0%	6.1%	6.5%	14.1%	10.0%
Panna	16.9%	17.1%	11.4%	12.1%	16.3%	11.6%
Raisen	11.6%	11.9%	6.8%	7.7%	14.6%	11.4%
Rajgarh	15.2%	15.1%	8.5%	9.6%	15.6%	3.4%
Ratlam	14.0%	13.2%	8.6%	8.4%	12.9%	32.0%
Rewa	5.5%	5.7%	1.8%	1.9%	13.9%	4.6%
Sagar	16.8%	16.1%	9.5%	9.9%	18.4%	8.0%
Satna	10.9%	11.3%	6.5%	7.1%	15.9%	10.9%
Sehore	17.2%	16.1%	10.6%	9.8%	17.2%	7.3%
Seoni	10.4%	9.6%	9.4%	8.9%	10.3%	38.3%
Shahdol	5.5%	5.5%	3.2%	3.5%	7.6%	50.9%
Umaria			Included with Shahdol			
Shajapur	20.3%	19.4%	10.2%	10.0%	19.7%	2.7%
Shivpuri	18.2%	17.8%	13.8%	13.7%	16.7%	10.5%
Sidhi	8.5%	8.6%	4.2%	4.3%	11.0%	32.0%
Tikamgarh	19.9%	19.9%	17.0%	17.3%	18.6%	3.4%
Ujjain	24.7%	22.7%	13.4%	12.7%	23.5%	3.1%
Vidisha	17.8%	16.7%	8.9%	8.5%	17.4%	4.0%
West Nimar	5.3%	5.0%	3.3%	3.3%	9.6%	43.3%
Barwani			Included with West Nimar			
Madhya Pradesh		**12.3%**		**8.3%**	**14.5%**	

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 8: LAND OWNERSHIP BY SOCIAL CATEGORIES, AVERAGE LANDHOLDING SIZE, GINI COEFFICIENT OF OPERATIONAL HOLDINGS- 1990, 1995 AND TENANCY STATUS, 1990

District	Share of ST				Ginie Coefficient of Land Holdings	
	Owners	Owners	Land	ST Population Share		
	1990	1995	1990	1995	1991	1990
Balaghat	19.6%	27.7%	26.5%	18.1%	0.720	0.552
Betul	36.4%	39.0%	38.0%	32.3%	0.544	0.526
Bhind	0.0%	0.0%	0.0%	0.8%	0.514	0.520
Bhopal	2.2%	1.1%	1.3%	3.1%	0.517	0.498
Chhatarpur	3.4%	3.0%	2.9%	3.8%	0.511	0.487
Chhindwara	36.8%	42.7%	41.0%	32.3%	0.518	0.496
Damoh	11.6%	9.7%	9.2%	10.4%	0.585	0.569
Datia	0.7%	0.3%	0.3%	2.1%	0.517	0.505
Dewas	11.6%	9.3%	9.3%	13.0%	0.535	0.539
Dhar	56.5%	44.0%	45.0%	45.2%	0.507	0.505
East Nimar	24.4%	23.8%	24.2%	26.8%	0.484	0.464
Guna	11.0%	8.2%	7.5%	10.8%	0.540	0.529
Gwalior	3.3%	2.3%	2.3%	4.0%	0.542	0.539
Hoshangabad	12.8%	9.6%	9.7%	16.2%	0.541	0.526
Harda			Included with Hoshangabad			
Indore	5.1%	3.3%	2.9%	8.0%	0.537	0.533
Jabalpur	17.8%	21.8%	17.1%	22.5%	0.567	0.533
Katni			Included with Jabalpur			
Jhabua	92.9%	92.0%	92.5%	66.6%	0.460	0.444
Mandla	63.6%	72.8%	72.7%	49.3%	0.557	0.541
Dindori			Included with Mandla			
Mandsaur	4.9%	5.3%	3.2%	4.8%	0.501	0.506
Neemuch			Included with Mandsaur			
Morena	5.6%	5.8%	5.7%	5.8%	0.493	0.488
Sheopur			Included with Morena			
Narsimhapur	10.5%	12.1%	9.9%	9.9%	0.506	0.503
Panna	11.3%	9.1%	9.3%	10.8%	0.524	0.520
Raisen	10.7%	8.6%	9.2%	11.5%	0.527	0.510
Rajgarh	3.6%	2.5%	2.9%	3.2%	0.536	0.534
Ratlam	30.8%	23.8%	23.4%	21.3%	0.512	0.507
Rewa	4.4%	2.5%	2.5%	11.0%	0.633	0.614
Sagar	7.8%	5.4%	5.7%	9.0%	0.566	0.552
Satna	10.3%	7.6%	7.5%	12.6%	0.584	0.568
Sehore	7.1%	5.6%	5.8%	8.2%	0.523	0.516
Seoni	39.0%	39.4%	41.0%	28.7%	0.562	0.544
Shahdol	50.6%	53.1%	52.9%	42.7%	0.590	0.559
Umaria			Included with Shahdol			
Shajapur	2.3%	1.6%	1.4%	2.5%	0.542	0.538
Shivpuri	9.4%	7.3%	6.9%	9.7%	0.487	0.499
Sidhi	30.2%	28.6%	29.0%	25.0%	0.611	0.584
Tikamgarh	3.5%	3.1%	3.2%	3.8%	0.473	0.469
Ujjain	2.8%	2.0%	1.8%	2.5%	0.536	0.533
Vidisha	3.4%	1.7%	1.7%	4.2%	0.555	0.554
West Nimar	44.5%	40.6%	41.9%	43.5%	0.471	0.466
Barwani			Included with West Nimar			
Madhya Pradesh	**20.6%**		**19.4%**	**19.9%**		

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 8: LAND OWNERSHIP BY SOCIAL CATEGORIES, AVERAGE LANDHOLDING SIZE, GINI COEFFICIENT OF OPERATIONAL HOLDINGS- 1990, 1995 AND TENANCY STATUS, 1990

District	Average Size of land Holdings				
	1980-81	1985-86	1990-91	1995-96	Change
Balaghat	1.9	1.6	1.5	1.4	-0.579
Betul	4.3	3.6	3.4	2.9	-1.448
Bhind	2.9	2.6	2.6	2.2	-0.754
Bhopal	5.7	4.5	3.0	3.3	-2.381
Chhatarpur	3.4	2.9	2.6	2.3	-1.090
Chhindwara	3.8	3.4	3.0	2.3	-1.464
Damoh	3.0	2.6	2.4	2.3	-0.726
Datia	3.5	3.0	2.8	2.5	-0.959
Dewas	6.0	5.0	4.6	3.7	-2.293
Dhar	5.0	4.1	3.7	3.1	-1.884
East Nimar	5.1	4.2	3.8	3.2	-1.925
Guna	4.5	3.5	3.4	2.8	-1.703
Gwalior	3.6	2.9	2.7	2.4	-1.135
Hoshangabad	5.6	4.6	4.0	3.7	-1.846
Harda			Included with Hoshangabad		
Indore	5.5	4.3	3.7	3.0	-2.529
Jabalpur	2.6	2.1	1.9	1.7	-0.908
Katni			Included with Jabalpur		
Jhabua	3.8	3.1	2.6	2.2	-1.548
Mandla	3.7	3.1	2.7	2.4	-1.297
Dindori			Included with Mandla		
Mandsaur	3.5	3.1	2.8	2.4	-1.082
Neemuch			Included with Mandsaur		
Morena	2.4	2.1	1.9	1.8	-0.627
Sheopur			Included with Morena		
Narsimhapur	3.6	2.9	2.7	2.5	-1.091
Panna	3.3	2.8	2.4	2.0	-1.238
Raisen	5.8	4.9	4.1	3.6	-2.229
Rajgarh	4.4	3.5	3.2	2.4	-1.933
Ratlam	3.9	3.2	3.0	2.7	-1.181
Rewa	3.4	2.8	2.4	2.1	-1.355
Sagar	3.4	3.0	2.9	2.5	-0.869
Satna	2.6	2.2	2.0	1.8	-0.759
Sehore	6.2	4.8	4.1	3.5	-2.696
Seoni	4.0	3.5	3.0	2.6	-1.340
Shahdol	3.0	2.7	2.4	2.1	-0.845
Umaria			Included with Shahdol		
Shajapur	4.8	4.2	3.7	3.2	-1.675
Shivpuri	3.9	3.2	3.0	2.6	-1.266
Sidhi	3.0	2.6	2.3	2.0	-0.932
Tikamgarh	2.0	1.9	1.9	1.7	-0.299
Ujjain	6.0	4.9	4.3	3.6	-2.376
Vidisha	6.7	5.3	5.0	4.4	-2.268
West Nimar	5.0	4.2	3.7	3.0	-1.967
Barwani			Included with West Nimar		
Madhya Pradesh					

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 8: LAND OWNERSHIP BY SOCIAL CATEGORIES, AVERAGE LANDHOLDING SIZE, GINI COEFFICIENT OF OPERATIONAL HOLDINGS- 1990, 1995 AND TENANCY STATUS, 1990

District	Teancy Status of Operational Holdings, 1991						Teancy Status of Operational Holdings, 1991				
	Self Operated Holdings		Wholly Leased in Holdings		Wholly Otherwise Operated Holdings		Partly Owned, Partly Leased in & Partly Otherwise Operated Holdings				
	Number	Area	Number	Area	Number	Area	Number	Owned Area	Leased in Area	Otherwise Area	Total Area
Balaghat	98.2%	98.0%	0.0%	0.0%	0.2%	0.1%	1.5%	1.7%	0.1%	0.1%	1.9%
Betul	1.0%	0.4%	71.1%	47.0%	27.9%	33.3%	42.3%	8.6%	13.0%	0.4%	1.5%
Bhind	89.2%	84.3%	0.0%	0.0%	0.8%	0.2%	10.0%	14.3%	0.0%	1.2%	15.5%
Bhopal	9.0%	7.2%	53.2%	39.7%	37.9%	44.0%	57.6%	12.2%	22.2%	1.0%	5.3%
Chhatarpur	95.0%	95.1%	0.0%	0.0%	2.3%	1.2%	3.1%	2.6%	0.0%	1.0%	3.6%
Chhindwara	96.1%	96.0%	0.4%	0.3%	1.2%	0.5%	2.2%	2.5%	0.4%	0.3%	3.2%
Damoh	97.9%	97.8%	0.0%	0.0%	0.6%	0.2%	1.5%	1.8%	0.0%	0.1%	2.0%
Datia	93.8%	92.2%	0.0%	0.0%	1.2%	0.3%	5.0%	6.5%	0.2%	0.7%	7.5%
Dewas	92.4%	92.0%	0.3%	0.2%	2.4%	0.6%	5.0%	9.1%	0.5%	0.7%	7.2%
Dhar	90.8%	90.5%	0.2%	0.2%	2.2%	0.7%	6.9%	6.8%	0.8%	1.1%	8.6%
East Nimar	94.4%	94.8%	0.6%	0.8%	3.1%	1.1%	2.0%	2.3%	0.7%	0.4%	3.4%
Guna	82.3%	75.8%	0.1%	0.0%	2.6%	1.1%	15.0%	20.1%	0.1%	2.9%	23.1%
Gwalior	90.9%	88.7%	0.1%	0.1%	1.6%	0.4%	7.5%	9.8%	0.1%	1.1%	11.0%
Hoshangabad	98.7%	98.4%	0.3%	0.3%	0.4%	0.2%	0.6%	0.7%	0.3%	0.1%	1.1%
Harda						Included with Hoshangabad					
Indore	97.7%	98.2%	0.2%	0.1%	0.0%	0.0%	2.1%	0.7%	1.0%	0.1%	1.7%
Jabalpur	99.3%	99.2%	0.1%	0.1%	0.4%	0.3%	0.3%	0.3%	0.0%	0.1%	0.4%
Katni						Included with Jabalpur					
Jhabua	77.2%	77.1%	0.3%	0.1%	6.3%	2.0%	16.2%	16.1%	0.4%	4.3%	20.8%
Mandla	90.1%	90.9%	0.0%	0.0%	3.6%	0.6%	6.3%	7.5%	0.0%	1.1%	8.5%
Dindori						Included with Mandla					
Mandsaur	82.8%	77.7%	0.3%	0.2%	2.8%	1.0%	14.1%	17.8%	0.2%	3.0%	21.1%
Neemuch						Included with Mandsaur					
Morena	90.0%	87.8%	0.0%	0.1%	3.1%	1.5%	6.8%	8.9%	0.1%	1.7%	10.7%
Sheopur						Included with Morena					
Narsimhapur	98.8%	98.5%	0.0%	0.0%	0.9%	1.2%	0.2%	0.2%	0.0%	0.1%	0.3%
Panna	95.8%	96.2%	0.0%	0.0%	2.1%	0.9%	2.1%	2.3%	0.0%	0.6%	2.8%
Raisen	5.8%	3.9%	69.4%	55.3%	24.1%	36.4%	51.5%	7.5%	16.6%	0.5%	5.2%
Rajgarh	1.7%	0.6%	52.1%	25.8%	46.3%	60.1%	63.3%	15.2%	20.6%	0.5%	4.9%
Ratlam	87.9%	87.2%	0.3%	0.2%	2.3%	0.5%	9.6%	10.1%	0.9%	1.1%	12.1%
Rewa	98.8%	97.9%	0.0%	0.0%	0.4%	0.1%	0.8%	1.7%	0.0%	0.2%	2.0%
Sagar	97.6%	95.8%	0.0%	0.0%	0.6%	0.2%	1.7%	3.4%	0.1%	0.5%	3.9%
Satna	97.2%	97.5%	0.0%	0.0%	1.6%	0.7%	1.2%	1.4%	0.1%	0.3%	1.8%
Sehore	2.7%	1.8%	54.9%	34.1%	42.4%	54.4%	86.0%	10.9%	22.6%	1.0%	9.1%
Seoni	95.6%	95.4%	0.1%	0.1%	0.7%	0.2%	3.6%	3.9%	0.1%	0.4%	4.4%
Shahdol	82.8%	87.2%	0.0%	0.0%	4.9%	1.7%	12.4%	9.3%	0.0%	1.7%	11.1%
Umaria						Included with Shahdol					
Shajapur	91.5%	87.9%	0.4%	0.3%	0.8%	0.2%	7.3%	10.2%	0.4%	1.0%	11.6%
Shivpuri	85.9%	80.9%	0.1%	0.0%	1.8%	0.6%	12.2%	15.9%	0.4%	2.1%	18.5%
Sidhi	77.2%	79.2%	0.1%	0.1%	10.9%	5.4%	11.8%	12.0%	0.0%	3.3%	15.3%
Tikamgarh	93.8%	94.8%	0.0%	0.0%	2.9%	1.5%	3.3%	2.8%	0.0%	1.0%	3.7%
Ujjain	95.9%	94.5%	0.3%	0.1%	0.4%	0.2%	3.5%	4.3%	0.5%	0.3%	5.1%
Vidisha	1.7%	0.9%	79.4%	63.1%	18.6%	31.2%	50.3%	4.0%	10.9%	2.6%	28.7%
West Nimar	97.7%	97.7%	0.1%	0.1%	1.2%	0.8%	0.9%	1.0%	0.2%	0.2%	1.4%
Barwani						Included with West Nimar					
Madhya Pradesh	**92.4%**	**90.6%**	**0.2%**	**0.2%**	**1.9%**	**0.8%**	**5.5%**	**7.0%**	**0.2%**	**1.2%**	**8.4%**

Source: Commissioner of Land Records, Madhya Pradesh, Gwalior

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

Table EL 9 gives the Area, Production, Yield and per capita availability of Cereals, Pulses, Food Grains and Oilseeds for the years 1978-79, 1988-89 and 1998-99. Area, Production and Yields for Kharif and Rabi Crops on the whole and the per capita production of Cereals, Pulses Food Grains and Oilseeds is given in the Table.

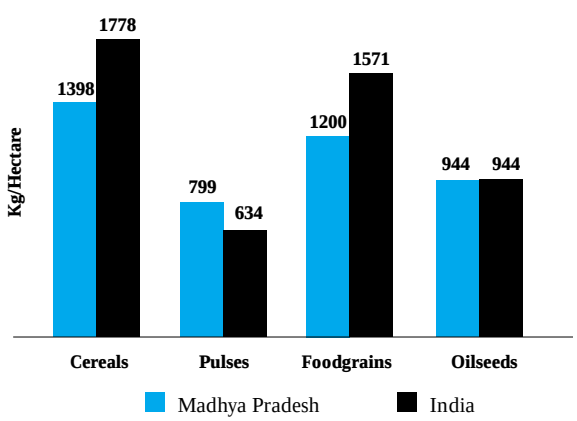
YIELD:

Yield of any crop group is obtained by dividing the production in kgs. by the area in hectares.

PER CAPITA PRODUCTION

Per capita production of any crop group is obtained by dividing the production in kgs. by the total population.

Yields of crops 1998-99: Madhya Pradesh and India



	Year	Madhya Pradesh	India
Cereals			
Area ('000 hectares)	1998-99	8537.2	106100
Production ('000 tonnes)		11933.5	188600
Share of India		6.33%	
Yield (kg/hectare)		1397.8	1778
Pulses			
Area	1998-99	4222.2	23500
Production		3374.9	14900
Share of India		22.65%	
Yield		799.3	634
Foodgrains			
Area	1998-99	12759.4	129600
Production		15308.4	203500
Share of India		7.52%	
Yield		1199.8	1571
Oilseeds			
Area	1998-99	5765.8	26200
Production		5440.9	24700
Share of India		22.03%	
Yield		943.7	944

Source: Agricultural Statistics 2000, Directorate of Agriculture, Madhya Pradesh for M.P. and Indian Economic Survey, 2000 for India

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Geographical uptil 1990	Geographical Area Areaafter formation of new districts	Major Radi Crops			Major Rabi Crops		
			Area (000 Hectares	Production (000 Tonnes)	Yield (Kg per Hecater)	Area ('000 Hecater)	Production ('000 tonnes)	Yield (Kg per Hecatre)
			1998-99	1998-99	1998-99	1998-99	1998-99	1998-99
Balaghat	922300	924500	272.2	363.9	1336.9	66.3	40.7	613.9
Betul	1007800	1007800	378.7	220	580.9	138.7	165.3	1191.8
Bhind	445200	445204	75.7	82.83	1094.2	272.5	355.9	1306.1
Bhopal	270800	277880	84.7	65.8	776.9	125.2	174.5	1393.8
Chhatarpur	863100	863036	173.8	87.2	501.7	275.3	395.3	1435.9
Chhindwara	1184900	1184923	441.2	350.1	793.5	143.4	242.4	1690.4
Damoh	728600	728583	152.2	97.9	643.2	228.2	203.3	890.9
Datia	203500	263959	37.6	27.9	742.0	162.4	235.5	1450.1
Dewas	700300	700812	328.5	368.5	1121.8	214.7	375.2	1747.6
Dhar	819500	819541	468	398.6	851.7	218.9	384.7	1757.4
East Nimar (Khandwa)	1117200	1118357	401.1	212.8	530.5	101.1	167.7	1658.8
Guna	1098200	1098160	215.5	163.5	758.7	412.6	453.3	1098.6
Gwalior	521900	456449	51	77.8	1525.5	198.1	322.5	1628.0
Hoshangabad	999300	668689	230.8	209.6	908.1	231.6	402.1	1736.2
Harda		330579	163.8	141.9	866.3	108.9	197.9	1817.3
Indore	383100	383097	225.9	272.6	1206.7	169.9	384.5	2263.1
Jabalpur	1012500	519757	139.1	90	647.0	220.4	207.9	943.3
Katni		493015	135.9	101.1	743.9	125.1	129.6	1036.0
Jhabua	675700	675716	350.6	264.4	754.1	103.6	132.6	1279.9
Mandla	946400	552098	167.4	105.5	630.2	91.8	63.8	695.0
Dindori		412039	204.3	129.9	635.8	103.1	65.0	630.5
Mandsaur	1326000	912455	298.6	400.7	1341.9	163.5	256.6	1569.4
Neemuch		393915	153.7	158.3	1029.9	103.5	159.9	1544.9
Morena	1168300	501686	77.2	100.2	1297.9	233.0	469.5	2015.0
Sheopur		666650	73.3	84.6	1154.2	124.7	292.1	2342.4
Narsimhapur	513600	513651	165.7	207	1249.2	236.3	322.0	1362.7
Panna	702900	702924	97.7	54.5	557.8	183.0	150.5	822.4
Raisen	848700	848746	161.8	184.3	1139.1	370.8	418.8	1129.4
Rajgarh	611700	616300	349	426.9	1223.2	170.5	249.8	1465.1
Ratlam	486400	486474	272.8	403.9	1480.6	171.9	331.4	1927.9
Rewa	628800	628745	218.8	123.5	564.4	275.4	282.4	1025.4
Sagar	1023200	1022759	204.3	116.7	571.2	440.5	418.3	949.6
Satna	742400	742432	184.5	90.3	489.4	296.0	329.7	1113.9
Sehore	656300	656368	268.1	280.3	1045.5	257.3	421.4	1637.8
Seoni	870800	875401	283.5	208.5	735.4	173.2	115.3	665.7
Shahdol	1386000	935677	334.7	195.2	583.2	89.6	50.1	559.2
Umaria		450329	89.2	50.7	568.4	52.0	32.3	621.2
Shajapur	617800	617836	381.8	450.9	1181.0	256.2	414.1	1616.3
Shivpuri	1017300	1017346	195.4	169.4	866.9	285.6	377.8	1322.8
Sidhi	1039200	1039194	320	187.8	586.9	183.0	131.5	718.6
Tikamgarh	504000	504002	175.5	153.2	872.9	188.0	321.5	1710.1
Ujjain	611600	609874	430.5	587.3	1364.2	315.5	584.1	1851.3
Vidisha	730200	730197	125.9	111.6	886.4	481.6	602.6	1251.2
West Nimar (Khargone)	1348500	648302	389.6	190.8	489.7	69.3	133.1	1920.6
Barwani		700201	223	135.9	609.4	41.9	78.1	1864.0
Non Reported			97.6	58.1		16.1	4.4	
Madhya Pradesh	**30734000**	**30745658**	**10270.2**	**8962.43**	**872.7**	**8890.2**	**12047.0**	**1355.1**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Cereals								
	Area ('000 Hectares	Production ('000 tonnes)	Yield (Kg per Hectares	Area (000 Hectares	Production ('000 tonnes)	Yield (Kg per Hecater)	Area ('000 Hectares)	Production ('000 tonnes)	Yield (Kg per Hecatre)
	1978-79	1978-79	1978-79	1988-89	1988-89	1988-89	1998-99	1998-99	1998-99
Balaghat	271	248	915	281.9	385	1366	279.3	371.2	1329.0
Betul	272.4	83.7	307	262.6	179.1	682	244.7	249.5	1019.6
Bhind	188.8	233.5	1237	180.5	297.2	1647	137.1	242.1	1766.1
Bhopal	94.7	70.3	742	88.1	108.9	1236	83.3	136.2	1635.1
Chhatarpur	220	213.9	972	204.4	215.6	1055	197.5	330.8	1674.9
Chhindwara	275	109.8	399	297.2	334.8	1127	296.6	355.4	1198.2
Damoh	185.8	143.7	773	165.5	117.3	709	161.2	178.7	1108.6
Datia	70.6	60	850	65.7	88.5	1347	79.1	156.7	1981.0
Dewas	172.1	149.6	869	175.5	245.7	1400	144.3	308.3	2136.5
Dhar	222.2	180.5	812	246.3	322.8	1311	260.6	450.7	1729.5
East Nimar (Khandwa)	186.2	124.4	668	194.6	139.3	716	176.0	237.4	1348.9
Guna	365.5	247.3	677	322.7	266.2	825	269.2	319.1	1185.4
Gwalior	150.4	170.4	1133	143.1	284.6	1989	134.0	303.3	2263.4
Hoshangabad	197.9	135.8	686	205	256	1249	171.4	345.6	2016.3
Harda				Included in Hoshangabad			82.7	167.9	2030.2
Indore	135.8	122.9	905	142.1	247.6	1742	132.3	357.5	2702.2
Jabalpur	381.6	245.5	643	337.2	251.3	745	182.7	192.6	1054.2
Katni				Included in Jabalpur			208.1	199.9	960.6
Jhabua	193	111.1	576	218.6	218.8	1001	223.0	287.1	1287.4
Mandla	380.6	202.5	532	363.5	198.1	545	190.5	136.3	715.5
Dindori				Included in Mandla			208.7	152.6	731.2
Mandsaur	307.8	317.9	1033	306	469.8	1535	140.4	278.7	1985.0
Neemuch				Included in Mandsaur			69.7	143.5	2058.8
Morena	220.3	291	1321	194.9	420.3	2156	143.2	363.3	2537.0
Sheopur				Included in Morena			82.1	235.5	2868.5
Narsimhapur	85.1	75.5	887	83.7	118.5	1416	100.3	164.4	1639.1
Panna	163.5	109.7	671	158.4	130.5	824	157.0	134.1	854.1
Raisen	179.9	166.9	928	180.7	229.6	1271	186.2	252.9	1358.2
Rajgarh	229.3	183.4	800	189.9	169	890	179.3	272.5	1519.8
Ratlam	150	118.5	790	164.2	230.4	1403	146.1	344.5	2358.0
Rewa	340.3	191.3	562	316.3	202.9	641	340.4	297.4	873.7
Sagar	319.2	260.1	815	287.2	191.6	667	245.9	298.1	1212.3
Satna	322.4	250.5	777	307.3	206	670	302.1	326.8	1081.8
Sehore	184.7	140	758	161.4	212	1314	167.3	309.1	1847.6
Seoni	256	113.3	443	258.2	203.9	790	261.6	227.2	868.5
Shahdol	418.9	243	580	396.4	253.3	639	331.8	212.5	640.4
Umaria				Included in Shahdol			105.3	69.9	663.8
Shajapur	211.4	216.1	1022	210.8	291.5	1383	173.5	343.5	1979.8
Shivpuri	218	147.5	677	192.1	259.1	1349	174.0	278.3	1599.4
Sidhi	322.4	181.2	562	316.4	155.8	492	362.6	260.3	717.9
Tikamgarh	185.6	203.8	1098	176.5	248	1405	163.1	289.8	1776.8
Ujjain	256.4	222.5	868	252.1	350.9	1392	189.3	501.4	2648.7
Vidisha	318.4	258.2	811	265.3	239.6	903	243.5	368.1	1511.7
West Nimar (Khargone)	287.9	196	681	313.3	339.1	1082	186.4	264.3	1417.9
Barwani				Included in West Nimar			129.8	159.4	1228.0
Non Reported	90.3	25.6		94.1	59.1		94.0	59.1	
Madhya Pradesh	**9031.4**	**6764.9**	**749.0**	**8719.7**	**8981.9**	**1030.1**	**8537.2**		**1397.8**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Cereals		Pulses					
	Rank in Production	Rank in Yield	Area ('000 Hectares)	Production ('000 tonnes)	Yield (Kg per Hecatre	Area ('000 Hecater)	Pruduction ('000 tonnes)	Yield (Kg per Hecatre)
	1998-99	1998-99	1978-79	1978-79	1978-79	1988-89	1988-89	1988-89
Balaghat	3	27	51.2	13.0	253.9	42.7	18.3	429.0
Betul	27	36	103.0	22.5	218.4	76.8	38.8	505.0
Bhind	28	16	120.7	93.7	776.3	113.8	102.2	898.0
Bhopal	43	20	31.9	20.1	630.1	37.3	29.8	799.0
Chhatarpur	11	18	87.6	49.9	569.6	106.1	64.7	610.0
Chhindwara	7	31	147.1	43.2	293.7	104.8	146.6	1399.0
Damoh	35	33	78.9	35.6	451.2	97.7	47.0	481.0
Datia	39	12	49.7	24.6	495.0	55.4	43.9	792.0
Dewas	15	7	54.7	30.4	555.8	46.6	40.1	861.0
Dhar	2	17	139.6	58.0	415.5	107.3	47.1	439.0
East Nimar (Khandwa)	29	26	74.6	23.1	309.7	83.9	43.3	516.0
Guna	13	32	98.4	53.1	539.6	168.1	94.2	560.0
Gwalior	16	6	70.6	38.7	548.2	66.0	58.2	882.0
Hoshangabad	8	10	106.3	65.5	616.2	133.1	122.5	920.0
Harda	36	9			Included in Hoshangabad			
Indore	6	2	74.7	47.2	631.9	54.4	50.9	936.0
Jabalpur	34	35	134.0	59.2	441.8	126.4	78.1	618.0
Katni	33	37			Included in Jabalpur			
Jhabua	20	28	114.6	37.3	325.5	114.6	51.5	449.0
Mandla	42	43	51.2	19.3	377.0	42.3	21.2	501.0
Dindori	40	41			Included in Mandla			
Mandsaur	21	11	141.3	93.0	639.1	229.2	117.3	512.0
Neemuch	41	8			Included in Mandsaur			
Morena	5	4	94.3	63.5	673.4	42.0	46.8	1114.0
Sheopur	30	1			Included in Morena			
Narsimhapur	37	19	175.9	106.1	603.2	182.3	146.9	806.0
Panna	44	40	40.1	20.9	521.2	51.9	31.2	601.0
Raisen	26	25	163.9	102.6	626.0	184.7	146.7	794.0
Rajgarh	23	22	58.9	31.3	531.4	97.4	77.1	792.0
Ratlam	9	5	84.7	37.6	443.9	100.2	56.7	566.0
Rewa	18	38	78.9	40.3	510.8	82.0	45.1	550.0
Sagar	17	30	104.9	57.6	549.1	134.5	55.4	412.0
Satna	12	34	58.6	22.0	375.4	66.7	35.6	534.0
Sehore	14	14	73.7	41.8	567.2	88.5	75.7	855.0
Seoni	31	39	74.0	23.5	317.6	65.0	37.1	571.0
Shahdol	32	45	51.3	17.4	339.2	48.5	19.4	400.0
Umaria	45	44			Included in Shahdol			
Shajapur	10	13	75.3	41.5	551.1	98.8	85.3	863.0
Shivpuri	22	21	66.2	29.9	451.7	96.7	73.0	755.0
Sidhi	25	42	78.9	37.6	476.6	79.4	44.3	558.0
Tikamgarh	19	15	41.6	21.3	512.0	63.9	45.3	709.0
Ujjain	1	3	136.7	50.9	372.3	111.2	59.9	539.0
Vidisha	4	23	128.8	77.1	598.6	204.9	124.0	605.0
West Nimar (Khargone)	24	24	132.6	31.9	240.6	108.0	46.0	426.0
Barwani	38	29			Included in West Nimar			
Non Reported			11.7	2.7	230.8	10.2	2.2	
Madhya Pradesh			**3461.1**	**1682.2**	**486.0**	**3723.3**	**2469.4**	**663.2**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Foodgrains								
	Area ('000 Hectares)	Production ('000 tonnes)	Yield (Kg per Hectares)	Rank in Production	Rank in Yield	Area ('000 Hecater)	Production ('000 tonnes)	Yield (Kg per hecatre)	Area ('000 Hectares
	1998-99	1998-99	1998-99	1998-99	1998-99	1978-79	1978-79	1978-79	1988-89
Balaghat	33.0	18.0	545.5	39	36	322.2	261.0	810.1	324.6
Betul	69.4	33.4	481.3	35	38	375.4	106.2	282.9	339.4
Bhind	79.7	67.0	840.7	22	21	309.5	327.2	1057.2	294.3
Bhopal	47.2	43.2	915.3	30	15	126.6	90.4	714.1	125.4
Chhatarpur	147.4	108.4	735.4	9	25	307.6	263.8	857.6	310.5
Chhindwara	84.6	80.5	951.5	17	13	422.1	153.0	362.5	402.0
Damoh	122.8	70.1	570.8	21	35	264.7	179.3	677.4	263.2
Datia	97.1	87.5	901.1	13	17	120.3	84.6	703.2	121.1
Dewas	105.0	105.8	1007.6	10	9	226.8	180.0	793.7	222.1
Dhar	91.4	53.1	581.0	27	33	361.8	238.5	659.2	353.6
East Nimar (Khandwa)	64.4	45.3	703.4	29	26	260.8	147.5	565.6	278.5
Guna	218.7	198.6	908.1	2	16	463.9	300.4	647.6	490.8
Gwalior	40.5	35.1	866.7	34	19	221.0	209.1	946.2	209.1
Hoshangabad	80.2	84.0	1047.4	16	7	304.2	201.3	661.7	338.1
Harda	34.8	40.6	1166.7	31	2		Included in Hoshangabad		
Indore	47.6	38.6	810.9	33	22	210.5	170.1	808.1	196.5
Jabalpur	123.5	76.7	621.1	18	31	515.6	304.7	591.0	463.6
Katni	38.3	24.6	642.3	36	29		Included in Jabalpur		
Jhabua	164.4	72.0	438.0	20	42	307.6	148.4	482.4	333.2
Mandla	37.7	15.6	413.8	41	43	431.8	221.8	513.7	405.8
Dindori	34.8	16.0	459.8	40	39		Included in Mandla		
Mandsaur	96.0	86.1	896.9	15	18	449.1	410.9	914.9	535.2
Neemuch	59.8	62.7	1048.5	25	6		Included in Mandsaur		
Morena	18.6	21.1	1134.4	37	4	314.6	354.5	1126.8	236.9
Sheopur	154.4	156.1	1011.0	5	8		Included in Morena		
Narsimhapur	168.9	185.8	1100.1	4	5	261.0	181.6	695.8	266.0
Panna	10.2	2.2	215.7	45	45	203.6	130.6	641.5	210.3
Raisen	95.5	60.1	629.3	26	30	343.8	269.5	783.9	365.4
Rajgarh	204.3	193.3	946.2	3	14	288.2	214.7	745.0	287.3
Ratlam	108.9	105.6	969.7	11	11	234.7	156.1	665.1	264.4
Rewa	91.8	73.6	801.7	19	23	419.2	231.6	552.5	398.3
Sagar	100.5	87.1	866.7	14	20	424.1	317.7	749.1	421.7
Satna	205.3	134.0	652.7	6	28	381.0	272.5	715.2	374.0
Sehore	111.1	65.0	585.1	23	32	258.4	181.8	703.6	249.9
Seoni	110.6	129.3	1169.1	7	1	330.1	136.8	414.4	323.2
Shahdol	69.2	40.0	578.0	32	34	470.2	260.4	553.8	444.9
Umaria	138.8	94.8	683.0	12	27		Included in Shahdol		
Shajapur	40.4	18.1	448.0	38	41	286.7	257.6	898.5	309.6
Shivpuri	11.8	13.5	1144.1	43	3	284.2	177.4	624.2	288.8
Sidhi	130.8	125.9	962.5	8	12	401.3	218.8	545.2	395.8
Tikamgarh	88.8	46.9	528.2	28	37	227.2	225.1	990.8	240.4
Ujjain	85.4	63.4	742.4	24	24	393.1	273.4	695.5	363.3
Vidisha	18.9	8.6	455.0	44	40	447.2	335.3	749.8	470.2
West Nimar (Khargone)	250.9	249.7	995.2	1	10	420.5	227.9	542.0	421.3
Barwani	37.9	14.7	387.9	42	44		Included in West Nimar		
Non Reported	50.9	23.2				102.0	28.3		104.3
Madhya Pradesh	**4222.2**	**3374.9**	**799.3**			**12492.6**	**8449.8**	**676.4**	**12443.0**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Foodgrains						
	Production ('000 tonnes)	Yield (Kg per Hectares)	Area ('000 Production	Production Y ield	Yield (Kg per Hecater)	Rank in Production	Rank in yield
	1998-99	1998-99	1998-99	1998-99	1978-79	1978-79	1988-89
Balaghat	403.3	1242.0	312.3	389.2	1246	17	24
Betul	217.9	642.0	314.1	282.9	901	29	34
Bhind	399.4	1357.0	216.8	309.1	1426	26	15
Bhopal	138.7	1106.0	130.5	179.4	1375	41	18
Chhatarpur	280.3	903.0	344.9	439.2	1273	7	22
Chhindwara	481.4	1198.0	381.2	435.9	1143	9	27
Damoh	164.3	624.0	284.0	248.8	876	34	36
Datia	132.4	1093.0	176.2	244.2	1386	35	17
Dewas	285.8	1287.0	249.3	414.1	1661	13	9
Dhar	369.9	1046.0	352.0	503.8	1431	4	14
East Nimar (Khandwa)	182.6	656.0	240.4	282.7	1176	30	26
Guna	360.4	734.0	487.9	517.7	1061	3	29
Gwalior	342.8	1639.0	174.5	338.4	1939	25	4
Hoshangabad	378.5	1119.0	251.6	429.6	1707	11	8
Harda		Included in Hoshangabad	117.5	208.5	1774	38	6
Indore	298.5	1519.0	179.9	396.1	2202	15	3
Jabalpur	329.4	711.0	306.2	269.3	879	31	35
Katni		Included in Jabalpur	246.4	224.5	911	37	33
Jhabua	270.3	811.0	387.4	359.1	927	22	32
Mandla	219.3	540.0	228.2	151.9	666	43	42
Dindori		Included in Mandla	243.5	168.6	692	42	40
Mandsaur	587.1	1097.0	236.4	364.8	1543	21	12
Neemuch		Included in Mandsaur	129.5	206.2	1592	39	10
Morena	467.1	1972.0	161.8	384.4	2376	19	2
Sheopur		Included in Morena	93.9	249.0	2652	33	1
Narsimhapur	265.4	998.0	269.2	350.2	1301	24	21
Panna	161.7	769.0	252.5	194.2	769	40	39
Raisen	376.3	1030.0	390.5	446.2	1143	6	28
Rajgarh	246.1	857.0	288.2	378.1	1312	20	20
Ratlam	287.1	1086.0	237.9	418.1	1757	12	7
Rewa	248.0	623.0	440.9	384.5	872	18	37
Sagar	247.0	586.0	451.2	432.1	958	10	30
Satna	241.6	646.0	413.2	391.8	948	16	31
Sehore	287.7	1151.0	277.9	438.4	1578	8	11
Seoni	241.0	746.0	330.8	267.2	808	32	38
Shahdol	272.7	613.0	372.2	230.6	620	36	44
Umaria		Included in Shahdol	124.2	78.5	632	44	43
Shajapur	376.8	1217.0	327.9	499.6	1524	5	13
Shivpuri	332.1	1150.0	304.8	404.2	1326	14	19
Sidhi	200.1	506.0	451.4	307.2	681	27	41
Tikamgarh	293.3	1220.0	248.5	353.2	1421	23	16
Ujjain	410.8	1131.0	328.1	596.2	1817	2	5
Vidisha	363.6	773.0	494.4	617.8	1250	1	23
West Nimar (Khargone)	385.1	914.0	237.3	287.5	1212	28	25
Barwani		Included in West Nimar	167.7	174.1	1038	42	30
Non Reported	61.3		104.2	61.3			
Madhya Pradesh	**11607.1**	**932.8**	**12759.4**	**15308.4**	**1199.8**		

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Oilseeds								
	Area ('000 Hectares)	Production ('000 tonnes)	Yield (Kg per Hectares)	Area ('000 Hectares)	Production ('000 tonnes)	Yield (Kg per Hecatre)	Area '(000 Hectares)	Production ('000 tonnes)	Yield (Kg per Hecatre)
	1978-79	1978-79	1978-79	1988-89	1988-89	1988-89	1998-89	1998-89	1998-89
Balaghat	44.1	7.4	167.8	31.3	10.1	323.0	24.9	9.7	389.6
Betul	28.8	6.7	232.6	121.6	83.8	689.0	198.9	90.1	453.0
Bhind	41.6	11.3	271.6	60.5	37.0	612.0	131.3	129.4	985.5
Bhopal	3.8	2.3	605.3	36.2	27.1	749.0	79.1	60.2	761.1
Chhatarpur	36.2	7.2	198.9	47.1	17.8	378.0	104.1	43.0	413.1
Chhindwara	72.7	12.7	174.7	133.6	120.6	903.0	182.6	119.6	655.0
Damoh	25.0	6.9	276.0	33.5	13.9	415.0	96.4	52.3	542.5
Datia	7.9	1.4	177.2	13.2	6.0	455.0	22.4	15.3	683.0
Dewas	23.6	26.9	1139.8	109.7	90.3	823.0	260.7	322.8	1238.2
Dhar	65.3	42.2	646.2	122.2	104.5	855.0	261.4	279.0	1067.3
East Nimar (Khandwa)	29.5	9.6	325.4	42.3	27.9	660.0	139.0	89.3	642.4
Guna	39.1	14.6	373.4	67.9	48.4	713.0	139.7	97.9	700.8
Gwalior	30.7	7.9	257.3	62.9	53.1	844.0	73.3	57.1	779.0
Hoshangabad	71.2	18.8	264.0	167.7	119.8	714.0	210.7	181.8	862.8
Harda		Included in Hoshangabad					151.2	131.1	867.1
Indore	12.9	20.0	1550.4	120.0	95.4	795.0	215.6	260.2	1206.9
Jabalpur	34.9	8.0	229.2	32.8	11.1	338.0	53.2	28.4	533.8
Katni		Included in Jabalpur					14.6	6.1	417.8
Jhabua	28.2	12.8	453.9	26.0	26.7	1027.0	50.4	37.8	750.0
Mandla	81.9	23.8	290.6	77.0	29.0	377.0	30.0	14.4	480.0
Dindori		Included in Mandla					63.9	26.3	411.6
Mandsaur	52.3	28.7	548.8	77.7	71.7	923.0	225.6	292.3	1295.7
Neemuch		Included in Mandsaur					127.6	111.8	876.2
Morena	86.3	34.1	395.1	218.3	263.0	1205.0	146.0	174.0	1191.8
Sheopur		Included in Morena					104.0	127.2	1223.1
Narsimhapur	11.6	2.7	232.8	46.9	39.9	851	128.4	158.4	1233.6
Panna	36.3	10.0	275.5	30.4	10.6	349.0	28.1	10.7	380.8
Raisen	30.9	8.5	275.1	82.1	62.4	760.0	142.1	156.8	1103.4
Rajgarh	31.8	21.3	669.8	125.9	85.7	681.0	230.9	297.4	1288.0
Ratlam	15.0	11.3	753.3	42.5	38.6	908.0	185.4	313.8	1692.6
Rewa	43.0	6.5	151.2	28.6	6.1	213.0	53.3	21.3	399.6
Sagar	37.7	16.4	435.0	86.7	56.8	655.0	193.4	102.5	530.0
Satna	37.7	6.2	164.5	33.5	7.9	236.0	67.2	27.9	415.2
Sehore	25.8	15.4	596.9	127.7	96.7	757.0	244.4	254.1	1039.7
Seoni	56.2	9.3	165.5	76.0	43.6	574.0	125.3	54.6	435.8
Shahdol	75.7	14.4	190.2	60.3	15.2	252.0	52.1	14.7	282.1
Umaria		Included in Shahdol					17.0	4.5	264.7
Shajapur	37.8	28.8	761.9	164.8	132.0	801.0	308.8	361.4	1170.3
Shivpuri	45.9	18.5	403.1	90.7	79.5	877.0	175.1	140.1	800.1
Sidhi	52.5	8.4	160.0	49.2	11.4	232.0	51.6	12.0	232.6
Tikamgarh	15.2	2.6	171.1	33.3	30.9	928.0	114.7	119.7	1043.6
Ujjain	32.6	26.9	825.2	169.1	158.1	935.0	417.5	574.3	1375.6
Vidisha	25.4	10.4	409.4	58.2	49.2	845.0	113.0	96.2	851.3
West Nimar (Khargone)	60.7	34.8	573.3	56.0	61.4	1096.0	54.8	34.4	628.0
Barwani		Included in West Nimar					49.7	32.6	656.0
Non Reported	6.2	1.6		6.5	1.3		6.5	1.2	-
Madhya Pradesh	**1494.0**	**557.3**	**373.0**	**2969.9**	**2244.5**	**755.7**	**5765.8**	**5440.9**	**943.7**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 9: AREA, PRODUCTION, YIELD AND PER CAPITA AVAILABILITY OF FOOD GRAINS IN DISTRICTS OF MADHYA PRADESH OVER 30 YEARS

District	Oilseeds		Per Capita Production (1998/99) in Kgs.			
	Rank in Production	Rank in yield				
	1998-99	1998-99	Cereals	Pulses	Foodgrains	Oilseeds
Balaghat	42	40	259.7	12.6	272.3	6.8
Betul	24	33	185.0	24.8	209.7	66.8
Bhind	16	15	175.1	48.5	223.6	93.6
Bhopal	26	22	78.8	25.0	103.9	34.8
Chhatarpur	30	37	235.4	77.1	312.6	30.6
Chhindwara	19	26	198.6	45.0	243.6	66.8
Damoh	29	29	171.4	67.3	238.7	50.2
Datia	37	25	259.6	145.0	404.6	25.4
Dewas	3	5	247.3	84.9	332.1	258.9
Dhar	7	12	271.7	32.0	303.8	168.2
East Nimar (Khandwa)	25	27	144.0	27.5	171.4	54.2
Guna	22	24	201.0	125.1	326.1	61.7
Gwalior	27	21	194.9	22.6	217.4	36.7
Hoshangabad	10	18	331.7	80.6	412.3	174.5
Harda	15	17	370.0	89.5	459.4	288.9
Indore	8	8	148.1	16.0	164.1	107.8
Jabalpur	33	30	92.6	36.9	129.4	13.6
Katni	43	35	195.1	24.0	219.1	6.0
Jhabua	31	23	214.4	53.8	268.2	28.2
Mandla	39	32	156.7	17.9	174.6	16.6
Dindori	35	38	270.0	28.3	298.4	46.5
Mandsaur	6	3	245.7	75.9	321.7	257.7
Neemuch	20	16	205.6	89.8	295.4	160.2
Morena	11	9	239.0	13.9	252.9	114.5
Sheopur	17	7	443.2	293.8	468.6	239.4
Narsimhapur	12	6	178.6	201.9	380.6	172.1
Panna	41	41	163.9	2.7	237.4	13.1
Raisen	13	11	237.1	56.4	418.4	147.0
Rajgarh	5	4	227.8	161.6	316.1	248.6
Ratlam	4	1	296.6	90.9	359.9	270.1
Rewa	36	39	158.1	39.1	204.4	11.3
Sagar	21	31	153.6	44.9	222.6	52.8
Satna	34	36	183.6	75.3	220.1	15.7
Sehore	9	14	301.1	63.3	427.1	247.6
Seoni	28	34	200.9	114.3	236.3	48.3
Shahdol	38	42	139.9	26.3	151.8	9.7
Umaria	44	43	141.1	191.4	158.5	9.1
Shajapur	2	10	278.3	14.7	404.8	292.8
Shivpuri	14	20	202.7	9.8	294.4	102.0
Sidhi	40	44	150.6	72.8	177.7	6.9
Tikamgarh	18	13	253.0	40.9	308.4	104.5
Ujjain	1	2	305.9	38.7	363.8	350.4
Vidisha	23	19	316.9	7.4	531.9	82.8
West Nimar (Khargone)	32	28	181.5	171.5	197.4	23.6
Barwani	33	26	155.4	14.3	169.7	31.8
Non Reported						
Madhya Pradesh			**206.4**	**58.4**	**264.8**	**94.1**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 10: NET AND GROSS AREA IRRIGATED OVER 30 YEARS AND SOURCEWISE NET IRRIGATED AREA, 1998-99 IN DISTRICTS OF MADHYA PRADESH

EL 10 gives net and gross irrigated area in the years 1978-79, 1988-89 and 1998-99. It also gives the gross or net irrigated categorised based on source of irrigation in the same years. This gives us an idea about the source of water being used for irrigation.

Net Irrigated Area

This represents the irrigated area by all the sources. Area irrigated more than once in the same year is counted only once.

Gross Irrigated Area

This represents the total area irrigated by all the sources, i.e. the sum total of irrigated areas covered by all the individual sources. Areas irrigated more than once during the year are counted separately.

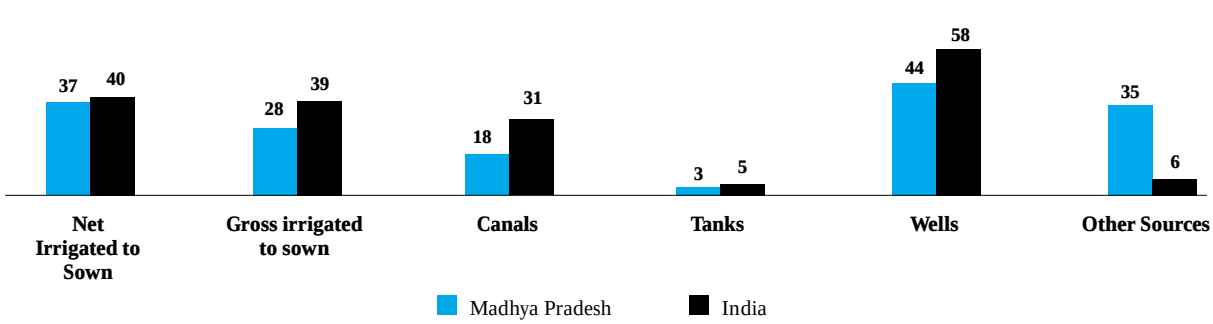
Area Irrigated more than once

This is obtained by deducting 'Net Irrigated Area' from 'Gross Irrigated Area'.

	Year	Madhya Pradesh	India
Area irrigated by canals as % of net irrigated area (hectares)	1998-99	18.1%	31.10%
Area irrigated by tanks as % of net irrigated area (hectares)	1998-99	2.5%	5.16%
Area irrigated by wells as % of net irrigated area (hectares)	1998-99	44.2%	58.01%
Area irrigated by other sources as % of net irrigated area (hectares)	1998-99	35.1%	5.74%
% Net Irrigated area to net sown area (hectares)	1998-99	36.7%	40.0% (provisional)
% Gross irrigated area to gross area sown (hectares)	1998-99	27.8%	39.2% (provisional)

Source: Agriculture Statistics 2000, Directorate of Agriculture, Madhya Pradesh for M.P. and Land Statistics at a Glance, Directorate of Economics and Statistics, Department of Agriculture and Co-operation, Government of India for India.

Percentage of Irrigated Area by Source 1998-99: Madhya Pradesh and India



EL 10: NET AND GROSS AREA IRRIGATED OVER 30 YEARS AND SOURCEWISE NET IRRIGATED AREA, 1998-99 IN DISTRICTS OF MADHYA PRADESH

District	Gross Irrigated Area			Net Irrigated Area		
	1978-79	1988-89	1998-99	1978-79	1988-89	1998-99
Balaghat	124100	133700	137472	113700	119800	121442
Betul	42900	60700	104503	42900	60700	104503
Bhind	112900	112700	137899	101200	98700	125382
Bhopal	12900	24500	71900	12900	24500	71900
Chhatarpur	77500	101300	169515	77200	101000	169515
Chhindwara	48700	65000	127987	39300	65000	120046
Damoh	16000	29200	83443	12600	25800	81336
Datia	30100	40500	85508	30000	40300	81391
Dewas	38500	79100	158563	37900	78800	158405
Dhar	56300	110100	232642	56300	110000	232642
East Nimar (Khandwa)	42500	75000	160229	42500	65500	151434
Guna	28900	63600	154451	28600	63200	154156
Gwalior	104600	116900	156814	88200	99000	123940
Hoshangabad	44000	194800	232517	44000	194800	232517
Harda	Included in Hoshangabad		127238	Included in Hoshangabad		127238
Indore	44900	83500	160059	43300	78700	160059
Jabalpur	32600	59200	96516	26200	53600	92731
Katni	Included in Jabalpur		54243	Included in Jabalpur		45736
Jhabua	18400	28400	82171	17900	27600	80835
Mandsaur	103600	143600	157529	101300	140700	155833
Neemuch	Included in Mandsaur		73250	Included in Mandsaur		73071
Mandla	3600	11800	14756	3600	10100	13591
Dindori	Included in Mandla		1027	Included in Mandla		951
Morena	166200	210200	158359	162800	204800	156170
Sheopur	Included in Morena		103901	Included in Morena		98385
Narsimhapur	21500	54200	157860	21500	54200	157860
Panna	15800	19900	50319	14200	19900	50319
Raisen	15700	60700	147732	15700	60700	147732
Rajgarh	33600	74000	169465	33100	74000	169280
Ratlam	41100	66400	146600	40400	65200	145549
Rewa	22100	45100	87398	22100	45100	87306
Sagar	20000	55500	168442	18000	54900	168439
Satna	14900	42200	106516	14900	42200	106516
Sehore	29800	68900	171530	28400	68900	171530
Seoni	25800	36100	73316	22600	36100	73316
Shahdol	5500	16200	17871	5300	16200	17871
Umaria	Included in Shahdol		16301	Included in Shahdol		16301
Shajapur	41300	97500	216147	39800	96400	215922
Shivpuri	71100	100200	169565	70400	97000	166756
Sidhi	7800	22400	50189	7700	22400	50189
Tikamgarh	90600	119600	216417	88200	111600	177972
Ujjain	45200	112300	261530	44200	111500	261259
Vidisha	9700	50900	143913	9700	50900	143913
West Nimar (Khargone)	77300	131200	175898	77300	131100	175747
Barwani	Included in West Nimar		77993	Included in West Nimar		77993
Madhya Pradesh	**1738000**	**2917100**	**5667494**	**1655900**	**2820900**	**5514979**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 10: NET AND GROSS AREA IRRIGATED OVER 30 YEARS AND SOURCEWISE NET IRRIGATED AREA, 1998-99 IN DISTRICTS OF MADHYA PRADESH

District	% of Net Irrigated Area to Net Sown Area			% of Gross Irrigated Area to Gross Area Sown		
	1978-79	1988-89	1998-99	1978-79	1988-89	1998-99
Balaghat	41.3	43.3	44.5	33.1	36.8	40.0
Betul	10.6	14.8	25.7	9.9	12.6	19.6
Bhind	30.0	29.3	37.2	31.8	31.1	37.6
Bhopal	8.6	15.6	45.3	8.3	13.6	31.8
Chhatarpur	22.8	29.0	44.2	20.0	25.0	35.0
Chhindwara	8.1	13.2	24.2	9.2	11.5	20.8
Damoh	4.5	9.2	26.9	5.2	9.5	21.4
Datia	23.4	30.6	42.7	23.2	29.2	40.9
Dewas	10.9	21.9	42.4	9.9	18.0	26.9
Dhar	11.5	22.0	46.0	10.0	18.3	31.8
East Nimar (Khandwa)	9.7	14.6	34.5	9.1	15.2	29.5
Guna	5.1	10.3	24.3	4.9	9.7	20.7
Gwalior	35.1	37.7	57.2	38.4	40.7	60.6
Hoshangabad	10.0	42.8	79.2	9.8	33.9	48.6
Harda	Included in Hoshangabad		74.9	Included in Hoshangabad		44.7
Indore	16.9	31.4	62.3	14.7	22.8	35.7
Jabalpur	5.7	12.3	33.3	5.8	11.7	26.2
Katni	Included in Jabalpur		22.7	Included in Jabalpur		20.4
Jhabua	5.3	7.8	22.3	4.8	7.2	17.3
Mandsaur	19.9	26.0	44.4	15.1	18.8	27.6
Neemuch	Included in Mandsaur		38.7	Included in Mandsaur		24.0
Mandla	0.9	2.5	6.9	0.7	2.4	5.6
Dindori	Included in Mandla		0.4	Included in Mandla		0.3
Morena	42.8	49.4	58.7	39.7	44.6	49.4
Sheopur	Included in Morena		64.8	Included in Morena		50.6
Narsimhapur	7.9	18.8	53.0	7.5	16.7	38.2
Panna	6.6	9.1	20.7	6.5	8.2	17.7
Raisen	3.9	14.5	34.7	3.9	13.0	26.8
Rajgarh	8.4	18.2	40.8	7.7	15.1	28.1
Ratlam	13.5	20.8	44.8	11.4	16.1	28.3
Rewa	6.0	12.6	23.5	4.7	10.4	17.5
Sagar	3.6	10.7	31.7	3.8	9.9	24.4
Satna	4.3	12.0	29.4	3.5	10.2	21.8
Sehore	8.2	18.8	45.5	8.1	15.4	29.7
Seoni	6.0	9.8	19.7	6.5	8.9	15.8
Shahdol	1.1	3.6	5.0	1.0	3.2	4.2
Umaria	Included in Shahdol		14.7	Included in Shahdol		11.5
Shajapur	9.8	22.4	48.8	9.0	17.8	30.0
Shivpuri	20.0	25.3	40.3	17.9	22.5	31.9
Sidhi	2.3	6.4	13.3	1.7	5.0	9.9
Tikamgarh	40.3	49.7	67.5	31.8	37.8	54.3
Ujjain	9.7	24.1	54.4	8.8	18.6	31.9
Vidisha	1.9	9.8	27.1	1.9	9.1	22.6
West Nimar (Khargone)	12.5	20.8	42.8	11.3	19.0	36.3
Barwani	Included in West Nimar		33.4	Included in West Nimar		28.0
Madhya Pradesh	**11.7**	**19.4**	**36.7**	**10.8**	**17.0**	**27.8**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 10: NET AND GROSS AREA IRRIGATED OVER 30 YEARS AND SOURCEWISE NET IRRIGATED AREA, 1998-99 IN DISTRICTS OF MADHYA PRADESH

District	% of Net Irrigated Area to Gross Area Sown			Sourcewise Net Irrigated Area			
	1978-79	1988-89	1998-99	Canals 1998-99	Tanks 1998-99	Wells 1998-99	Sources 1998-99
Balaghat	30.3	33.0	35.3	72941	28311	15015	5175
Betul	9.9	12.6	19.6	16882	291	64019	23311
Bhind	28.5	27.3	34.2	62225	30	50486	12641
Bhopal	8.3	13.6	31.8	6320	584	26756	38240
Chhatarpur	19.9	24.9	35.0	21831	6728	123733	17223
Chhindwara	7.4	11.5	19.5	8225	310	92609	18902
Damoh	4.1	8.4	20.9	8680	458	19984	52214
Datia	23.1	29.1	38.9	25130	-	53024	3237
Dewas	9.8	17.9	26.8	4226	2682	64439	87058
Dhar	10.0	18.3	31.8	9956	7487	80076	135123
East Nimar (Khandwa)	9.1	13.3	27.9	5556	977	108439	36462
Guna	4.8	9.6	20.7	18856	1886	50645	82769
Gwalior	32.4	34.4	47.9	63734	151	37493	22562
Hoshangabad	9.8	33.9	48.6	138207	1016	45787	47507
Harda	Included in Hoshangabad		44.7	70905	168	38411	17754
Indore	14.2	21.5	35.7	3968	5569	14490	136032
Jabalpur	4.7	10.5	25.2	8161	40	30514	54016
Katni	Included in Jabalpur		17.2	8973	749	18964	17050
Jhabua	4.7	7.0	17.0	13324	7398	23875	36238
Mandsaur	14.8	18.4	27.3	1511	1740	135980	16602
Neemuch	Included in Mandsaur		23.9	2320	918	54973	14860
Mandla	0.7	2.1	5.2	10066	162	2279	1084
Dindori	Included in Mandla		0.3	632	-	127	192
Morena	38.9	43.4	48.8	67072	1155	79884	8059
Sheopur	Included in Morena		47.9	47971	994	10334	39086
Narsimhapur	7.5	16.7	38.2	1190	312	100618	55740
Panna	5.8	8.2	17.7	6684	3818	11012	28805
Raisen	3.9	13.0	26.8	50625	1696	20060	75351
Rajgarh	7.6	15.1	28.1	6406	848	129277	32749
Ratlam	11.2	15.8	28.1	3740	6539	72776	62494
Rewa	4.7	10.4	17.4	17526	3360	27371	39049
Sagar	3.4	9.7	24.4	7242	1800	81973	77424
Satna	3.5	10.2	21.8	7375	645	29174	69322
Sehore	7.7	15.4	29.7	36632	4341	65260	65297
Seoni	5.7	8.9	15.8	35871	6756	21632	9057
Shahdol	1.0	3.2	4.2	5400	1212	3347	7912
Umaria	Included in Shahdol		11.5	2877	302	3346	9776
Shajapur	8.7	17.6	30.0	9793	10860	122171	73098
Shivpuri	17.7	21.8	31.3	12326	6204	108610	39616
Sidhi	1.7	5.0	9.9	12566	577	22382	14664
Tikamgarh	31.0	36.9	44.6	26033	9293	127961	14685
Ujjain	8.6	18.5	31.9	2328	8903	86921	163107
Vidisha	1.9	9.1	22.6	33218	1164	24558	84973
West Nimar (Khargone)	11.3	19.0	36.3	17124	272	100426	57925
Barwani	Included in West Nimar		28.0	6973	133	38913	31974
Madhya Pradesh	**10.3**	**16.5**	**27.1**	**999601**	**138839**	**2440124**	**1936415**

Source: Commissioner of Land Records, Gwalior, Madhya Pradesh

EL 11: LIVESTOCK POPULATION IN DISTRICTS OF MADHYA PRADESH, 1998-99

Table EL 11 gives the livestock population in terms of animals per capita, milch animals per capita and the draught animal per operational holding.

ANIMALS PER CAPITA

Animals per capita is obtained by dividing the total number of animals by the total population. Animals included here are cattle, buffalo, sheep, goat, horses and ponies, mules, donkeys, camel and pigs

MILCH ANIMALS PER CAPITA

Milch animals per capita is obtained by dividing the milch animals which is the sum of cows and the female buffaloes by the total population.

DRAUGHT ANIMALS PER OPERATION HOLDING

Draught animals are animals which used for pulling load. Draught animals per operational holding are obtained by dividing the sum of bull, bullocks and male buffaloes by the number of operational holdings.

EL 11: LIVESTOCK POPULATION IN DISTRICTS OF MADHYA PRADESH, 1998-99

District	Milch Animals	Milch Animals per Capita	Draught Animals	Draught Animals per Operational Holding	Total Animals	Animals per Capita-1998-99
Balaghat	197125	0.14	288957	1.25	876459	0.61
Betul	215593	0.16	266054	1.51	824185	0.61
Bhind	221056	0.16	73257	0.47	692846	0.50
Bhopal	69819	0.04	37424	0.76	232585	0.13
Chhatarpur	270626	0.19	247140	1.18	1203379	0.86
Chhindwara	256002	0.14	288046	1.23	1120883	0.63
Damoh	172875	0.17	155223	1.10	672050	0.64
Datia	111455	0.18	57854	1.04	384518	0.64
Dewas	180329	0.14	141660	1.23	633125	0.51
Dhar	266673	0.16	240439	1.41	1128007	0.68
East Nimar (Khandwa)	312589	0.19	226977	1.49	976674	0.59
Guna	241913	0.15	202943	0.89	893260	0.56
Gwalior	185995	0.12	58959	0.52	622625	0.40
Hoshangabad	166248	0.16	175544	1.28	503474	0.48
Harda	76126	0.17	97583	Included in Hoshangabad	257916	0.57
Indore	191828	0.08	67566	0.73	524359	0.22
Jabalpur	121001	0.06	98055	0.85	463358	0.22
Katni	143942	0.14	195119	Included in Jablapur	660862	0.65
Jhabua	213813	0.16	326466	1.93	1129291	0.84
Mandla	98805	0.11	154683	1.32	461430	0.53
Dindori	94324	0.17	161327	Included in Mandla	423424	0.75
Mandsaur	182370	0.16	89117	0.65	581994	0.51
Neemuch	145024	0.21	60516	Included in Mandsaur	444666	0.64
Morena	249316	0.16	82121	0.70	760557	0.50
Sheopur	141239	0.27	89559	Included in Morena	507383	0.95
Narsimhapur	130138	0.14	93891	0.75	453296	0.49
Panna	170891	0.21	168615	1.19	641001	0.78
Raisen	157310	0.15	124674	1.01	518066	0.49
Rajgarh	264041	0.22	149053	0.78	783987	0.66
Ratlam	137679	0.12	113605	0.87	573604	0.49
Rewa	273582	0.15	338335	1.61	1131207	0.60
Sagar	259234	0.13	191139	0.85	887720	0.46
Satna	274332	0.15	280697	1.27	1087208	0.61
Sehore	183362	0.18	129632	1.09	558207	0.54
Seoni	174851	0.15	214043	1.29	737488	0.65
Shahdol	289312	0.19	452808	1.61	1031000	0.68
Umaria	94952	0.19	103000	Included in Shahdol	329993	0.67
Shajapur	249121	0.20	120069	0.79	736371	0.60
Shivpuri	301802	0.22	212584	1.17	1118503	0.81
Sidhi	309972	0.18	365754	1.73	1372498	0.79
Tikamgarh	197851	0.17	176711	1.05	828922	0.72
Ujjain	235004	0.14	106629	0.74	662900	0.40
Vidisha	199602	0.17	118326	0.97	552125	0.48
West Nimar (Khargone)	235824	0.16	365609	1.60	899732	0.62
Barwani	137997	0.13	150687	Included in West Nimar	615536	0.60
Madhya Pradesh	8802943	0.15	7604763	1.15	31883138	0.56

Source: Commissioner of Land Records, Gwalior,

EL 12: CREDIT DEPOSIT RATIO, CREDIT FLOW TO AGRICULTURE AND RURAL CREDIT IN DISTRICTS OF MADHYA PRADESH

Table EL 12 gives rural credit scene in districts of Madhya Pradesh. Apart from presenting the number of bank branches in Madhya Pradesh including the Commercial Banks, Regional Rural Banks, District Central Co-operative Banks, District Land Development Banks and the number of rural bank branches, the details of priority sector lending including loans for agriculture, non-farm sector, small scale industries and other priority sectors are given in the table. Based on the deposits and advances in 1998-99 and 1999-2000, the credit deposit ratios for the respective years and the growth in credit deposit ratio between the two years are calculated.

Population per Branch

It shows the reach of bank branches and is calculated by dividing the total population by the total number of bank branches.

Credit Deposit Ratio

It is the proportion of assets created by bank from the deposits received. The higher the ratio, the higher the loan assets created from deposit.

Agricultural Credit per Hectare of Gross Cropped Area

It is calculated as loans given out for agricultural purposes divided by the Gross Cropped Area in hectares.

Agricultural Credit per Hectare of Gross Irrigated Area

It is calculated as loans given out for agricultural purposes divided by the Gross Irrigated Area in hectare.

	Year	Madhya Pradesh	India
CD Ratio	1998-99	58.97	55.48
	1999-2000	57.81	57.05

Source: Banking Statistics, Quarterly Handout, March 1999 and March 2000, RBI, Mumbai

EL 12: CREDIT DEPOSIT RATIO, CREDIT FLOW TO AGRICULTURE AND RURAL CREDIT IN DISTRICTS OF MADHYA PRADESH

District	Districtwise Branch Network of Banks (1999-2000)						
	Commercial Banks	Regional Rural Banks	District Central Cooperative Banks	District Land Development Bank (DLDB)	Total	Population per Branch (in '000s	Number of Rural Branches
Balaghat	55	26	17	5	103	12	85
Barwani	34	16	15	7	72	11.56	43
Betul	67		17	9	93	12.7	73
Bhind	37	15	19	10	81	15.05	51
Bhopal	168	5	23	5	201	6.72	34
Chhatarpur	30	40	15	10	95	12.19	47
Chhindwara	69	35	26	9	139	19.96	104
Damoh	36	24	17	7	84	10.69	49
Datia	25	13	8	6	52	9.91	34
Dewas	45	35	21	11	112	9.23	77
Dhar	56	55	30	14	155	8.83	112
Dindori	17	14	5	2	38	15.35	35
East Nimar (Khandwa)	75	30	31	16	152	9.42	97
Guna	53	30	15	13	111	11.8	91
Gwalior	95	19	10	7	131	10.79	48
Harda	12	14	5	3	34	11.2	16
Hoshangabad	36	37	13	8	94	9.43	48
Indore	222	13	30	11	276	6.65	62
Jabalpur	136	11	15	5	167	10.79	48
Jhabua	26	34	17	5	82	13.79	71
Katni	52	10	9	2	73	11.61	47
Mandla	33	17	12	3	65	10.89	55
Mandsaur	41	17	19	9	86	11.13	70
Morena	50	11	9	8	78	16.4	37
Narsimhapur	41	20	15	7	83	9.46	59
Neemuch	34	14	12	7	67	8.93	54
Panna	20	18	9	7	54	12.74	46
Raisen	26	41	15	9	91	9.63	53
Rajgarh	35	38	16	18	107	9.28	65
Ratlam	65	13	23	10	111	8.76	73
Rewa	58	47	16	6	127	12.24	103
Sagar	71	31	24	12	138	11.94	73
Satna	47	59	15	9	130	11.45	87
Sehore	52	8	19	15	94	8.95	41
Seoni	34	26	16	6	82	12.21	71
Shahdol	48	31	13	4	96	13.96	64
Shajapur	46	24	25	9	104	9.94	82
Sheopur	12	8	8	4	32	13.48	24
Shivpuri	31	27	14	11	83	13.65	59
Sidhi	47	36	12	6	101	13.58	96
Tikamgarh	17	42	17	7	83	11.33	83
Ujjain	93	25	28	14	160	8.64	80
Umaria	16	11	5	1	33	12.22	24
Vidisha	48	18	23	16	105	9.24	71
West Nimar (Khargone)	46	29	51	12	138	8.66	100
Madhya Pradesh	**2357**	**1087**	**774**	**382**	**4594**	**10.87**	**2842**

Source: Madhya Pradesh State Focus paper, 2001-02, National Bank for Agriculture and Rural Development, Bhopal

EL 12: CREDIT DEPOSIT RATIO, CREDIT FLOW TO AGRICULTURE AND RURAL CREDIT IN DISTRICTS OF MADHYA PRADESH

District	Priority Sector Lending in 1999-2000 (Amount in Rs. Lakhs)						1998-999		
	Total Crop Loans	Total Agriculture Term Loans	Total Loans for Agriculture	Loans for Non Farm Sector and SSI	Other Priority Total	Grand Total	Deposits (Amount in Rs. lakhs)	Advances (Amount in Rs. lakhs)	Credit Deposit Ratio
Balaghat	1802.28	484.14	2286.42	358.12	841.85	3486.39	23940	12960	54.14
Barwani	3114.40	479.00	3593.40	697.31	675.02	4965.73	20883.87	11918.94	57.07
Betul	1373.25	1134.12	2507.37	249.44	820.66	3577.47	38354	16125	42.04
Bhind	2555.13	1461.92	4017.05	191.37	302.89	4511.31	32816.56	14187	43.23
Bhopal	5122.18	1163.89	6286.07	2077.97	3800.05	12164.09	270900	150579	55.58
Chhatarpur	1960.71	1123.62	3084.33	110.03	596.39	3790.75	32925.9	12893.3	39.16
Chhindwara	2904.34	954.73	3859.07	374.97	2030.65	6264.69	54214	26906	49.63
Damoh	1594.44	732.00	2326.44	112.83	599.07	3038.34	19930	10929	54.84
Datia	1982.95	1033.54	3016.49	77.86	360.24	3454.59	12500.8	6324.8	50.60
Dewas	2909.67	2252.75	5162.42	713.47	761.43	6637.32	35959.62	31834.4	88.53
Dhar	5615.00	1959.00	7574.00	353.00	1460.0	9387.00	42687	25875	60.62
Dindori	53.11	96.44	149.55	57.83	378.81	586.19	5262.32	2738.21	52.03
East Nimar (Khandwa)	6447.91	1260.55	7708.46	1196.79	1607.14	10512.39	53958.58	36379.31	67.42
Guna	1541.79	2376.80	3918.59	184.92	1214.86	5318.37	36831	24359	66.14
Gwalior	3012.70	1925.91	4938.61	1565.82	2544.48	9048.91	138319.2	45656.4	33.01
Harda	2939.46	586.33	3525.79	107.82	404.53	4038.14	10939.65	10629.64	97.17
Hoshangabad	3615.17	1215.13	4830.3	191.38	980.83	6002.51	35584.78	21996.49	61.81
Indore	5677.43	3484.94	9162.37	6820.12	11094.56	27077.05	343918	321682	93.53
Jabalpur	991.91	1526.74	2518.65	658.56	3304.23	6481.44	195379.48	98235.46	50.28
Jhabua	1876.84	595.27	2472.11	110.47	679.69	3262.27	21197	10095	47.62
Katni	364.73	520.89	885.62	496.55	635.52	2017.69	31798.35	9251.1	29.09
Mandla	253.37	188.07	441.44	47.17	179.61	668.22	15578.32	7399.53	47.50
Mandsaur	2748.12	2107.16	4855.28	249.20	799.90	5904.38	31272	18551	59.32
Morena	1722.60	2191.80	3914.40	614.64	2260.81	6789.85	28919.63	18909.66	65.39
Narsimhapur	913.58	764.15	1677.73	153.06	260.43	2091.22	23017.55	18153.83	78.87
Neemuch	1244.86	998.56	2243.42	68.78	313.84	2626.04	22168	6918	31.21
Panna	984.03	855.93	1839.96	34.10	324.78	2198.84	15129	6521	43.10
Raisen	2124.76	1258.48	3383.24	123.61	2134.35	5641.20	19337.45	13969.3	72.24
Rajgarh	3186.23	2143.95	5330.18	219.68	879.26	6429.12	21970	20023	91.14
Ratlam	3229.17	1716.47	4945.64	423.68	1067.31	6436.63	54417.36	22624.83	41.58
Rewa	1268.99	1232.31	2501.30	509.89	992.16	4003.35	64590	21969	34.01
Sagar	2339.15	1913.32	4252.47	527.31	1645.33	6425.11	60044.66	28347.57	47.21
Satna	2229.43	1011.57	3241.00	405.00	524.00	4170.00	61754	22071	35.74
Sehore	2919.60	1619.90	4539.50	46.19	456.76	5042.45	24346.63	18810.76	77.26
Seoni	1918.56	483.00	2401.56	54.47	503.21	2959.24	20730	10361	49.98
Shahdol	239.71	495.82	735.53	206.00	631.50	1573.03	43262.05	8590.2	19.86
Shajapur	3522.24	2314.72	5836.96	147.12	817.28	6801.36	23633	20569	87.04
Sheopur	893.64	986.94	1880.58	22.64	103.33	2006.55	12657.64	7547.47	59.63
Shivpuri	1600.91	1315.53	2916.44	138.33	292.67	3347.44	31270.42	13539.25	43.30
Sidhi	501.07	591.39	1092.46	171.81	523.74	1788.01	41281.99	10625.34	25.74
Tikamgarh	2162.16	595.27	2757.43	171.92	872.16	3801.51	22357.06	8746.37	39.12
Ujjain	4673.49	2587.35	7260.84	2097.80	3979.13	13337.77	81272	55699	68.53
Umaria	137.58	212.40	349.98	48.07	174.99	573.04	9889.88	2068.23	20.91
Vidisha	4380.74	2944.09	7324.83	69.89	984.41	8379.13	28622.39	23143.83	80.86
West Nimar (Khargone)	7016.97	763.76	7780.73	1948.09	1255.24	10984.06	34101.14	24072.48	70.59
Madhya Pradesh	**109666.36**	**57659.65**	**167326.01**	**25205.08**	**57069.1**	**249600.19**	**2264319.28**	**1335310.7**	**58.97**

Source: Madhya Pradesh State Focus paper, 2001-02, National Bank for Agriculture and Rural Development, Bhopal

EL 12: CREDIT DEPOSIT RATIO, CREDIT FLOW TO AGRICULTURE AND RURAL CREDIT IN DISTRICTS OF MADHYA PRADESH

District	1998-999					Average Agricultural Credit (1199-2000) given per hectare of	
	Deposits	Advances	Credit Deposit Ratio	% Growth in Deposits	% Growth in Advances	Gross Cropped Area	Irrigated Area
	(Amount in Rs. lakhs)						
Balaghat	28095	13915	49.53	17.36	7.37	665.2	1663.2
Barwani	25304.4	15619.52	61.73	21.17	31.05	1289.4	4607.3
Betul	44330	17205	38.81	15.58	6.70	471.4	2399.3
Bhind	37140.82	16488.84	44.40	13.18	16.22	1095.4	2913.0
Bhopal	356726	185956	52.13	31.68	23.49	2779.7	8742.8
Chhatarpur	38611	15219.9	39.42	17.27	18.05	636.9	1819.5
Chhindwara	65453	29366	44.87	20.73	9.14	627.0	3015.2
Damoh	23416	13420	57.31	17.49	22.79	597.9	2788.1
Datia	17334.55	8844.8	51.02	38.67	39.84	1442.2	3527.7
Dewas	42865.2	35784.05	83.48	19.20	12.41	874.3	3255.8
Dhar	49437	31801	64.33	15.81	22.90	1035.3	3255.6
Dindori	5666.69	2805.58	49.51	7.68	2.46	48.5	14561.8
East Nimar (Khandwa)	59154.98	41526.8	70.20	9.63	14.15	1418.0	4810.9
Guna	42612	25919	60.83	15.70	6.40	525.4	2537.1
Gwalior	165905.5	76383.9	46.04	19.94	67.30	1909.8	3149.3
Harda	12958.68	11368.82	87.73	18.46	6.95	1237.4	2771.0
Hoshangabad	41831.82	25316.94	60.52	17.56	15.10	1009.8	2077.4
Indore	376194	382810	101.76	9.38	19.00	2042.6	5724.4
Jabalpur	223255	102888	46.09	14.27	4.74	683.3	2609.6
Jhabua	23252	10556	45.40	9.69	4.57	521.1	3008.5
Katni	38385.02	11257.84	29.33	20.71	21.69	333.2	1632.7
Mandla	19300.59	8523.71	44.16	23.89	15.19	168.3	2991.6
Mandsaur	38042.09	21078.31	55.41	21.65	13.62	851.7	3082.1
Morena	37074.87	23577.9	63.60	28.20	24.69	1222.3	2471.9
Narsimhapur	25515.19	19011.12	74.51	10.85	4.72	406.3	1062.8
Neemuch	27234.4	9392	34.49	22.85	35.76	734.4	3062.7
Panna	17423	7643	43.87	15.16	17.21	647.9	3656.6
Raisen	22044.76	18276.45	82.91	14.00	30.83	613.6	2290.1
Rajgarh	26377	23094	87.55	20.06	15.34	883.4	3145.3
Ratlam	62961.87	25595.02	40.65	15.70	13.13	953.7	3373.6
Rewa	73872.94	22400.31	30.32	14.37	1.96	499.9	2862.0
Sagar	68666.68	31936.28	46.51	14.36	12.66	617.2	2524.6
Satna	72722	29295	40.28	17.76	32.73	663.9	3042.7
Sehore	29120.81	21437.75	73.62	19.61	13.97	785.3	2646.5
Seoni	24209	11626	48.02	16.78	12.21	518.0	3275.6
Shahdol	53542.98	10325.72	19.28	23.76	20.20	172.3	4115.8
Shajapur	28455.62	23145.75	81.34	20.41	12.53	810.2	2700.5
Sheopur	8715.87	6765.37	77.62	-31.14	-10.36	916.3	1810.0
Shivpuri	34556.33	15893.66	45.99	10.51	17.39	547.9	1720.0
Sidhi	57405.47	11850.29	20.64	39.06	11.53	214.8	2176.7
Tikamgarh	26753.93	11021.91	41.20	19.67	26.02	691.8	1274.1
Ujjain	94624	53962	57.03	16.43	-3.12	886.0	2776.3
Umaria	12106.59	2390.49	19.75	22.41	15.58	246.5	2147.0
Vidisha	34065.13	27597.89	80.94	19.12	19.25	1148.5	5089.8
West Nimar (Khargone)	40394.49	27561.42	68.23	18.45	14.49	1607.6	4423.4
Madhya Pradesh	**2664744.27**	**1540566.34**	**57.81**	**17.68**	**15.37**	**821.5**	**2952.4**

Source: Madhya Pradesh State Focus paper, 2001-02, National Bank for Agriculture and Rural Development, Bhopal

GENDER

Table GE 1 gives information on the Total Population, Population in the age group of 0-6 years and Population in 7+ age groups. Based on it the Overall Gender Ratio, Juvenile Sex Ratio and Sex Ratio in the 7+ age groups are presented. The districts are ranked on based on all the above. The changes in Overall Gender Ratio, Juvenile Sex Ratio, and Sex Ratio in 7+ age groups between 1991 and 2001 are also calculated and the districts ranked based on the above.

Overall Gender Ratio

Overall Gender Ratio is the number of females in a population for every 1000 males. It is calculated by multiplying the female population in an area by 1000, and dividing this number by the male population in that area.

Juvenile Sex Ratio

Juvenile Sex Ratio is the number of females in the age group of 0-6 years in a population for every 1000 males in the same age group. It is calculated by multiplying the female population in the age group of 0-6 years in an area by 1000, and dividing this number by the male population in the age group of 0-6 years in that area.

Sex Ratio in 7+ age group

Sex Ratio in the 7+ age group is the number of females in the age group of 7+ years in a population for every 1000 males in the same age group. It is calculated by multiplying the female population in the age group of 7+ years in an area by 1000, and dividing this number by the male population in the age group of 7+ years in that area.

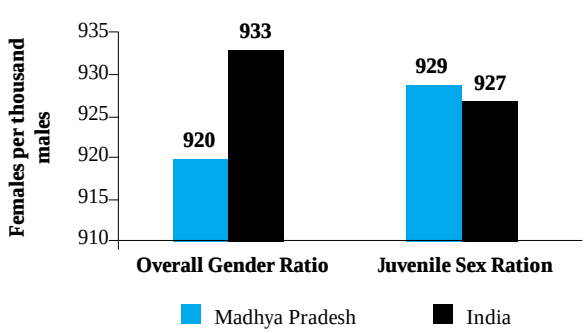
Change

Change in Gender Ratio between two points of time.

	Year	Madhya Pradesh	India
Overall Gender Ratio	2001	920	933
Juvenile Sex Ratio	2001	929	927
Sex Ratio in age group 7+ years	2001	905	

Source: Census of India 2001

Overall Gender Ratio and Juvenile Sex Ratio 2001: Madhya Pradesh and India



GE 1: POPULATION AND SEX RATIO IN DIFFERENT AGE GROUPS IN DISTRICTS OF MADHYA PRADESH

District	Total Population			Population in Age-Group 0-6		
	Persons	Males	Females	Persons	Males	Females
Balaghat	1445760	714938	730822	218596	110719	107877
Barwani	1081039	547837	533202	240538	122132	118406
Betul	1394421	709525	684896	230225	116965	113260
Bhind	1426951	780122	646829	247881	135553	112328
Bhopal	1836784	968964	867820	282284	146186	136098
Chhatarpur	1474633	788845	685788	284631	148218	136413
Chhindwara	1848882	946582	902300	292830	149277	143553
Damoh	1081909	568704	513205	191638	98335	93303
Datia	627818	337842	289976	106833	56982	49851
Dewas	1306617	676414	630203	228631	118195	110436
Dhar	1740577	890853	849724	334269	172222	162047
Dindori	579312	290572	288740	95513	48017	47496
East Nimar (Khandwa)	1708170	882371	825799	302400	155547	146853
Guna	1665503	883433	782070	320800	166278	154522
Gwalior	1629881	882258	747623	248337	134299	114038
Harda	474174	247129	227045	84952	44104	40848
Hoshangabad	1085011	571796	513215	172326	89423	82903
Indore	2585321	1352849	1232472	366526	191608	174918
Jabalpur	2167469	1134870	1032599	301227	156498	144729
Jhabua	1396677	701742	694935	314541	159649	154892
Katni	1063689	548077	515612	186455	95565	90890
Mandla	893908	446487	447421	143700	72368	71332
Mandsaur	1183369	604942	578427	193750	99573	94177
Morena	1587264	871243	716021	290670	158897	131773
Narsimhapur	957399	501407	455992	150158	78333	71825
Neemuch	725457	371972	353485	114370	59323	55047
Panna	854235	447923	406312	167421	86673	80748
Raisen	1120159	595730	524429	208148	107112	101036
Rajgarh	1253246	648850	604396	229273	117960	111313
Ratlam	1214536	620119	594417	213248	108793	104455
Rewa	1972333	1017402	954931	367825	190983	176842
Sagar	2021783	1073032	948751	364967	189146	175821
Satna	1868648	970114	898534	338527	175428	163099
Sehore	1078769	565387	513382	204334	105625	98709
Seoni	1165893	588135	577758	193281	97636	95645
Shahdol	1572748	803416	769332	264989	134505	130484
Shajapur	1290230	669419	620811	231765	119691	112074
Sheopur	559715	295630	264085	110469	57202	53267
Shivpuri	1440666	775473	665193	276520	144863	131657
Sidhi	1830553	947276	883277	373889	191719	182170
Tikamgarh	1203160	637842	565318	223003	116238	106765
Ujjain	1709885	881509	828376	276442	142995	133447
Umaria	515851	264998	250853	95643	48788	46855
Vidisha	1214759	647632	567127	229353	118071	111282
West Nimar (Khargone)	1529954	785212	744742	287618	146158	141460
Madhya Pradesh	**60385118**	**31456873**	**28928245**	**10618323**	**5504422**	**5113901**

Source: Census of India 2001, Madhya Pradesh, Series-24

GE 1: POPULATION AND SEX RATIO IN DIFFERENT AGE GROUPS IN DISTRICTS OF MADHYA PRADESH

District	Population in Age-Group 7+			Gender Ratio			
	Persons	Males	Females	1991	Rank in 1991	2001	Rank in 2001
Balaghat	1227164	604219	622945	1002	1	1022	1
Barwani	840501	425705	414796	964	7	973	6
Betul	1164196	592560	571636	966	6	965	7
Bhind	1179070	644569	534501	889	33	829	33
Bhopal	1554500	822778	731722	816	44	896	44
Chhatarpur	1190002	640627	549375	856	40	869	40
Chhindwara	1556052	797305	758747	953	8	953	12
Damoh	890271	470369	419902	905	28	902	31
Datia	520985	280860	240125	847	42	858	41
Dewas	1077986	558219	519767	924	20	932	21
Dhar	1406308	718631	687677	951	9	954	11
Dindori	483799	242555	241244	993	2	994	3
East Nimar (Khandwa)	1405770	726824	678946	938	17	936	19
Guna	1344703	717155	627548	875	37	885	36
Gwalior	1381544	747959	633585	831	43	847	43
Harda	389222	203025	186197	914	25	919	25
Hoshangabad	912685	482373	430312	892	32	898	32
Indore	2218795	1161241	1057554	906	27	911	26
Jabalpur	1866242	978372	887870	903	29	910	27
Jhabua	1082136	542093	540043	977	4	990	4
Katni	877234	452512	424722	939	16	941	16
Mandla	750208	374119	376089	983	3	1002	2
Mandsaur	989619	505369	484250	947	11	956	10
Morena	1296594	712346	584248	808	45	822	45
Narsimhapur	807241	423074	384167	913	26	909	28
Neemuch	611087	312649	298438	943	12	950	13
Panna	686814	361250	325564	897	31	907	30
Raisen	912011	488618	423393	879	36	880	38
Rajgarh	1023973	530890	493083	923	21	931	22
Ratlam	1001288	511326	489962	948	10	959	8
Rewa	1604508	826419	778089	932	18	939	18
Sagar	1656816	883886	772930	881	34	884	37
Satna	1530121	794686	735435	918	23	926	24
Sehore	874435	459762	414673	898	30	908	29
Seoni	972612	490499	482113	974	5	982	5
Shahdol	1307759	668911	638848	940	15	958	9
Shajapur	1058465	549728	508737	918	24	927	23
Sheopur	449246	238428	210818	880	35	893	34
Shivpuri	1164146	630610	533536	849	41	858	42
Sidhi	1456664	755557	701107	922	22	932	20
Tikamgarh	980157	521604	458553	871	39	886	35
Ujjain	1433443	738514	694929	929	19	940	17
Umaria	420208	216210	203998	942	13	947	15
Vidisha	985406	529561	455845	874	38	876	39
West Nimar (Khargone)	1242336	639054	603282	941	14	948	14
Madhya Pradesh	**49766795**	**25952451**	**23814344**	**912**		**920**	

Source: Census of India 2001, Madhya Pradesh, Series-24

GE 1: POPULATION AND SEX RATIO IN DIFFERENT AGE GROUPS IN DISTRICTS OF MADHYA PRADESH

District				Juvenile Sex Ratio				
	Change	Ranking by Change	1991	Rank in 1991	2001	Rank in 2001	Change	Ranking by Change
Balaghat	20	1	975	8	974	35	-1	43
Barwani	9	20	982	3	969	4	-13	30
Betul	-1	42	980	4	968	5	-12	29
Bhind	6	30	850	27	829	26	-22	21
Bhopal	13	7	938	45	931	45	-7	35
Chhatarpur	13	10	919	38	920	36	1	11
Chhindwara	1	40	965	12	962	7	-4	17
Damoh	-3	44	930	33	949	12	19	2
Datia	11	11	899	42	875	41	-24	36
Dewas	8	25	932	30	934	22	2	10
Dhar	3	36	970	10	941	18	-29	41
Dindori	1	41	980	5	989	1	9	6
East Nimar (Khandwa)	-2	43	951	17	944	14	-6	20
Guna	10	17	932	31	929	29	-2	15
Gwalior	16	4	888	43	849	43	-38	42
Harda	4	34	938	26	926	32	-12	28
Hoshangabad	5	31	929	34	927	31	-2	14
Indore	5	32	940	23	913	39	-27	38
Jabalpur	7	29	951	16	925	34	-26	37
Jhabua	13	9	991	1	970	21	-21	44
Katni	1	38	959	14	951	10	-8	24
Mandla	19	2	978	6	986	42	8	45
Mandsaur	10	18	949	18	946	13	-4	16
Morena	14	6	857	44	829	44	-28	40
Narsimhapur	-3	45	924	37	917	38	-7	22
Neemuch	7	27	948	20	928	30	-20	34
Panna	11	14	948	19	932	24	-17	33
Raisen	1	39	928	36	943	16	16	3
Rajgarh	8	24	931	32	944	15	12	5
Ratlam	10	16	961	13	960	9	-1	13
Rewa	7	28	935	29	926	33	-9	25
Sagar	3	35	935	28	930	28	-5	19
Satna	8	23	939	24	930	27	-9	26
Sehore	10	15	915	40	935	20	19	1
Seoni	9	22	972	9	980	2	8	8
Shahdol	18	3	986	2	970	3	-16	32
Shajapur	9	19	928	35	936	19	9	7
Sheopur	13	8	941	22	931	25	-10	27
Shivpuri	9	21	914	41	909	40	-5	18
Sidhi	11	13	977	7	950	11	-27	39
Tikamgarh	15	5	918	39	919	37	1	12
Ujjain	11	12	946	21	933	23	-13	31
Umaria	5	33	968	11	960	8	-7	23
Vidisha	2	37	939	25	943	17	3	9
West Nimar (Khargone)	8	26	954	15	968	6	14	4
Madhya Pradesh	**7**		**941**		**929**		**-12**	

Source: Census of India 2001, Madhya Pradesh, Series-24

GE 1: POPULATION AND SEX RATIO IN DIFFERENT AGE GROUPS IN DISTRICTS OF MADHYA PRADESH

District	Age 7+ Sex Ratio					
	1991	Rank in 1991	2001	Rank in 2001	Change	Ranking by Change
Balaghat	1008	1	1031	1	33	3
Barwani	959	7	974	6	16	15
Betul	962	6	965	7	2	39
Bhind	879	33	829	33	10	26
Bhopal	807	44	889	44	22	7
Chhatarpur	840	40	858	40	17	13
Chhindwara	949	8	952	13	2	40
Damoh	899	27	893	31	-7	45
Datia	835	41	855	41	20	10
Dewas	921	20	931	20	10	27
Dhar	946	9	957	10	11	24
Dindori	997	2	995	4	-2	43
East Nimar (Khandwa)	934	16	934	19	0	41
Guna	861	37	875	36	14	16
Gwalior	819	43	847	42	28	4
Harda	908	25	917	25	9	29
Hoshangabad	884	31	892	32	8	33
Indore	899	28	911	26	12	23
Jabalpur	893	29	907	28	14	18
Jhabua	973	5	996	3	35	2
Katni	935	15	939	18	4	37
Mandla	984	3	1005	2	52	1
Mandsaur	946	10	958	9	12	22
Morena	795	45	820	45	25	6
Narsimhapur	910	24	908	27	-2	44
Neemuch	942	12	955	12	12	21
Panna	883	32	901	30	18	12
Raisen	867	35	867	38	-1	42
Rajgarh	921	21	929	21	7	34
Ratlam	946	11	958	8	13	20
Rewa	931	17	942	16	11	25
Sagar	867	34	874	37	7	35
Satna	913	23	925	23	13	19
Sehore	893	30	902	29	9	31
Seoni	974	4	983	5	9	30
Shahdol	929	18	955	11	26	5
Shajapur	916	22	925	24	10	28
Sheopur	863	36	884	34	21	9
Shivpuri	832	42	846	43	14	17
Sidhi	906	26	928	22	22	8
Tikamgarh	859	38	879	35	20	11
Ujjain	925	19	941	17	16	14
Umaria	935	14	944	15	9	32
Vidisha	858	39	861	39	3	38
West Nimar (Khargone)	937	13	944	14	7	36
Madhya Pradesh	**905**		**918**		**12**	

Source: Census of India 2001, Madhya Pradesh, Series-24

GE 2: GENDER RATIO OVER 100 YEARS IN DISTRICTS OF MADHYA PRADESH

Table GE 2 gives information on the Gender Ratio in the districts of Madhya Pradesh in the last 10 decades and the changes in Gender Ratio between 1981-1991 and 1991-2001. The percentage change in Gender Ratio between 1991 and 2001 is also calculated. The table also ranks the districts based on their Gender Ratio in 2001.

GENDER RATIO

Gender ratio is the number of females in a population for every 1000 males. It is calculated by multiplying the female population in an area by 1000, and dividing this number by the male population in that area.

CHANGE

Change in gender ratio between two points of time

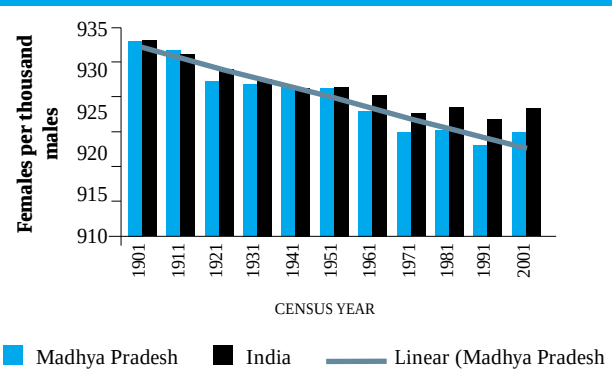
% CHANGE

The change in gender ratio between two points of time expressed as a percent of the gender ratio of the earlier time period

	Year	Madhya Pradesh	India
Gender Ratio	2001	920	933
Change between 1991 and 2001 (in points)		8	6

Source: Census of India 2001

Gender Ratio Over 100 Years: Madhya Pradesh and India



GE 2: SEX RATIO OVER 100 YEARS IN DISTRICTS OF MADHYA PRADESH

District	Gender Ratio in 1901	Gender Ratio in 1911	Gender Ratio in 1921	Gender Ratio in 1931	Gender Ratio in 1941	Gender Ratio in 1951	Gender Ratio in 1961	Gender Ratio in 1971
Balaghat	1065	1037	1032	1028	1021	989	1009	1000
Barwani		967	961	957	970	974	968	967
Betul	1040	1011	1025	1020	1003	997	994	982
Bhind		851	835	835	839	843	849	834
Bhopal		937	903	897	881	895	816	840
Chhatarpur	943	943	923	920	911	893	891	864
Chhindwara	1046	1020	1026	1011	997	995	980	968
Damoh	988	982	954	974	981	980	965	941
Datia		935	922	912	914	912	903	882
Dewas		986	941	946	947	960	937	929
Dhar		1004	987	979	971	963	962	962
Dindori	1028	1017	1011	1015	1010	1011	1011	999
East Nimar (Khandwa)	948	948	930	929	946	948	939	934
Guna		918	908	901	905	919	899	884
Gwalior		861	822	834	853	885	853	834
Harda	996	981	965	957	972	957	955	939
Hoshangabad	1007	985	967	962	968	956	925	902
Indore		891	848	838	861	900	882	880
Jabalpur	1019	977	953	953	905	914	897	887
Jhabua		1001	971	958	956	949	958	969
Katni	1041	1031	1016	1010	996	989	975	965
Mandla	1027	1017	1012	1013	1008	1048	1002	994
Mandsaur	946	949	947	941	945	940	925	925
Morena		843	819	823	830	832	831	822
Narsimhapur	1040	1013	990	992	972	969	952	926
Neemuch	927	944	950	944	941	967	924	920
Panna	990	974	966	968	965	941	938	923
Raisen		993	952	952	933	913	907	900
Rajgarh		928	906	906	912	924	917	907
Ratlam		961	948	946	957	966	941	941
Rewa	1014	1012	1012	992	996	979	987	973
Sagar	973	960	941	942	979	934	920	892
Satna	1041	1034	1016	1006	986	976	965	950
Sehore		962	928	929	919	922	914	905
Seoni	1069	1053	1045	1046	1030	1015	1006	986
Shahdol	1004	1018	999	996	987	969	963	953
Shajapur		942	932	927	946	966	943	931
Sheopur		854	829	831	837	908	861	886
Shivpuri		912	892	899	903	908	888	864
Sidhi	999	1006	1000	995	987	971	977	961
Tikamgarh	941	957	932	926	921	911	906	877
Ujjain		920	918	913	935	952	921	918
Umaria	994	1012	996	992	987	968	936	962
Vidisha	939	940	908	917	905	915	890	882
West Nimar (Khargone)		962	956	952	966	969	951	939
Madhya Pradesh	**972**	**967**	**949**	**947**	**946**	**945**	**932**	**920**

Source: Census of India 2001, Madhya Pradesh, Series-24

GE 2: SEX RATIO OVER 100 YEARS IN DISTRICTS OF MADHYA PRADESH

District	Gender Ratio in	Gender Ratio in	Change from	Gender Ratio in	Change from 1991 to 2001		
	1981	1991	1981 to 1991	2001	Change	% age Change	Rank
Balaghat	1006	1002	-4	1022	20	2.00%	1
Barwani	969	964	-5	973	9	0.93%	21
Betul	973	966	-7	965	-1	-0.10%	42
Bhind	827	816	-11	829	13	1.59%	6
Bhopal	874	889	15	895	6	0.67%	29
Chhatarpur	864	856	-8	869	13	1.52%	7
Chhindwara	965	953	-12	953	0	0.00%	41
Damoh	925	905	-20	902	-3	-0.33%	44
Datia	854	847	-7	858	11	1.30%	10
Dewas	929	924	-5	931	7	0.76%	26
Dhar	966	951	-15	953	2	0.21%	37
Dindori	999	985	-14	993	8	0.81%	25
East Nimar (Khandwa)	939	938	-1	935	-3	-0.32%	43
Guna	882	875	-7	885	10	1.14%	12
Gwalior	844	831	-13	847	16	1.93%	2
Harda	930	914	-16	918	4	0.44%	34
Hoshangabad	899	892	-7	897	5	0.56%	32
Indore	898	906	8	911	5	0.55%	33
Jabalpur	894	903	9	909	6	0.66%	30
Jhabua	985	977	-8	990	13	1.33%	9
Katni	956	939	-17	940	1	0.11%	40
Mandla	1006	990	-16	1002	12	1.21%	11
Mandsaur	941	947	6	956	9	0.95%	19
Morena	817	808	-9	821	13	1.61%	5
Narsimhapur	930	913	-17	909	-4	-0.44%	45
Neemuch	940	943	3	950	7	0.74%	28
Panna	913	897	-16	907	10	1.11%	13
Raisen	908	879	-29	880	1	0.11%	39
Rajgarh	931	923	-8	931	8	0.87%	23
Ratlam	948	948	0	958	10	1.05%	17
Rewa	969	932	-37	938	6	0.64%	31
Sagar	891	881	-10	884	3	0.34%	36
Satna	936	918	-18	926	8	0.87%	22
Sehore	907	898	-9	908	10	1.11%	14
Seoni	982	974	-8	982	8	0.82%	24
Shahdol	944	940	-4	957	17	1.81%	3
Shajapur	929	918	-11	927	9	0.98%	18
Sheopur	887	880	-7	893	13	1.48%	8
Shivpuri	855	849	-6	857	8	0.94%	20
Sidhi	951	922	-29	932	10	1.08%	15
Tikamgarh	883	871	-12	886	15	1.72%	4
Ujjain	926	929	3	939	10	1.08%	16
Umaria	963	942	-21	946	4	0.42%	35
Vidisha	881	874	-7	875	1	0.11%	38
West Nimar (Khargone)	944	941	-3	948	7	0.74%	27
Madhya Pradesh	**921**	**912**	**-9**	**920**	**8**	**0.88%**	

Source: Census of India 2001, Madhya Pradesh, Series-24

GE 3: MALE FEMALE DIFFERENTIALS IN HUMAN DEVELOPMENT IN DISTRICTS OF MADHYA PRADESH

Table GE 3 gives the indicators of literacy rates, infant mortality rates and life expectancy at birth segregated by sex and the gender ratio in order to present the male-female differential in human development.

Gender Ratio

Gender ratio is the number of females in a population for every 1000 males. It is calculated by multiplying the female population in an area by 1000, and dividing this number by the male population in that area.

Literacy Rate

Literacy rate is calculated as a percentage of the of literate population over population above the age of 7 years.

Infant Mortality Rate

The annual number of deaths of infants less than one year of age per 1000 live births. More specifically, the probability of dying between birth and exactly one year of age times 1000.

Life Expectancy (in years at birth)

Life expectancy is the number of years a newborn would live if the current mortality conditions (i.e. age-specific mortality rate) prevailed throughout its life.

	Year	Madhya Pradesh	India
Gender Ratio	2001	920	933
Literacy Rate	2001		
Male		76.80%	75.96%
Female		50.3%	54.28%
Infant Mortality Rate	1999		
Male		89.6	69.8
Female		89.5	70.8
Life Expectancy at Birth	1992-96		
Male		55.1	60.1
Female		54.7	61.4

Source: Census of India 2001 for Gender Ratio and Literacy Rate, SRS Bulletin, Volume 35 No. 1, RGI for Infant Mortality Rate and Compendium of India's Fertility and Mortality Indicators 1971-1997 for Life Expectancy at Birth.

GE 3: MALE FEMALE DIFFERENTIALS IN HUMAN DEVELOPMENT IN DISTRICTS OF MADHYA PRADESH

District	Gender Ratio 2001	Literacy Rates			
		1991		2001	
		Male	Female	Male	Female
Balaghat	1022	67.63	38.95	81.09	57.02
Betul	965	57.42	33.90	77.31	56.05
Bhind	829	66.20	28.20	84.06	55.73
Bhopal	896	73.14	54.17	82.56	66.67
Chhatarpur	869	46.87	21.32	65.50	39.38
Chhindwara	953	56.65	32.52	76.70	54.82
Damoh	902	60.49	30.46	75.05	47.51
Datia	858	62.50	24.45	82.94	62.48
Dewas	932	61.15	25.57	76.07	44.90
Dhar	954	47.62	20.71	66.18	38.62
East Nimar (Khandwa)	936	58.53	31.53	74.09	48.46
Guna	885	48.86	17.99	74.70	43.06
Gwalior	847	70.87	43.08	80.83	56.76
Hoshangabad	898	67.19	39.29	81.36	58.02
Harda	919	62.54	33.76	78.45	54.14
Indore	911	77.99	53.35	84.32	63.96
Jabalpur	910	75.64	52.29	91.40	59.47
Katni	941	63.97	30.53	79.88	48.48
Jhabua	990	26.29	11.52	48.75	25.50
Mandla	1002	50.45	23.48	76.71	45.39
Dindori	994	55.05	20.21	70.41	38.48
Mandsaur	956	66.98	27.24	85.77	54.87
Neemuch	950	69.34	30.04	83.04	49.12
Morena	822	63.53	23.79	80.97	46.81
Sheopur	893	40.73	12.27	62.19	28.99
Narsimhapur	909	68.44	41.59	86.79	69.02
Panna	907	46.29	19.41	74.02	47.84
Raisen	880	54.02	25.47	82.18	61.89
Rajgarh	931	46.73	15.62	69.53	37.37
Ratlam	959	58.36	19.13	80.10	54.66
Rewa	939	60.67	26.88	75.97	47.83
Sagar	884	67.02	37.78	79.96	54.50
Satna	926	60.03	27.80	77.82	51.40
Sehore	908	56.90	21.99	78.14	47.95
Seoni	982	57.50	31.14	77.50	54.06
Shahdol	958	48.93	20.93	69.55	45.40
Umaria	947	46.85	17.43	74.11	45.57
Shajapur	927	56.99	19.77	83.68	57.58
Shivpuri	858	47.50	15.64	74.78	41.54
Sidhi	932	43.23	13.61	68.03	36.43
Tikamgarh	886	47.52	19.96	68.83	40.98
Ujjain	940	64.25	32.64	83.70	57.87
Vidisha	876	58.04	27.81	74.71	47.45
West Nimar (Khargone)	948	55.43	26.09	75.23	50.89
Barwani	973	36.77	19.01	51.09	31.35
Madhya Pradesh	**920**	**58.54**	**29.35**	**76.80**	**50.28**

Source: Census of India 1991, F-Series, Madhya Pradesh
Census of India 2001, Madhya Pradesh

GE 3: MALE FEMALE DIFFERENTIALS IN HUMAN DEVELOPMENT IN DISTRICTS OF MADHYA PRADESH

District	Infant Mortality Rate (per 1000 live births)		Life Expectancy (in years at birth	
	1991		1991	
	Male	Female	Male	Female
Balaghat	108	111	56.2	55.6
Betul	126	129	52.2	51.7
Bhind	83	122	62	53.3
Bhopal	72	69	64.6	65.3
Chhatarpur	135	165	50.3	44.4
Chhindwara	97	109	58.8	56
Damoh	124	120	52.8	53.6
Datia	106	125	56.8	52.5
Dewas	105	97	61.6	58.8
Dhar	91	88	62.2	60.8
East Nimar (Khandwa)	102	98	57.6	58.6
Guna	117	143	54.2	48.7
Gwalior	68	75	65.5	63.9
Hoshangabad	103	116	57.3	54.5
Harda			Included in Hoshangabad	
Indore	86	83	66	61.9
Jabalpur	106	95	56.8	59.2
Katni			Included in Jablapur	
Jhabua	115	145	54.7	48.4
Mandla	92	85	60.5	61.5
Dindori			Included in Mandla	
Mandsaur	103	106	57.3	56.8
Neemuch			Included in Mandsaur	
Morena	89	112	60.5	55.54
Sheopur			Included in Morena	
Narsimhapur	101	119	57.9	53.9
Panna	123	143	53	48.8
Raisen	127	120	52	53.7
Rajgarh	84	130	61.8	51.4
Ratlam	105	95	56.8	59.2
Rewa	119	137	53.8	49.9
Sagar	118	115	54.1	54.7
Satna	136	150	50.1	47.4
Sehore	129	114	51.8	54.9
Seoni	98	99	58.5	58.3
Shahdol	114	106	55	56.8
Umaria			Included in Shahdol	
Shajapur	108	102	56.2	57.7
Shivpuri	149	180	47.5	41.4
Sidhi	104	107	57.1	56.5
Tikamgarh	112	154	55.4	46.5
Ujjain	92	107	60	56.6
Vidisha	119	131	53.9	51.3
West Nimar (Khargone)	100	108	58.1	56.2
Barwani			Included in West Nimar	
Madhya Pradesh	101	106	57.9	56.6

Source: Census of India 1991, F-Series, Madhya Pradesh
Census of India 2001, Madhya Pradesh

GE 4: PARTICIPATION OF WOMEN IN ECONOMIC ACTIVITIES, 1991

Table GE 4 shows the Participation of Women in Economic Activities as per the 1991 and 2001 census. The Table shows percentage of Women Main Workers in all Main Workers and the share of Women Workers in each of the major categories of Cultivators, Agricultural Labourers, Workers in Household Industry and Other Workers.

Women Main Workers Share of all Main Workers

Census records a person as a Main worker if he/ she has worked for a major part of the year preceding the enumeration. Women main workers as share of all Main Workers gives the percentage of women main workers over all main workers.

Women Cultivators as Share of all Cultivators

For purpose of census a person is working as cultivator if he or she is engaged as employer, single worker or family worker in cultivation of land owned or held from government or held from private person or institutions for payment in money, kind or share. Cultivation includes agriculture operations for all produce except fruit growing, vegetable growing, or keeping of orchards or groves or working of plantations. Women cultivators as share of all cultivators gives the percentage of women cultivators over all cultivators.

Women Agriculture Labourers as Share of all Agriculture Labourers

Person working on another persons land for wages in money, kind or share are enumerated as agricultural labourers. An agricultural labourer has no risk in the cultivation and he has no right of lease or contract on land on which he works. Women agricultural labourers as share of all agriculture labourers gives the percentage of women agricultural labourers over all agricultural labourers.

Women Workers in Household Industry as Share of all Workers in Household Industry

(Manufacturing, Processing, Servicing and Repairs in Household Industry): Persons working in an industry located at home or within the village in rural areas and only within the precincts of the house where the household lives in urban areas. Women workers in household industry as share of all workers in household industry gives the percentage of women workers in household industry over all workers in housebold industry.

Women Other Workers as Share of all Other Workers

Other categories include Mining and Quarrying, Non household Industry, Construction, Trade and Commerce, Transport, Storage and Communications, Other Services. Women workers in other categories as share of all workers in other categories gives the percentage of women worker in other categories over all workers in other categories.

GE 4: PARTICIPATION OF WOMEN IN ECONOMIC ACTIVITIES-1991

District	Women main Workers: share of all Main Workers 1991	Women main Workers: share of all Main Workers 2001	Women Cultivators: share of all Cultivators 1991	Women Cultivators: share of all Cultivators 2001	Women Agricultural Labourers: share of all Agricultural Labourers 1991
Balaghat	37.97%	34.94%	38.66%	46.17%	47.70%
Barwani	31.93%	34.86%	30.26%	45.92%	47.97%
Betul	36.51%	28.82%	36.26%	37.34%	57.21%
Bhind	3.77%	15.67%	2.01%	20.97%	12.66%
Bhopal	16.28%	16.66%	16.47%	32.32%	36.15%
Chhatarpur	20.34%	20.92%	16.71%	32.71%	39.93%
Chhindwara	29.47%	26.25%	27.19%	36.03%	51.18%
Damoh	24.16%	24.54%	9.89%	23.26%	34.17%
Datia	14.62%	26.77%	12.16%	40.83%	35.37%
Dewas	28.55%	28.21%	26.61%	40.99%	46.12%
Dhar	35.29%	31.60%	35.71%	43.79%	50.17%
Dindori	40.46%	43.69%	38.39%	46.85%	55.54%
East Nimar (Khandwa)	31.94%	31.83%	30.56%	37.75%	49.59%
Guna	14.08%	19.32%	8.30%	28.93%	34.64%
Gwalior	9.59%	12.99%	5.91%	22.59%	27.27%
Harda	25.71%	24.37%	18.49%	38.32%	42.40%
Hoshangabad	19.11%	16.12%	11.54%	19.63%	37.29%
Indore	19.84%	19.72%	28.29%	39.15%	45.86%
Jabalpur	22.52%	21.65%	22.77%	27.46%	43.22%
Jhabua	31.02%	36.47%	31.52%	48.03%	51.34%
Katni	26.24%	23.18%	21.74%	30.90%	45.36%
Mandla	41.22%	38.15%	40.66%	43.34%	56.12%
Mandsaur	32.85%	32.76%	34.12%	42.36%	50.55%
Morena	7.36%	16.42%	7.88%	22.79%	14.34%
Narsimhapur	24.83%	23.25%	15.52%	23.85%	40.80%
Neemuch	35.89%	34.30%	41.78%	46.17%	52.39%
Panna	21.89%	24.29%	15.31%	33.66%	39.88%
Raisen	20.52%	17.11%	10.46%	18.72%	34.71%
Rajgarh	24.48%	30.88%	21.76%	44.12%	46.00%
Ratlam	30.64%	27.60%	33.36%	39.54%	51.51%
Rewa	30.31%	29.96%	27.15%	44.32%	44.77%
Sagar	23.61%	23.44%	12.68%	21.28%	29.56%
Satna	28.88%	26.72%	24.98%	34.23%	44.99%
Sehore	27.57%	24.12%	24.08%	37.21%	43.99%
Seoni	34.64%	30.95%	31.85%	41.02%	48.06%
Shahdol	26.94%	25.39%	23.62%	35.22%	51.24%
Shajapur	28.00%	25.61%	24.73%	42.34%	44.81%
Sheopur	18.94%	16.29%	17.81%	32.63%	36.40%
Shivpuri	20.06%	28.25%	18.89%	39.05%	43.02%
Sidhi	27.14%	26.92%	26.17%	40.21%	41.72%
Tikamgarh	23.21%	24.55%	22.65%	40.51%	41.67%
Ujjain	26.07%	28.28%	26.49%	41.94%	46.88%
Umaria	29.32%	25.44%	25.25%	33.46%	49.72%
Vidisha	17.41%	15.39%	9.63%	18.34%	31.12%
West Nimar (Khargone)	34.99%	36.02%	33.98%	43.94%	49.56%
Madhya Pradesh	**26.33%**	**26.19%**	**24.74%**	**37.29%**	**44.42%**

Source: Census of India 1991

GE 4: PARTICIPATION OF WOMEN IN ECONOMIC ACTIVITIES-1991

District	Women Agricultural Labourers: share of all Agricultural Labourers 2001	Women in Household Industries : share of all Workers in Household Industies 1991	Women inHousehold Industries: share of all Workers in Household Industries 2001	Women Other Workers: Share of all Other Workers 1991	Women Other Workers: Share of all Other Workers 2001
Balaghat	57.85%	42.99%	53.81%	18.27%	19.79%
Barwani	54.91%	26.86%	37.68%	11.70%	18.92%
Betul	58.53%	25.61%	33.79%	10.00%	15.49%
Bhind	40.76%	6.80%	49.38%	3.82%	31.82%
Bhopal	47.61%	35.85%	39.77%	13.54%	15.68%
Chhatarpur	54.15%	29.05%	49.28%	7.93%	15.28%
Chhindwara	56.24%	21.75%	30.13%	10.03%	15.60%
Damoh	42.83%	49.81%	64.29%	18.55%	18.90%
Datia	54.78%	22.41%	49.04%	7.34%	22.79%
Dewas	54.42%	22.85%	33.88%	8.27%	12.60%
Dhar	56.02%	26.41%	33.71%	11.27%	14.68%
Dindori	57.27%	22.75%	42.19%	15.96%	24.26%
East Nimar (Khandwa)	52.15%	24.03%	33.92%	10.35%	13.37%
Guna	52.21%	26.56%	47.57%	10.20%	14.37%
Gwalior	47.84%	33.36%	46.17%	7.94%	11.47%
Harda	51.39%	19.62%	32.49%	7.16%	11.74%
Hoshangabad	44.37%	25.05%	34.91%	10.42%	14.54%
Indore	51.54%	32.10%	30.60%	11.31%	14.64%
Jabalpur	47.39%	36.04%	52.32%	11.79%	15.23%
Jhabua	63.10%	23.73%	41.75%	13.92%	29.76%
Katni	53.10%	33.93%	54.29%	13.25%	16.88%
Mandla	57.94%	27.87%	39.64%	12.62%	21.71%
Mandsaur	56.53%	27.39%	31.63%	9.26%	13.56%
Morena	40.56%	13.28%	51.54%	3.19%	34.07%
Narsimhapur	46.46%	23.97%	37.57%	10.90%	17.19%
Neemuch	56.78%	28.97%	36.97%	7.92%	12.20%
Panna	52.73%	27.43%	44.32%	13.24%	23.14%
Raisen	40.75%	31.86%	53.05%	12.58%	15.54%
Rajgarh	59.39%	23.71%	37.33%	7.69%	14.25%
Ratlam	60.21%	26.60%	30.39%	9.97%	14.03%
Rewa	51.45%	32.62%	43.60%	8.50%	14.98%
Sagar	39.16%	52.76%	62.26%	9.16%	14.16%
Satna	50.57%	45.40%	56.66%	10.63%	15.89%
Sehore	53.06%	22.21%	31.68%	9.43%	13.57%
Seoni	57.13%	21.54%	34.42%	12.08%	17.98%
Shahdol	57.31%	21.53%	37.38%	6.83%	15.26%
Shajapur	55.79%	25.38%	36.51%	7.59%	12.49%
Sheopur	54.03%	25.46%	43.72%	5.84%	19.34%
Shivpuri	54.95%	16.89%	38.50%	8.04%	14.40%
Sidhi	53.22%	24.11%	34.05%	6.87%	12.55%
Tikamgarh	60.37%	26.48%	51.34%	8.71%	20.36%
Ujjain	55.27%	30.01%	40.47%	10.59%	14.60%
Umaria	54.80%	28.44%	39.76%	9.28%	16.96%
Vidisha	40.83%	26.05%	45.57%	11.22%	14.28%
West Nimar (Khargone)	52.62%	24.59%	32.65%	10.35%	13.92%
Madhya Pradesh	**52.77%**	**37.04%**	**50.36%**	**10.44%**	**16.29%**

Source: Census of India 1991

GENERAL

Table GL 1 presents the demographic information on total population, sex ratio, decadal growth rate and population density for Indian States and Union Territories. The share of each states population in India is also presented in the table

Share of National Population

This is taken as the percentage population of state or Union Territory over that of India.

Sex Ratio

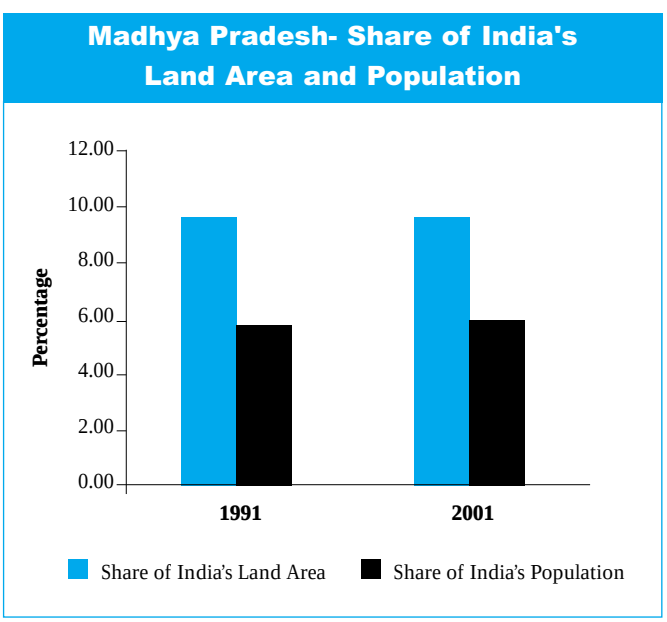
This gives the number of females in population for thousand males. It is calculated by dividing the female population by male population and multiplying the quotient by 1000.

Decadal Growth Rate

This is the growth of population in a decade and is calculated as a percentage of change in population to total population.

Population Density

Population density is obtained by dividing the population of the district by total geographical area in sq. kms.



GL 1: POPULATION, SEX RATIO, POPULATION DENSITY AND DECADAL GROWTH RATE OF POPULATION IN INDIAN STATES AND UNION TERRITORIES, 2001

State/ Union Territory *	Geographical Area		Total Population		
	Area (in sq. kms.)	Share of India	Persons	Share of National Population	Male
Jammu & Kashmir[2,3]	101387	3.2%	10069917	0.98%	5300574
Himachal Pradesh[4]	55673	1.8%	6077248	0.59%	3085256
Punjab	50362	1.6%	24289296	2.37%	12963362
Chandigarh*	114	0.0%	900914	0.09%	508224
Uttaranchal	53483	1.7%	8479562	0.83%	4316401
Haryana	44212	1.4%	21082989	2.05%	11327658
Delhi*	1483	0.0%	13782976	1.34%	7570890
Rajasthan	342239	10.8%	56473122	5.50%	29381657
Uttar Pradesh	240928	7.6%	166052859	16.17%	87466301
Bihar	94163	3.0%	82878796	8.07%	43153964
Sikkim	7096	0.2%	540493	0.05%	288217
Arunachal Pradesh	83743	2.6%	1091117	0.11%	573951
Nagaland	16579	0.5%	1988636	0.19%	1041686
Manipur	22327	0.7%	2388634	0.23%	1207338
Mizoram	21081	0.7%	891058	0.09%	459783
Tripura	10486	0.3%	3191168	0.31%	1636138
Meghalaya	22429	0.7%	2306069	0.22%	1167840
Assam	78438	2.5%	26638407	2.59%	13787799
West Bengal	88752	2.8%	80221171	7.81%	41487694
Jharkhand	79714	2.5%	26909428	2.62%	13861277
Orissa	155707	4.9%	36706920	3.57%	18612340
Chhatisgarh	135191	4.3%	20795956	2.02%	10452426
Madhya Pradesh	308245	9.7%	60385118	5.88%	31456873
Gujarat[5]	196024	6.2%	50596992	4.93%	26344053
Daman & Diu*	112	0.0%	158059	0.02%	92478
Dadra & Nagar Haveli*	491	0.0%	220451	0.02%	121731
Maharashtra	307713	9.7%	96752247	9.42%	50334270
Andhra Pradesh	275045	8.7%	75727541	7.37%	38286811
Karnataka	191791	6.1%	52733958	5.13%	26856343
Goa	3702	0.1%	1343998	0.13%	685617
Lakshadweep*	32	0.0%	60595	0.01%	31118
Kerala	38863	1.2%	31838619	3.10%	15468664
Tamil Nadu	130058	4.1%	62110839	6.05%	31268654
Pondicherry*	492	0.0%	973829	0.09%	486705
Andaman & Nicobar Islands*	8249	0.3%	356265	0.03%	192985
INDIA[1,2]	**3166404**		**1027015247**		**531277078**

1. The population of India includes the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State and entire Kinnaur district of Himachal Pradesh where population enumeration of Census of India 2001 could not be conducted due to natural calamities.
2. For working out the density of India and Jammu & Kashmir the entire area and population of those areas of Jammu & Kashmir which are under illegal occupation of Pakistan and China have not been taken into account.
3. While working out the decadal growth of population of Jammu and Kashmir the population figures for 1991 have been worked out by interpolation as 1991 Census could not be held in this State owing to disturbed conditions.

GL 1: POPULATION, SEX RATIO, POPULATION DENSITY AND DECADAL GROWTH RATE OF POPULATION IN INDIAN STATES AND UNION TERRITORIES, 2001

State/ Union Territory *	Total Population	Sex Ratio (Females per 1,000 Males)	Density (per sq.km)	Decadal Growth Rate
	Female			
Jammu & Kashmir[2,3]	4769343	900	99	29.04
Himachal Pradesh[4]	2991992	970	109	17.53
Punjab	11325934	874	482	19.76
Chandigarh*	392690	773	7902	40.33
Uttaranchal	4163161	964	159	19.20
Haryana	9755331	861	477	28.06
Delhi*	6212086	821	9294	46.31
Rajasthan	27091465	922	165	28.33
Uttar Pradesh	78586558	898	689	25.80
Bihar	39724832	921	880	28.43
Sikkim	252276	875	76	32.98
Arunachal Pradesh	517166	901	13	26.21
Nagaland	946950	909	120	64.41
Manipur	1181296	978	107	30.02
Mizoram	431275	938	42	29.18
Tripura	1555030	950	304	15.74
Meghalaya	1138229	975	103	29.94
Assam	12850608	932	340	18.85
West Bengal	38733477	934	904	17.84
Jharkhand	13048151	941	338	23.19
Orissa	18094580	972	236	15.94
Chhatisgarh	10343530	990	154	18.06
Madhya Pradesh	28928245	920	196	24.34
Gujarat[5]	24252939	921	258	22.48
Daman & Diu*	65581	709	1411	55.59
Dadra & Nagar Haveli*	98720	811	449	59.20
Maharashtra	46417977	922	314	22.57
Andhra Pradesh	37440730	978	275	13.86
Karnataka	25877615	964	275	17.25
Goa	658381	960	363	14.89
Lakshadweep*	29477	947	1894	17.19
Kerala	16369955	1058	819	9.42
Tamil Nadu	30842185	986	478	11.19
Pondicherry*	487124	1001	2029	20.56
Andaman & Nicobar Islands*	163280	846	43	26.94
INDIA[1,2]	**495738169**	**933**	**324**	**21.34**

4. Figures shown against Himachal Pradesh have been arrived at after including the estimated figures of entire Kinnaur district of Himachal Pradesh where the population enumeration of Census of India 2001 could not be conducted due to natural calamity.
5. Figures shown against Gujarat have been arrived at after including the estimated figures of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State where the population enumeration of Census of India 2001 could not be conducted due to natural calamity
6. Figures shown against geographical area of Jammu and Kashmir excludes 78114 sq. kms. under the illegal occuaption of Pakistan and 5180 sq. kms. Illegally handed over by Pakistan to China and 37555 sq. Kms. under the illegal occupation of China in Ladakh district.

GL 2: POPULATION, LITERATE POPULATION AND LITERACY RATE IN INDIAN STATES AND UNION TERRITORIES, 2001

Table GL 2 presents the total population and population in the age group of 0-6 years in the year 2001 in the Indian States and Union Territories. It also gives information on the literate population and literacy rates for the year 2001. All the data have been segregated into male/ female categories

Literate

A person who can both read and write with understanding in any language is treated as literate. A person who can merely read but cannot write is not literate. It is not necessary that a person who is literate should have received any formal education or should have passed any minimum educational standard. All children of the age of 6 years or less are treated as illiterate even if they might be going to school and may have picked up reading and writing a few words.

Literacy Rate

Literacy rate is calculated as a percentage of literate population over population above the age of 7 years.

GL 2: POPULATION, LITERATE POPULATION AND LITERACY RATE IN INDIAN STATES AND UNION TERRITORIES, 2001

State/ Union territory*	Total Population			Child Population in the Age Group 0-6		
	Persons	Males	Females	Persons	Males	Females
Jammu & Kashmir	10069917	5300574	4769343	1431182	738839	692343
Himachal Pradesh[2]	6077248	3085256	2991992	769424	405618	363806
Punjab	24289296	12963362	11325934	3055492	1704142	1351350
Chandigarh*	900914	508224	392690	109293	59238	50055
Uttaranchal	8479562	4316401	4163161	1319393	692272	627121
Haryana	21082989	11327658	9755331	3259080	1790758	1468322
Delhi*	13782976	7570890	6212086	1923995	1031584	892411
Rajasthan	56473122	29381657	27091465	10451103	5474965	4976138
Uttar Pradesh	166052859	87466301	78586558	30472042	15903900	14568142
Bihar	82878796	43153964	39724832	16234539	8375532	7859007
Sikkim	540493	288217	252276	77170	38856	38314
Arunachal Pradesh	1091117	573951	517166	200055	102010	98045
Nagaland	1988636	1041686	946950	280172	141852	138320
Manipur	2388634	1207338	1181296	312691	159448	153243
Mizoram	891058	459783	431275	141537	71817	69720
Tripura	3191168	1636138	1555030	427012	216244	210768
Meghalaya	2306069	1167840	1138229	457442	231571	225871
Assam	26638407	13787799	12850608	4350248	2215104	2135144
West Bengal	80221171	41487694	38733477	11132824	5671152	5461672
Jharkhand	26909428	13861277	13048151	4796188	2440025	2356163
Orissa	36706920	18612340	18094580	5180551	2656046	2524505
Chhatisgarh	20795956	10452426	10343530	3469774	1756441	1713333
Madhya Pradesh	60385118	31456873	28928245	10618323	5504422	5113901
Gujarat[3]	50596992	26344053	24252939	6867958	3656956	3211002
Daman & Diu*	158059	92478	65581	20012	10394	9618
Dadra & Nagar Haveli*	220451	121731	98720	39173	19856	19317
Maharashtra	96752247	50334270	46417977	13187087	6878579	6308508
Andhra Pradesh	75727541	38286811	37440730	9673274	4926200	4747074
Karnataka	52733958	26856343	25877615	6826168	3501499	3324669
Goa	1343998	685617	658381	142152	73547	68605
Lakshadweep*	60595	31118	29477	8860	4488	4372
Kerala	31838619	15468664	16369955	3653578	1861669	1791909
Tamil Nadu	62110839	31268654	30842185	6817669	3515562	3302107
Pondicherry*	973829	486705	487124	113010	57722	55288
Andaman & Nicobar Is.*	356265	192985	163280	44674	22733	21941
INDIA[1]	**1027015247**	**531277078**	**495738169**	**157863145**	**81911041**	**75952104**

1. The population of India includes the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State and entire Kinnaur district of Himachal Pradesh where population ennumeration of Census of India, 2001 could not be conducted because of natural calamities.
2. Figures shown against Himachal Pradesh have been arrived after including estimated figures for entire Kinnaur district of Himachal Pradesh where the population ennumeration of Census of India, 2001could not be conducted due to natural calamity.
3. The total population shown against Gujarat include the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State while the child population in age group 0-6 and illiterates do not include the figures of these areas as these details are not available because the population enumeration of Census of India 2001 could not be conducted in these areas due to natural calamity.

GL 2: POPULATION, LITERATE POPULATION AND LITERACY RATE IN INDIAN STATES AND UNION TERRITORIES, 2001

State/ Union territory*	Literates			Literacy Rate (%)		
	Persons	Males	Females	Persons	Males	Females
Jammu & Kashmir	4704252	2999353	1704899	54.46	65.75	41.82
Himachal Pradesh[2]	4029097	2266103	1762994	77.13	86.02	68.08
Punjab	14853810	8515310	6338500	69.95	75.63	63.55
Chandigarh*	647208	384563	262645	81.76	85.65	76.65
Uttaranchal	5175176	3044487	2130689	72.28	84.01	60.26
Haryana	12225036	7558443	4666593	68.59	79.25	56.31
Delhi*	9703049	5713157	3989892	81.82	87.37	75.00
Rajasthan	28086101	18279511	9806590	61.03	76.46	44.34
Uttar Pradesh	77770275	50256119	27514156	57.36	70.23	42.98
Bihar	31675607	20978955	10696652	47.53	60.32	33.57
Sikkim	322828	191326	131502	69.68	76.73	61.46
Arunachal Pradesh	487796	302371	185425	54.74	64.07	44.24
Nagaland	1146523	645807	500716	67.11	71.77	61.92
Manipur	1429656	815944	613712	68.87	77.87	59.70
Mizoram	663262	351851	311411	88.49	90.69	86.13
Tripura	2036159	1156824	879335	73.66	81.47	65.41
Meghalaya	1170443	619274	551169	63.31	66.14	60.41
Assam	14327540	8324077	6003463	64.28	71.93	56.03
West Bengal	47821757	27784750	20037007	69.22	77.58	60.22
Jharkhand	11970177	7759966	4210211	54.13	67.94	39.38
Orissa	20053785	12118256	7935529	63.61	75.95	50.97
Chhatisgarh	11292896	6770898	4521998	65.18	77.86	52.40
Madhya Pradesh	31906109	19932013	11974096	64.11	76.80	50.28
Gujarat[3]	29050019	17349179	11700840	69.97	80.50	58.60
Daman & Diu*	111939	72559	39380	81.09	88.40	70.37
Dadra & Nagar Haveli*	108830	74691	34139	60.03	73.32	42.99
Maharashtra	64566781	37487129	27079652	77.27	86.27	67.51
Andhra Pradesh	40364765	23636077	16728688	61.11	70.85	51.17
Karnataka	30774988	17817682	12957306	67.04	76.29	57.45
Goa	989362	544006	445356	82.32	88.88	75.51
Lakshadweep*	45281	24806	20475	87.52	93.15	81.56
Kerala	25625698	12817963	12807735	90.92	94.20	87.86
Tamil Nadu	40624398	22847735	17776663	73.47	82.33	64.55
Pondicherry*	701447	381327	320120	81.49	88.89	74.13
Andaman & Nicobar Is.*	252945	146536	106409	81.18	86.07	75.29
INDIA[1]	566714995	339969048	226745947	65.38	75.85	54.16

1. The population of India includes the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State and entire Kinnaur district of Himachal Pradesh where population ennumeration of Census of India, 2001 could not be conducted because of natural calamities.
2. Figures shown against Himachal Pradesh have been arrived after including estimated figures for entire Kinnaur district of Himachal Pradesh where the population ennumeration of Census of India, 2001could not be conducted due to natural calamity.
3. The total population shown against Gujarat include the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamnagar district of Gujarat State while the child population in age group 0-6 and illiterates do not include the figures of these areas as these details are not available because the population enumeration of Census of India 2001 could not be conducted in these areas due to natural calamity.

Table GL 3 provides with estimates of rural and urban poverty in the districts of Madhya Pradesh, drawn from regional estimates of poverty estimated by NSSO 1993-94. These derived estimates (*) are used in the construction of the Human Development Indices

Poor Person

A poor person is one whose consumption expenditure (PCTE) is below the acceptable minimum, called the poverty line.

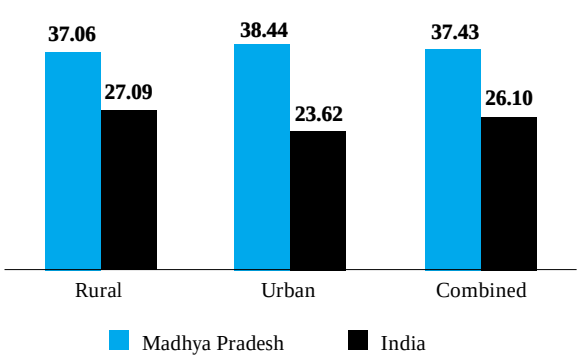
Head Count Ratio

Head Count Ratio (HCR) is the proportion of poor people in the total population.

Population below Poverty Line: 1999-2000

	Madhya Pradesh	India
Rural	37.06%	27.09%
Urban	38.44%	23.62%
Combined	37.43%	26.10%

Poverty Ratios 1999-2000: Madhya Pradesh and India



* Data for state and regional level poverty from the National Sample Surveys undertaken in 1993/94 are available for sub-state regions, according to agro-climatic zones (for five zones for Madhya Pradesh). The rural and urban poverty rates are available for the entire region as a whole, divided into rural and urban. To get estimates of rural and urban poverty in each of the districts within an agro-climatic zone, estimated rural and urban population in 1993/94 was calculated. The value of agriculture and forest output for the districts in each zone was divided by the total agriculture and forest output for the zone as a whole for that period. The quotient was divided by share of the estimated rural population of the district to the estimated rural population for the zone as a whole. The poverty rate (head count ratio) for rural poverty for the entire zone was divided by the resultant quotient and the resultant figure was assumed to represent the rural poverty rate for each district within a zone.

For urban poverty, no single income measure was found significant enough, and we found that zonal urban poverty rates are sensitive to data on households without access to safe drinking water, electricity and toilet. Similar to the calculation for rural poverty, we took the population in each district without access to all three facilities in the Census in 1991, and, the share of this population to the total such people in an entire zone. Similarly, the share of the estimated urban population in each district was divided by the total estimated urban population for each zone. The quotient from the first was divided by the quotient from the second, and the result was multiplied with the NSS urban poverty rate (head count ratio). The total poverty ratio was calculated from the weights of rural and urban poverty in each district.

GL 3: POVERTY RATES, 1993-94

District	NSS Region	Regional Poverty - Head Count Ratio		Estimated Poverty from NSS Estimates Head Count Ratio (HCR)		
		Urban	Rural	Urban	Rural	Total
Balaghat	South Central	33.2%	49.2%	43.3%	63.5%	45.3%
Betul	South Western	55.1%	55.9%	66.9%	60.2%	65.6%
Bhind	North	10.1%	43.3%	12.8%	51.5%	21.5%
Bhopal	Central	34.0%	51.5%	25.2%	39.0%	36.5%
Chhatarpur	Vindhya	22.8%	48.9%	17.3%	52.5%	24.9%
Chhindwara	South Central	33.2%	49.2%	23.1%	56.9%	31.2%
Damoh	Central	34.0%	51.5%	49.3%	78.8%	55.3%
Datia	North	10.1%	43.3%	9.5%	42.8%	17.5%
Dewas	Malwa Plateau	15.2%	44.0%	17.1%	48.3%	26.5%
Dhar	Malwa Plateau	15.2%	44.0%	18.0%	46.4%	21.8%
East Nimar (Khandwa)	South Western	55.1%	55.9%	48.5%	53.7%	50.0%
Guna	North	10.1%	43.3%	9.2%	48.4%	18.1%
Gwalior	North	10.1%	43.3%	7.7%	35.0%	24.2%
Hoshangabad	South Western	55.1%	55.9%	34.5%	52.8%	39.7%
Harda	South Western	Included in Hoshangabad				
Indore	Malwa Plateau	15.2%	44.0%	11.3%	41.5%	32.8%
Jabalpur	South Central	33.2%	49.2%	39.3%	45.6%	42.2%
Katni	South Central	Included in Jabalpur				
Jhabua	Malwa Plateau	15.2%	44.0%	30.2%	41.6%	31.2%
Mandla	South Central	33.2%	49.2%	53.9%	50.9%	53.7%
Dindori	South Central	Included in Mandla				
Mandsaur	Malwa Plateau	15.2%	44.0%	11.5%	61.9%	23.9%
Neemuch	Malwa Plateau	Included in Mandsaur				
Morena	North	10.1%	43.3%	11.0%	49.3%	20.5%
Sheopur	North	Included in Morena				
Narsimhapur	South Central	33.2%	49.2%	18.9%	43.6%	22.8%
Panna	Vindhya	22.8%	48.9%	18.3%	51.1%	23.8%
Raisen	Central	34.0%	51.5%	28.0%	59.1%	34.1%
Rajgarh	Malwa Plateau	15.2%	44.0%	21.5%	59.6%	28.7%
Ratlam	Malwa Plateau	15.2%	44.0%	12.4%	33.1%	19.1%
Rewa	Vindhya	22.8%	48.9%	25.9%	47.5%	29.4%
Sagar	Central	34.0%	51.5%	44.7%	68.1%	51.7%
Satna	Vindhya	22.8%	48.9%	23.4%	48.5%	28.8%
Sehore	Central	34.0%	51.5%	28.7%	54.3%	34.0%
Seoni	South Central	33.2%	49.2%	35.3%	49.0%	36.8%
Shahdol	Vindhya	22.8%	48.9%	28.6%	49.7%	33.4%
Umaria	Vindhya	Included in Shahdol				
Shajapur	Malwa Plateau	15.2%	44.0%	14.0%	52.0%	21.3%
Shivpuri	North	10.1%	43.3%	10.0%	46.9%	16.1%
Sidhi	Vindhya	22.8%	48.9%	36.1%	38.7%	36.4%
Tikamgarh	Vindhya	22.8%	48.9%	13.6%	52.3%	21.3%
Ujjain	Malwa Plateau	15.2%	44.0%	11.2%	33.1%	20.1%
Vidisha	Central	34.0%	51.5%	29.2%	52.6%	34.3%
West Nimar (Khargone)	South Western	55.1%	55.9%	78.6%	58.9%	75.6%
Barwani	South Western	Included in West Nimar				

GL 4: POPULATION DISTRIBUTION, DECADAL GROWTH RATE, SEX RATIO AND DENSITY BY DISTRICT, 2001

Table GL 4 gives demographic data in the districts of Madhya Pradesh. Taking data from the 1991 and 2001 census, this table gives population in the districts. The data on population is segregated into male-female and rural-urban categories. This table also gives the district wise decadal growth rates in the last two decades as well the gender ratios and density of population.

Share of State Population

This is taken as the percentage population of the district over that of Madhya Pradesh.

Decadal Growth Rate

This is the urban growth of population in a decade an is calculated by dividing the change in population by total population and multiplying the quotient by 100.

Population Density

Population density is obtained by dividing the population of the district by total geographical in sq. kms.

Sex Ratio

This gives the number of female in population for thousand males. It is calculated by dividing the female population by male population and multiplying the quotient by 1000.

Urban Area

An urban area is defined as follow:

a) All places with a Municipality Corporations, Cantonment, Board or Notified Town Area etc.

b) All other places which satisy the following criterion:

i) A minimum population of 5000

ii) Atleast 75% of the male working population engaged in non-agricultural pursuits

iii) Density of population of atleast 400 per sq. km. (or 1000 per sq. miles)

Rate of Urbanisation

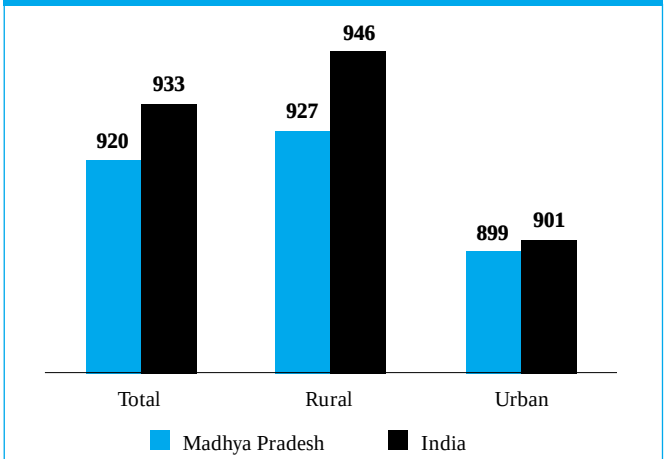
This is calculated by dividing the urban population by the total population and multiplying the quotient by 100.

Population below Poverty Line: 1999-2000

	Year	Madhya Pradesh	India
Share of India's Population	2001		
Total	5.9%		
Rural	6.0%		
Urban	5.6%		
Rate of Urbanisation	2001	26.7%	27.8%
Decadal Growth Rate	1991-2001	24.34	21.34
Sex Ratio	2001		
Total		920	933
Rural		927	946
Urban		899	901
Population Density (per sq.km)	2001	196	324

Source: Census of India 2001

Sex Ratios 2001: Madhya Pradesh and India



GL 4- POPULATION DISTRIBUTION, DECADAL GROWTH RATE, SEX RATIO AND DENSITY BY DISTRICT, 2001

District	Population 2001- All			Share of State Population	Rank in State	Population 1991- All		
	Persons	Male	Female			Persons	Male	Female
Balaghat	1445760	714938	730822	2.39%	18	1365870	682260	683610
Barwani	1081039	547837	533202	1.79%	34	832422	423809	408613
Betul	1394421	709525	684896	2.31%	22	1181501	600935	580566
Bhind	1426951	780122	646829	2.36%	20	1219000	671347	547653
Bhopal	1836784	968964	867820	3.04%	7	1351479	715283	636196
Chhatarpur	1474633	788845	685788	2.44%	17	1158076	623878	534198
Chhindwara	1848882	946582	902300	3.06%	6	1568702	803386	765316
Damoh	1081909	568704	513205	1.79%	33	898125	471384	426741
Datia	627818	337842	289976	1.04%	41	515360	279041	236319
Dewas	1306617	676414	630203	2.16%	23	1033807	537426	496381
Dhar	1740577	890853	849724	2.88%	9	1367412	700952	666460
Dindori	579312	290572	288740	0.96%	42	658482	330370	328112
East Nimar (Khandwa)	1708170	882371	825799	2.83%	11	1431662	738883	692779
Guna	1665503	883433	782070	2.76%	12	1310317	698747	611570
Gwalior	1629881	882258	747623	2.70%	13	1293567	706337	587230
Harda	474174	247129	227045	0.79%	45	380762	198908	181854
Hoshangabad	1085011	571796	513215	1.80%	32	886449	468505	417944
Indore	2585321	1352849	1232472	4.28%	1	1835915	963311	872604
Jabalpur	2167469	1134870	1032599	3.59%	2	1768037	928898	839139
Jhabua	1396677	701742	694935	2.31%	21	1130405	571764	558641
Katni	1063689	548077	515612	1.76%	36	881925	454756	427169
Mandla	893908	446487	447421	1.48%	38	632781	319074	313707
Mandsaur	1183369	604942	578427	1.96%	29	956869	491565	465304
Morena	1587264	871243	716021	2.63%	14	1279094	707477	571617
Narsimhapur	957399	501407	455992	1.59%	37	785496	410693	374803
Neemuch	725457	371972	353485	1.20%	40	598339	307916	290423
Panna	854235	447923	406312	1.41%	39	687945	362727	325218
Raisen	1120159	595730	524429	1.86%	31	876461	466389	410072
Rajgarh	1253246	648850	604396	2.08%	25	992764	516152	476612
Ratlam	1214536	620119	594417	2.01%	27	971888	498798	473090
Rewa	1972333	1017402	954931	3.27%	4	1554987	805000	749987
Sagar	2021783	1073032	948751	3.35%	3	1647736	876079	771657
Satna	1868648	970114	898534	3.09%	5	1465384	763983	701401
Sehore	1078769	565387	513382	1.79%	35	841358	443332	398026
Seoni	1165893	588135	577758	1.93%	30	1000831	507076	493755
Shahdol	1572748	803416	769332	2.60%	15	1323054	681962	641092
Shajapur	1290230	669419	620811	2.14%	24	1033248	538694	494554
Sheopur	559715	295630	264085	0.93%	43	431480	229516	201964
Shivpuri	1440666	775473	665193	2.39%	19	1132977	612821	520156
Sidhi	1830553	947276	883277	3.03%	8	1373434	714672	658762
Tikamgarh	1203160	637842	565318	1.99%	28	940829	502822	438007
Ujjain	1709885	881509	828376	2.83%	10	1383086	717018	666068
Umaria	515851	264998	250853	0.85%	44	420815	216708	204107
Vidisha	1214759	647632	567127	2.01%	26	970388	517858	452530
West Nimar (Khargone)	1529954	785212	744742	2.53%	16	1195723	616161	579562
Madhya Pradesh	**60385118**	**31456873**	**28928245**			**48566242**	**25394673**	**23171569**

Source: Census of India, Madhya Pradesh 1981, 1991 and 2001

GL 4- POPULATION DISTRIBUTION, DECADAL GROWTH RATE, SEX RATIO AND DENSITY BY DISTRICT, 2001

District	Population 2001- Rural			Population 1991- Rural		
	Persons	Male	Female	Persons	Male	Female
Balaghat	1251855	616599	635256	1236083	615256	620827
Barwani	923063	466442	456621	706536	358509	348027
Betul	1135542	574477	561065	961551	485361	476190
Bhind	1088798	596586	492212	967857	533892	433965
Bhopal	357665	189504	168161	270677	144516	126161
Chhatarpur	1150354	615753	534601	934552	503845	430707
Chhindwara	1396648	711762	684886	1206351	613313	593038
Damoh	877594	461224	416370	735203	385412	349791
Datia	490273	264301	225972	409995	222722	187273
Dewas	949255	490218	459037	766147	396449	369698
Dhar	1452342	737160	715182	1187702	605976	581726
Dindori	552450	276754	275696	635376	318297	317079
East Nimar (Khandwa)	1247838	644598	603240	1037491	534765	502726
Guna	1310768	696443	614325	1054741	562488	492253
Gwalior	646550	352668	293882	479520	264501	215019
Harda	373087	193959	179128	303175	157937	145238
Hoshangabad	749249	394642	354607	617520	325671	291849
Indore	735010	379428	355582	561397	292506	268891
Jabalpur	920965	478693	442272	759084	393495	365589
Jhabua	1275648	638984	636664	1032325	520671	511654
Katni	838731	430221	408510	684417	351044	333373
Mandla	801903	399274	402629	556837	279818	277019
Mandsaur	962736	491317	471419	764964	392291	372673
Morena	1244065	684877	559188	990495	548406	442089
Narsimhapur	804296	421084	383212	668708	349125	319583
Neemuch	523204	266897	256307	430975	220837	210138
Panna	746091	390570	355521	598378	314800	283578
Raisen	913319	484794	428525	738645	392102	346543
Rajgarh	1036096	535380	500716	825926	428601	397325
Ratlam	847139	431022	416117	662151	338472	323679
Rewa	1651858	847196	804662	1318172	677541	640631
Sagar	1430421	760970	669451	1166357	619205	547152
Satna	1483058	765318	717740	1176220	609756	566464
Sehore	884345	463061	421284	690025	363000	327025
Seoni	1045196	525746	519450	906024	457701	448323
Shahdol	1174613	593501	581112	1024794	521776	503018
Shajapur	1050890	544850	506040	850362	442939	407423
Sheopur	471135	248464	222671	369137	196354	172783
Shivpuri	1200994	647596	553398	960907	519937	440970
Sidhi	1569163	806043	763120	1284586	664376	620210
Tikamgarh	990785	526042	464743	781815	418538	363277
Ujjain	1047558	537543	510015	836403	431964	404439
Umaria	432939	221704	211235	350879	179809	171070
Vidisha	954480	509708	444772	775303	414142	361161
West Nimar (Khargone)	1292559	661883	630676	1016335	522175	494160
Madhya Pradesh	44282528	22975256	21307272	36292098	18890291	17401807

Source: Census of India, Madhya Pradesh 1981, 1991 and 2001

GL 4- POPULATION DISTRIBUTION, DECADAL GROWTH RATE, SEX RATIO AND DENSITY BY DISTRICT, 2001

District	Population 2001- Urban			Rate of Urbanisation	Population 1991- Urban		
	Persons	Male	Female		Persons	Male	Female
Balaghat	193905	98339	95566	13.4%	129787	67004	62783
Barwani	157976	81395	76581	14.6%	125886	65300	60586
Betul	258879	135048	123831	18.6%	219950	115574	104376
Bhind	338153	183536	154617	23.7%	251143	137455	113688
Bhopal	1479119	779460	699659	80.5%	1080802	570767	510035
Chhatarpur	324279	173092	151187	22.0%	223524	120033	103491
Chhindwara	452234	234820	217414	24.5%	362351	190073	172278
Damoh	204315	107480	96835	18.9%	162922	85972	76950
Datia	137545	73541	64004	21.9%	105365	56319	49046
Dewas	357362	186196	171166	27.4%	267660	140977	126683
Dhar	288235	153693	134542	16.6%	179710	94976	84734
Dindori	26862	13818	13044	4.6%	23106	12073	11033
East Nimar (Khandwa)	460332	237773	222559	26.9%	394171	204118	190053
Guna	354735	186990	167745	21.3%	255576	136259	119317
Gwalior	983331	529590	453741	60.3%	814047	441836	372211
Harda	101087	53170	47917	21.3%	77587	40971	36616
Hoshangabad	335762	177154	158608	30.9%	268929	142834	126095
Indore	1850311	973421	876890	71.6%	1274518	670805	603713
Jabalpur	1246504	656177	590327	57.5%	1008953	535403	473550
Jhabua	121029	62758	58271	8.7%	98080	51093	46987
Katni	224958	117856	107102	21.1%	197508	103712	93796
Mandla	92005	47213	44792	10.3%	75944	39256	36688
Mandsaur	220633	113625	107008	18.6%	191905	99274	92631
Morena	343199	186366	156833	21.6%	288599	159071	129528
Narsimhapur	153103	80323	72780	16.0%	116788	61568	55220
Neemuch	202253	105075	97178	27.9%	167364	87079	80285
Panna	108144	57353	50791	12.7%	89567	47927	41640
Raisen	206840	110936	95904	18.5%	137816	74287	63529
Rajgarh	217150	113470	103680	17.3%	166838	87551	79287
Ratlam	367397	189097	178300	30.2%	309737	160326	149411
Rewa	320475	170206	150269	16.2%	236815	127459	109356
Sagar	591362	312062	279300	29.2%	481379	256874	224505
Satna	385590	204796	180794	20.6%	289164	154227	134937
Sehore	194424	102326	92098	18.0%	151333	80332	71001
Seoni	120697	62389	58308	10.4%	94807	49375	45432
Shahdol	398135	209915	188220	25.3%	298260	160186	138074
Shajapur	239340	124569	114771	18.6%	182886	95755	87131
Sheopur	88580	47166	41414	15.8%	62343	33162	29181
Shivpuri	239672	127877	111795	16.6%	172070	92884	79186
Sidhi	261390	141233	120157	14.3%	88848	50296	38552
Tikamgarh	212375	111800	100575	17.7%	159014	84284	74730
Ujjain	662327	343966	318361	38.7%	546683	285054	261629
Umaria	82912	43294	39618	16.1%	69936	36899	33037
Vidisha	260279	137924	122355	21.4%	195085	103716	91369
West Nimar (Khargone)	237395	123329	113966	15.5%	179388	93986	85402
Madhya Pradesh	**16102590**	**8481617**	**7620873**	**26.7%**	**12274144**	**6504382**	**5769762**

Source: Census of India, Madhya Pradesh 1981, 1991 and 2001

GL 4- POPULATION DISTRIBUTION, DECADAL GROWTH RATE, SEX RATIO AND DENSITY BY DISTRICT, 2001

District	Decadal Growth Rate		Rank in growth:	Sex-ratio				Density (per sq. km.)		Rank in Density:
	1981-91	1991-2001	1991-2001	1991	2001	2001 Rural	2001 Urban	1991	2001	1991-2001
Balaghat	19.00	5.85	45	1002	1022	1030	972	148	157	32
Barwani	26.30	29.87	4	964	973	979	941	154	199	19
Betul	27.68	18.02	39	966	965	977	917	118	139	39
Bhind	25.18	17.06	41	816	829	825	842	273	320	5
Bhopal	51.05	35.91	2	889	896	887	898	488	663	1
Chhatarpur	30.61	27.33	11	856	869	868	873	133	170	25
Chhindwara	27.21	17.86	40	953	953	962	926	133	156	33
Damoh	24.49	20.46	36	905	902	903	901	123	148	36
Datia	26.01	21.82	33	847	858	855	870	192	233	12
Dewas	29.99	26.39	16	924	932	936	919	147	186	23
Dhar	29.31	27.29	12	951	954	970	875	168	213	15
Dindori	24.94	13.23	44	985	994	996	944	69	78	45
East Nimar (Khandwa)	24.11	19.31	37	938	936	936	936	133	159	30
Guna	30.77	27.11	14	875	885	882	897	118	151	35
Gwalior	27.97	26.00	18	831	847	833	857	284	357	4
Harda	29.14	24.53	22	914	919	924	901	114	142	37
Hoshangabad	25.01	22.40	31	892	898	899	895	132	162	29
Indore	30.26	40.82	1	906	911	937	901	471	663	1
Jabalpur	19.12	22.59	29	903	910	924	900	339	416	3
Jhabua	42.16	23.56	27	977	990	996	929	167	206	17
Katni	23.43	20.61	35	939	941	950	909	178	215	13
Mandla	24.17	14.66	43	990	1002	1008	949	134	154	34
Mandsaur	23.42	23.67	25	947	956	960	942	173	214	14
Morena	30.58	24.09	24	808	822	816	842	256	318	6
Narsimhapur	20.76	21.88	32	913	909	910	906	153	187	22
Neemuch	22.58	21.25	34	943	950	960	925	141	170	25
Panna	27.40	24.17	23	897	907	910	886	96	120	43
Raisen	23.35	27.80	9	879	880	884	864	104	132	41
Rajgarh	23.88	26.24	17	923	931	935	914	161	204	18
Ratlam	24.17	24.97	20	948	959	965	943	200	250	9
Rewa	28.77	26.84	15	932	939	950	883	246	312	7
Sagar	24.53	22.70	28	881	884	880	895	161	197	20
Satna	27.05	27.52	10	918	926	938	883	195	249	10
Sehore	27.99	28.22	6	898	908	910	900	128	164	28
Seoni	23.60	16.49	42	974	982	988	935	114	133	40
Shahdol	28.96	18.87	38	940	958	979	897	133	158	31
Shajapur	22.97	24.87	21	918	927	929	921	167	208	16
Sheopur	33.32	29.72	5	880	893	896	878	65	85	44
Shivpuri	30.84	27.16	13	849	858	855	874	110	140	38
Sidhi	38.67	33.28	3	922	932	947	851	130	174	24
Tikamgarh	27.66	27.88	8	871	886	883	900	186	238	11
Ujjain	23.82	23.63	26	929	940	949	926	227	281	8
Umaria	31.83	22.58	30	942	947	953	915	103	127	42
Vidisha	23.92	25.18	19	874	876	873	887	132	165	27
West Nimar (Khargone)	23.04	27.95	7	941	948	953	924	149	191	21
Madhya Pradesh	27.24	24.34		912	920	927	899	158	196	

Source: Census of India, Madhya Pradesh 1981, 1991 and 2001

Table GL 5 gives the districtwise percentage decadal variation in population over the last 10 decades and the change in decadal growth rate between 1981-91 and 1991-2001. The table also ranks the districts based on decadal growth rate between 1981-1991 and 1991-2001 and the change in decadal growth rate between 1981-1991 and 1991-2001

Decadal Growth Rate

This is the growth of population in a decade and is calculated by dividing the change in population by total population and multiplying the quotient by 100.

Change in Decadal Growth Rate

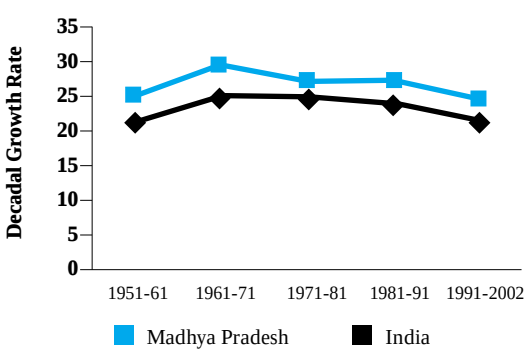
This shows the change (growth or decline) in the decadal growth rate between the decades 1981-1991 and 1991-2001

Decadal Growth Rate

Year	Madhya Pradesh	India
1981-1991	27.24	23.86
1991-2001	24.34	21.34

Source: Census of India 1951, 1961, 1971, 1981, 1991 and 2001

Decadal Growth Rate 1951-61 to 1991-01: Madhya Pradesh and India



GL 5: PERCENTAGE DECADAL VARIATION IN POPULATION OVER 100 YEARS

District	1901-11	1911-21	1921-31	1931-41	1941-51	1951-61	1961-71	1971-81
Balaghat	19.00	7.50	9.77	12.95	9.31	16.34	21.18	17.40
Barwani	36.53	10.07	18.21	14.99	11.44	24.53	26.99	27.71
Betul	35.64	-6.83	11.69	7.90	3.04	24.08	31.37	25.70
Bhind	-4.54	-4.56	9.27	14.80	6.87	21.44	23.83	22.65
Bhopal	8.61	-10.27	16.71	15.18	24.95	57.73	53.93	56.38
Chhatarpur	8.02	-8.22	-0.76	6.92	3.68	22.08	21.28	24.46
Chhindwara	26.74	-4.81	16.56	6.53	5.85	21.52	25.95	24.63
Damoh	16.73	-13.79	6.42	11.96	4.15	22.63	30.78	25.85
Datia	-10.34	-4.64	7.95	10.15	0.23	22.06	27.87	21.16
Dewas	20.11	-2.40	14.37	6.27	5.85	29.42	32.99	33.81
Dhar	17.11	14.66	9.88	9.54	6.38	27.74	30.85	25.53
Dindori	26.49	-4.60	15.91	12.47	8.33	37.89	26.62	22.26
East Nimar (Khandwa)	19.36	1.42	17.83	9.91	5.27	30.88	28.34	31.19
Guna	18.23	-2.94	11.35	12.07	1.07	23.64	31.54	27.85
Gwalior	-20.04	6.00	11.51	22.74	20.34	24.26	30.51	30.30
Harda	0.18	-3.48	9.62	0.83	-0.12	27.73	28.48	22.63
Hoshangabad	3.83	-2.63	9.40	-0.10	1.71	18.99	31.07	25.00
Indore	-9.82	24.45	12.36	19.34	32.23	25.38	36.03	37.49
Jabalpur	10.09	0.09	4.69	21.12	18.83	24.29	36.29	32.53
Jhabua	39.56	15.98	16.90	17.40	11.49	34.42	9.83	19.07
Katni	8.88	-0.20	2.37	12.65	8.95	17.59	25.22	26.21
Mandla	27.71	-4.66	15.05	13.58	8.64	18.09	28.25	16.28
Mandsaur	16.84	4.17	13.86	16.08	18.17	25.11	26.88	30.68
Morena	-0.84	-8.52	11.23	13.70	10.19	22.37	25.74	31.95
Narsimhapur	3.22	-3.23	2.01	4.20	1.23	21.61	25.91	25.26
Neemuch	6.93	2.36	12.87	20.96	15.26	22.18	29.44	32.56
Panna	25.13	-2.08	6.12	15.85	4.19	27.57	29.53	25.83
Raisen	8.61	-5.95	-1.73	4.73	1.61	30.46	34.42	28.48
Rajgarh	26.44	-6.40	12.68	9.73	6.37	20.90	24.66	24.37
Ratlam	2.47	0.21	18.54	15.39	13.90	26.67	29.58	24.93
Rewa	6.71	-3.18	6.71	14.44	8.06	21.90	26.57	23.49
Sagar	15.24	-2.38	3.13	9.56	6.56	25.21	33.36	24.55
Satna	17.35	-13.11	8.27	15.41	4.72	25.22	31.56	26.26
Sehore	8.70	-4.84	8.33	5.98	2.05	34.27	33.99	28.67
Seoni	20.68	11.95	12.86	7.52	2.53	20.66	27.61	21.15
Shahdol	14.40	-7.03	20.18	14.97	8.96	25.48	25.91	30.28
Shajapur	9.19	-1.80	10.60	12.56	6.11	21.45	28.93	23.86
Sheopur	-3.07	-8.92	5.43	12.54	10.61	27.69	25.94	33.20
Shivpuri	12.11	-9.38	6.83	10.99	3.73	17.19	21.26	27.99
Sidhi	16.50	-13.89	14.71	17.21	9.46	24.95	33.90	27.51
Tikamgarh	2.60	-13.66	9.75	11.96	3.15	24.44	24.85	29.55
Ujjain	15.18	-0.76	17.58	14.48	19.58	21.79	30.34	29.51
Umaria	14.25	-7.38	21.52	11.82	10.51	34.08	18.68	31.72
Vidisha	30.25	17.20	-0.64	10.85	0.71	26.71	34.59	18.93
West Nimar (Khargone)	36.53	10.07	18.21	15.08	11.36	35.09	31.61	26.42
Madhya Pradesh	**12.38**	**-2.4**	**10.21**	**12.06**	**8.38**	**24.73**	**29.28**	**27.16**

Source: Census of India 2001, Madhya Pradesh, Series-24

GL 5: PERCENTAGE DECADAL VARIATION IN POPULATION OVER 100 YEARS

District	1981-91	1991-2001	Rank in Decadal Change between 1981 and 1991	Rank in Decadal Change between 1991 and 2001	Change in Decadal Growth Rate between 1981-91,1991-01	
					Change	Rank
Balaghat	19.00	5.85	45	45	-13.15	42
Barwani	26.30	29.87	23	4	3.57	4
Betul	27.68	18.02	18	39	-9.66	39
Bhind	25.18	17.06	25	41	-8.12	36
Bhopal	51.05	35.91	1	2	-15.14	43
Chhatarpur	30.61	27.33	8	11	-3.28	25
Chhindwara	27.21	17.86	21	40	-9.35	37
Damoh	24.49	20.46	29	35	-4.03	29
Datia	26.01	21.82	24	32	-4.19	30
Dewas	29.99	26.39	11	16	-3.6	26
Dhar	29.38	27.29	12	12	-2.09	20
Dindori	24.94	13.23	27	44	-11.71	41
East Nimar (Khandwa)	24.11	19.31	32	37	-4.8	32
Guna	30.77	27.11	7	14	-3.66	27
Gwalior	27.97	26.00	17	18	-1.97	19
Harda	29.14	24.53	13	22	-4.61	31
Hoshangabad	25.01	22.40	26	30	-2.61	22
Indore	30.26	40.82	10	1	10.56	1
Jabalpur	19.12	22.59	44	29	3.47	5
Jhabua	42.16	23.56	2	27	-18.6	44
Katni	23.43	20.61	37	34	-2.82	23
Mandla	24.17	14.66	30	43	-9.51	38
Mandsaur	23.42	23.67	38	25	0.25	12
Morena	30.58	24.09	9	24	-6.49	34
Narsimhapur	20.76	21.88	43	31	1.12	9
Neemuch	22.58	21.25	42	33	-1.33	16
Panna	27.40	24.17	20	23	-3.23	24
Raisen	23.35	27.80	39	9	4.45	3
Rajgarh	23.88	26.24	34	17	2.36	6
Ratlam	24.17	24.97	30	20	0.8	10
Rewa	28.77	26.84	15	15	-1.93	18
Sagar	24.53	22.70	28	28	-1.83	17
Satna	27.05	27.52	22	10	0.47	11
Sehore	27.99	28.22	16	6	0.23	13
Seoni	23.60	16.49	36	42	-7.11	35
Shahdol	28.96	18.87	14	38	-10.09	40
Shajapur	22.97	24.87	41	21	1.9	7
Sheopur	32.32	29.72	5	5	-2.6	21
Shivpuri	30.84	27.16	6	13	-3.68	28
Sidhi	38.67	33.28	4	3	-5.39	33
Tikamgarh	27.66	27.88	19	8	0.22	14
Ujjain	23.82	23.63	35	26	-0.19	15
Umaria	39.38	19.58	3	36	-19.8	45
Vidisha	23.92	25.18	33	19	1.26	8
West Nimar (Khargone)	23.04	27.95	40	7	4.91	2
Madhya Pradesh	27.24	24.34				

Source: Census of India 2001, Madhya Pradesh, Series-24

GL 6: DISTRICTWISE INFORMATION ON GEOGRAPHICAL AREA, TOWNS, VILLAGES AND ADMINISTRATIVE SETUP

Table GL 6 gives information on the geographical area of the districts of Madhya Pradesh. It also presents information on the number of towns and villages in each of the district as well as the administrative setup including the number of tehsils, blocks, Janpad Panchayats and Gram Panchayats.

TOWNS

A town is defined as all places within a municipality, corporation, cantonment, board or notified town area committee, etc. and all other places which satisfy the following criteria

i) a minimum population of 5000
ii) atleast 75% of male working population engaged in non agricultural pursuits
iii) a density of population of atleast 400 persons per square km.

VILLAGE:

A village consists of a habitation or a group of habitations or a hamlet or a group of hamlets comprising a community and managing its affair in accordance with tradition and customs. A village must satisfy the following criteria

i) a population of less than 5000
ii) atleast 75% of the male working population engaged in agricultural pursuits
iii) a density of persons less than 400 persons per sq. km.

GRAM PANCHAYAT:

For the purpose of the Madhya Pradesh Panchayat Raj Adhiniyam, 1993, a Gram Panchayat is constituted for a village under sub-section (1) of Section 10.

JANPAD PANCHAYAT

For the purpose of the Madhya Pradesh Panchayat Raj Adhiniyam, 1993 a Janpad Panchayat is constituted for a Block under sub-section (2) of section 10.

GL 6: DISTRICTWISE INFORMATION ON GEOGRAPHICAL AREA, TOWNS, VILLAGES AND ADMINISTRATIVE SETUP

District	Geographical area (in sq. kms.)	Tehsils	Administrative Blocks	Towns	Total Villages	Inhabited Villages	Janpad Panchyat	Gram Panchayat	Gram Sabhas
Balaghat	9229	7	10	6	1388	1269	10	665	1187
Barwani	5422	6	7	6	740	714	7	383	714
Betul	10043	5	10	6	1406	1328	10	555	1343
Bhind	4459	7	6	11	933	877	6	447	911
Bhopal	2772	2	2	2	542	511	2	194	518
Chhatarpur	8687	7	8	14	1192	1076	8	558	1086
Chhindwara	11815	9	11	22	1984	1903	11	808	1924
Damoh	7306	7	7	5	1399	1205	7	456	1159
Datia	2691	3	3	4	602	542	3	250	536
Dewas	7020	6	6	11	1134	1058	6	459	1058
Dhar	8153	7	13	9	1571	1487	13	669	1523
Dindori	7470	2	7	2	930	899	7	398	929
East Nimar (Khandwa)	10779	6	9	7	1068	1060	9	591	1240
Guna	11065	9	9	10	2265	2059	9	728	2063
Gwalior	4560	3	4	9	776	706	5	298	618
Harda	3330	3	3	3	571	497	3	181	495
Hoshangabad	6707	7	7	11	983	923	7	391	951
Indore	3898	4	4	10	645	624	4	304	652
Jabalpur	5211	4	7	14	1449	1449	7	525	1391
Jhabua	6782	8	12	8	1357	1313	12	612	1354
Katni	4950	5	6	4	955	882	6	409	879
Mandla	5800	4	9	5	1234	1214	9	423	1300
Mandsaur	5535	5	5	9	943	899	5	423	922
Morena	4989	6	7	6	799	760	7	475	771
Narsimhapur	5133	5	6	5	1081	1040	6	422	1118
Neemuch	4256	3	3	8	880	676	3	214	659
Panna	7135	5	5	6	1048	939	5	378	990
Raisen	8466	7	7	9	1509	1429	7	501	1407
Rajgarh	6154	6	6	12	1736	1664	6	569	1664
Ratlam	4861	6	6	9	1077	1051	6	406	1060
Rewa	6314	7	9	12	2725	2352	9	815	2140
Sagar	10252	8	11	13	2081	1868	11	753	1892
Satna	7502	8	8	11	2040	1784	8	710	1820
Sehore	6578	5	5	7	1072	1011	5	450	1022
Seoni	8758	6	8	4	1613	1585	8	598	1590
Shahdol	9952	8	9	16	1444	1390	9	670	1393
Shajapur	6196	8	8	12	1124	1068	8	509	1051
Sheopur	6606	3	3	3	607	533	3	219	562
Shivpuri	10278	7	8	7	1459	1326	8	605	1341
Sidhi	10526	9	8	6	1882	1822	8	716	1838
Tikamgarh	5048	6	6	12	973	863	6	443	893
Ujjain	6091	7	6	7	1135	1092	6	517	1113
Umaria	4076	2	3	4	662	646	2	223	594
Vidisha	7371	7	7	5	1624	1522	7	549	1522
West Nimar (Khargone)	8030	8	9	8	1431	1170	9	560	1534
Madhya Pradesh	**308256**	**263**	**313**	**370**	**56069**	**52086**	**313**	**22029**	**52727**

Source: District Statistical Handbooks and Census of India 2001

Table GL 7 gives information on the road infrastructure in Madhya Pradesh. The table presents available data on the length of national highways, state highways, district main roads and rural roads. It also gives data on the pucca and kutcha roads. Rural connectivity is shown by rural road length per village and percentage of villages not connected with pucca roads.

National Highways

These are main highways running through the length and breadth of the country, connecting to major ports, foreign highways and capitals of States/ Union territories and large industrial and tourist centres, and including roads required for strategic movements for the defence of the country.

State Highways

These are arterial roads of a State linking district headquarters and important cities within the State and connecting them with National Highways or Highways of the neighbouring States.

District Main Roads

These are important roads within a district, serving areas of production and markets and connecting these with each other or with the main Highways.

Village Roads

These are roads connecting villages/habitation or groups of habitations with each other and to the nearest road of a higher category.

GL 7: ROAD NETWORK IN DISTRICTS OF MADHYA PRADESH, 1999

District	National Highway (Km.)	State Highway (Km.)	District Main Roads (Km.)	Pucca Roads (Km.)	Kuccha Roads (Km.)	Pucca Rural Roads (Km.)
Balaghat	0.0	269.3	413.5	2157.6	656.3	1476.2
Barwani	71.4	52.0	205.0	1368.8	0.0	1040.6
Betul	126.2	133.6	401.1	1358.8	360.1	713.1
Bhind	0.0	274.8	281.2	1221.8	99.6	670.3
Bhopal	39.4	108.4	506.0	860.7	0.0	206.9
Chhatarpur	95.0	215.0	489.0	1640.1	613.9	906.3
Chhindwara	44.0	320.2	297.8	1595.9	545.9	933.9
Damoh	0.0	191.7	424.5	1357.7	196.9	744.6
Datia	40.0	105.0	114.9	519.7	23.4	260.2
Dewas	43.9	162.4	194.7	830.5	190.4	429.5
Dhar	188.2	107.6	550.8	1926.3	132.9	1079.7
Dindori	0.0	258.8	146.2	1079.5	87.3	674.5
East Nimar (Khandwa)	0.0	285.9	411.6	1872.2	38.8	1182.9
Guna	109.4	284.6	299.4	1266.3	122.5	595.6
Gwalior	129.2	28.0	277.4	1140.8	191.0	706.2
Harda	0.0	61.8	90.1	354.5	50.8	202.6
Hoshangabad	53.2	214.9	39.0	927.7	251.8	620.6
Indore	110.8	104.6	181.1	1327.9	169.0	947.4
Jabalpur	161.0	135.1	166.8	1485.9	131.0	1023.0
Jhabua	48.3	123.5	404.3	1832.1	545.6	1256.0
Katni	116.6	74.0	244.1	1048.4	135.3	613.7
Mandla	0.0	332.0	341.8	1417.8	336.6	743.2
Mandsaur	44.0	70.3	236.2	982.8	94.2	632.3
Morena	44.1	182.8	156.5	959.6	68.5	576.2
Narsimhapur	165.0	102.1	107.6	955.5	189.0	583.2
Neemuch	38.0	0.0	243.3	666.2	23.1	384.9
Panna	55.0	85.9	418.0	961.6	192.8	413.5
Raisen	199.4	118.2	317.5	820.5	131.6	207.4
Rajgarh	214.5	66.1	241.6	884.6	179.1	365.0
Ratlam	87.0	0.0	290.0	815.2	55.5	452.2
Rewa	159.9	122.7	282.8	1889.5	454.3	1330.9
Sagar	153.7	322.7	666.2	1757.4	265.7	647.0
Satna	176.3	188.8	347.4	2250.3	648.5	1547.0
Sehore	29.2	219.4	243.3	825.5	76.0	333.6
Seoni	166.7	135.1	196.4	1348.8	471.7	850.6
Shahdol	129.6	340.1	221.7	1815.6	650.6	1152.5
Shajapur	30.6	127.6	406.6	1304.0	139.0	750.3
Sheopur	0.0	201.3	60.5	681.1	0.0	419.3
Shivpuri	232.0	158.3	380.0	1311.7	98.4	548.9
Sidhi	0.0	183.2	355.3	2114.5	1268.4	1663.9
Tikamgarh	15.0	202.0	221.8	1270.1	156.7	832.3
Ujjain	17.6	146.6	457.4	1058.3	57.2	436.9
Umaria	55.0	95.1	46.0	550.9	245.8	354.8
Vidisha	0.0	327.9	307.6	905.8	148.1	317.4
West Nimar (Khargone)	14.7	265.7	252.8	2025.1	45.3	1502.9
Madhya Pradesh	**3403.9**	**7505.1**	**12936.8**	**56745.6**	**10538.6**	**33330.0**

Source: Sadak Sankhyiki 1999, Public Works Department, GoMP

GL 7: ROAD NETWORK IN DISTRICTS OF MADHYA PRADESH, 1999

District	Kuccha Rural Roads (Km.)	Rural Roads (Km.)	Total Road Length (Km.)	Road Length per 100 sq.km.	Rural Roads per Village (in Km)	Percentage of Villages not connected with Pucca Road
Balaghat	654.9	2131.1	2813.9	30.5	1.7	46.2
Barwani	0.0	1040.4	1368.8	25.2	1.5	58.3
Betul	344.9	1058.0	1718.9	17.1	0.8	72.9
Bhind	95.1	765.4	1321.4	29.6	0.9	43.3
Bhopal	0.0	206.9	860.7	31.0	0.4	50.0
Chhatarpur	548.7	1455.0	2254.0	25.9	1.4	61.6
Chhindwara	545.9	1479.8	2141.8	18.1	0.8	68.8
Damoh	193.8	938.4	1554.6	21.3	0.8	62.9
Datia	23.0	283.2	543.1	20.2	0.5	55.4
Dewas	190.4	619.9	1020.9	14.5	0.6	73.0
Dhar	132.9	1212.6	2059.2	25.3	0.8	70.5
Dindori	87.3	761.8	1166.8	15.6	0.7	71.9
East Nimar (Khandwa)	30.6	1213.5	1911.0	17.7	1.1	51.0
Guna	99.8	695.4	1388.8	12.6	0.3	75.5
Gwalior	191.0	897.2	1331.8	29.2	1.6	37.8
Harda	50.8	253.4	405.3	12.2	0.5	66.5
Hoshangabad	251.8	872.4	1179.5	17.6	0.9	66.5
Indore	153.0	1100.4	1496.9	38.4	1.8	49.3
Jabalpur	131.0	1154.0	1616.9	31.0	0.8	68.2
Jhabua	545.6	1801.6	2377.7	35.1	1.4	55.8
Katni	135.3	749.0	1183.7	23.9	0.8	68.2
Mandla	336.6	1080.6	1754.4	30.2	1.0	71.9
Mandsaur	94.2	726.5	1077.0	19.5	0.8	63.7
Morena	68.5	644.7	1028.1	20.6	0.8	43.9
Narsimhapur	186.6	769.8	1144.5	22.3	0.7	67.1
Neemuch	23.1	408.0	689.3	16.2	0.6	63.7
Panna	182.0	595.5	1154.4	16.2	0.6	65.0
Raisen	109.6	317.0	952.1	11.2	0.2	74.7
Rajgarh	176.5	541.5	1063.7	17.3	0.3	87.0
Ratlam	41.5	493.7	870.7	17.9	0.5	73.0
Rewa	447.5	1778.4	2343.8	37.1	0.8	55.4
Sagar	233.5	880.5	2023.1	19.7	0.5	73.1
Satna	639.3	2186.3	2898.8	38.6	1.2	55.0
Sehore	76.0	409.6	901.5	13.7	0.4	71.4
Seoni	471.7	1322.3	1820.5	20.8	0.8	75.0
Shahdol	622.3	1774.8	2466.2	24.8	1.3	65.1
Shajapur	127.9	878.2	1443.0	23.3	0.8	74.2
Sheopur	0.0	419.3	681.1	10.3	0.8	43.9
Shivpuri	90.9	639.8	1410.1	13.7	0.5	69.5
Sidhi	1180.5	2844.4	3382.9	32.1	1.6	56.9
Tikamgarh	155.7	988.0	1426.8	28.3	1.1	59.1
Ujjain	57.0	493.9	1115.5	18.3	0.5	76.2
Umaria	245.8	600.6	796.7	19.5	1.0	65.1
Vidisha	101.0	418.4	1053.9	14.3	0.3	71.0
West Nimar (Khargone)	34.3	1537.2	2070.4	25.8	1.3	58.3
Madhya Pradesh	**10107.8**	**43437.8**	**67284.2**	**21.8**	**0.8**	

Source: Sadak Sankhyiki 1999, Public Works Department, GoMP

Table GL 8 presents per capita domestic and non-domestic consumption of electricity and consumption per industrial and per agricultural unit. Rural electrification is shown by the percentage of villages electrified.

Per Capita Consumption of Electricity (kWH)

Year	Madhya Pradesh	India
1996-97	367	334

Source: Compendium of Power Statistics, MPEB, Jabalpur for M.P. and Annual Reports on the Working of State Electricity Boards and Electricity Department, Planning Commission, GoI for India

GL 8: ELECTRICITY CONSUMERS AND CONSUMPTION IN DISTRICTS OF MADHYA PRADESH

District	Per Capita Domestic Consumption (Kwh)			Per Capita Non-Domestic Consumption (Kwh)			Consumption per Industrial Unit (Kwh)		
	Total Consumption per Consumer	Rural Consumption per Consumer	Urban Consumption per Consumer	Total Consumption per Consumer	Rural Consumption per Consumer	Urban Consumption per Consumer	Consumption per Industrial Unit	Consumption per Rural Industrial Unit	Consumption per Urban Industrial Unit
Balaghat	538	453	695	874	566	1017	80430	136801	16340
Barwani	413	277	536	904	590	1045	13152	9494	15697
Betul	532	393	740	1145	865	1252	227173	179700	280614
Bhind	435	257	629	850	381	923	59800	138929	7462
Bhopal	1083	382	1174	2126	1307	2151	69508	7656	79017
Chhatarpur	460	215	781	1115	361	1260	173602	368663	14252
Chhindwara	417	212	657	1008	589	1102	69603	65061	72839
Damoh	456	320	616	733	394	831	79602	70828	90409
Datia	379	240	685	895	584	971	103521	89731	120805
Dewas	499	320	718	988	620	1112	65890	9160	105285
Dhar	508	403	689	1020	649	1294	137942	140488	135728
Dindori	252	210	457	623	427	869	42905	50986	8480
East Nimar (Khandwa)	548	300	793	1105	750	1194	44465	146318	12177
Guna	480	254	809	886	530	957	38480	80740	7872
Gwalior	646	214	756	1512	463	1574	33306	4245	40454
Harda	637	538	813	878	410	1043	62834	15032	87929
Hoshangabad	750	615	874	1137	532	1258	94107	50850	129610
Indore	1068	449	1098	1794	743	1806	37190	7561	38044
Jabalpur	864	410	1021	1579	1164	1603	50002	25726	54216
Jhabua	392	227	826	858	454	1063	44794	61303	10304
Katni	548	395	778	1060	660	1151	97092	88866	105437
Mandla	393	252	823	958	725	1064	67051	99324	15626
Mandsaur	558	399	784	809	421	979	32171	3996	59363
Morena	453	268	622	922	410	990	36699	52723	29108
Narsimhapur	484	337	715	947	548	1076	8818	10394	7031
Neemuch	560	370	768	844	548	929	202329	298972	149907
Panna	451	291	761	940	510	1111	13690	429	38127
Raisen	455	350	721	1130	777	1236	84890	16594	137588
Rajgarh	390	202	630	823	385	922	16162	15917	16345
Ratlam	627	305	885	942	500	1024	39029	27039	44992
Rewa	489	290	596	1153	547	1287	213847	181262	234736
Sagar	528	327	674	909	489	968	56301	42383	61872
Satna	578	356	742	1164	764	1213	125531	100344	140151
Sehore	444	322	646	1004	669	1090	42019	3462	84841
Seoni	418	341	674	841	604	974	12917	4582	36346
Shahdol	554	307	1019	1339	1114	1394	201739	63265	351046
Shajapur	531	412	717	876	578	979	33438	4158	67638
Sheopur	352	254	648	733	439	976	4458	3803	5995
Shivpuri	353	170	663	849	485	996	35327	62339	6858
Sidhi	420	273	588	1039	551	1205	257167	59286	463859
Tikamgarh	378	216	533	743	587	775	10744	15699	6369
Ujjain	695	345	932	1005	567	1076	38513	4113	48335
Umaria	446	278	1081	1119	965	1218	274633	31941	832356
Vidisha	634	479	927	1071	690	1155	48232	3745	82218
West Nimar (Khargone)	432	319	786	1050	714	1278	28526	21660	41554
Madhya Pradesh	**583**	**328**	**833**	**1220**	**610**	**1341**	**66445**	**62368**	**68791**

Source: Compendium of Power Statistics 1999-2000, Madhya Pradesh Electricity Board, Jabalpur

GL 8: ELECTRICITY CONSUMERS AND CONSUMPTION IN DISTRICTS OF MADHYA PRADESH

District	Consumption per Agriculture Unit (Kwh)			Villages Electrified		
	Consumption per Consumer	Consumption per Rural Consumer	Consumption per Urban Consumer	Total Villages	Electrified	Share of Electrified Villages
Balaghat	4866	4760	5224	1269	1170	92.2
Barwani	7170	6417	7964	714	637	89.22
Betul	5716	5762	5559	1328	1320	99.4
Bhind	7051	7136	6492	877	872	99.43
Bhopal	6985	7081	6537	511	511	100
Chhatarpur	5293	5160	5916	1076	1062	98.7
Chhindwara	3798	3679	3979	1903	1897	99.68
Damoh	7642	7536	8001	1205	1110	92.12
Datia	12770	12922	9849	542	539	99.45
Dewas	9457	9251	10248	1058	1053	99.53
Dhar	10033	9910	10397	1487	1479	99.46
Dindori	2523	2619	2349	1038	958	92.29
East Nimar (Khandwa)	9374	9577	8892	1060	1055	99.53
Guna	8727	8861	6690	2059	2036	98.88
Gwalior	8343	8134	9390	566	559	98.76
Harda	9643	9425	10617	497	445	89.54
Hoshangabad	7549	7792	7002	923	877	95.02
Indore	14253	14625	14168	624	620	99.36
Jabalpur	9400	9862	8207	1373	1339	97.52
Jhabua	5729	5876	5183	1313	1292	98.4
Katni	1951	2055	1456	884	843	95.36
Mandla	1346	1311	1449	1068	1032	96.63
Mandsaur	4619	4633	4573	899	899	100
Morena	15576	15397	16734	760	753	99.08
Narsimhapur	9662	9464	10412	1040	1038	99.81
Neemuch	7834	7911	7640	676	674	99.7
Panna	6219	6338	5886	939	921	98.08
Raisen	7546	7520	7850	1429	1349	94.4
Rajgarh	6650	6685	6395	1664	1664	100
Ratlam	9465	9484	9434	1051	1051	100
Rewa	8773	8294	9240	2352	2154	91.58
Sagar	4590	4704	4319	1868	1777	95.13
Satna	8049	8346	7748	1784	1661	93.11
Sehore	8567	8363	9800	1011	1008	99.7
Seoni	2273	2305	2069	1585	1542	97.29
Shahdol	3514	3518	3494	1388	1299	93.59
Shajapur	9681	9868	9103	1068	1065	99.72
Sheopur	19467	21016	11082	533	478	89.68
Shivpuri	6967	6861	7641	1326	1300	98.04
Sidhi	4020	3834	4332	1822	1804	99.01
Tikamgarh	5360	5282	5476	863	862	99.88
Ujjain	9183	8981	9970	1092	1092	100
Umaria	3063	2971	4104	589	554	94.06
Vidisha	4610	4682	3440	1522	1478	97.11
West Nimar (Khargone)	5499	5475	5896	1170	1142	97.61
Madhya Pradesh	**7681**	**7525**	**8135**	**51806**	**50271**	**97.04**

Source: Compendium of Power Statistics 1999-2000, Madhya Pradesh Electricity Board, Jabalpur

Table GL 9 presents data on the total number of exchanges, urban and rural exchanges and the number of telephone connections in each district. The physical access to telephones is shown by calculating the number of telephone connections per 100 population.

Number of Exchanges		
Year	Madhya Pradesh	India
2000	2377	25813

Source: Department of Telecom, Madhya Pradesh for M.P. and Department of Telecommunications, Government of India for India

GL 9: TELECOM CONNECTIONS (DOT) IN DISTRICTS OF MADHYA PRADESH, 2000

District	Total Exchanges	Number of Exchanges		Number of Connections	Connections per 100 population
		Rural	Urban		
Balaghat	44	41	3	10233	1.40
Barwani	39	37	2	7890	1.33
Betul	69	64	5	13234	1.04
Bhind	54	51	3	8530	1.65
Bhopal	28	27	1	104086	0.17
Chhatarpur	34	20	14	10554	1.36
Chhindwara	90	83	7	20270	0.90
Damoh	28	24	4	7065	1.50
Datia	17	16	1	5831	1.06
Dewas	88	81	7	18928	0.67
Dhar	120	111	9	21218	0.80
Dindori	9	9	0	706	8.10
East Nimar (Khandwa)	99	96	3	23582	0.71
Guna	71	60	11	16338	1.00
Gwalior	46	42	4	63703	0.25
Harda	57	56	1	7015	0.66
Hoshangabad	75	67	8	17285	0.62
Indore	59	55	4	153656	0.16
Jabalpur	62	52	10	61410	0.35
Jhabua	43	38	5	9171	1.49
Katni	26	24	2	9972	1.05
Mandla	27	26	1	4038	2.18
Mandsaur	77	76	1	17171	0.67
Morena	49	42	7	13215	1.18
Narsimhapur	61	57	4	11330	0.83
Neemuch	76	74	2	18644	0.38
Panna	19	13	6	4459	1.87
Raisen	61	54	7	10248	1.07
Rajgarh	51	37	14	9780	1.25
Ratlam	69	67	2	28713	0.41
Rewa	38	36	2	14799	1.30
Sagar	68	49	19	19684	1.01
Satna	41	34	7	18052	1.01
Sehore	52	48	4	12351	0.85
Seoni	45	44	1	7754	1.48
Shahdol	38	29	9	11421	1.35
Shajapur	81	72	9	12088	1.04
Sheopur	15	14	1	2917	1.87
Shivpuri	51	45	6	13262	1.06
Sidhi	26	22	4	6850	2.60
Tikamgarh	20	18	2	4708	2.49
Ujjain	103	96	7	37408	0.45
Umaria	10	5	5	2238	2.26
Vidisha	49	45	4	12438	0.95
West Nimar (Khargone)	92	89	3	15604	0.96
Madhya Pradesh	**2377**	**2146**	**231**	**899849**	**0.66**

Source: Department of Telecommunications

HABITAT

Table HA 1 gives the districtwise data on the forest cover and forest types of Madhya Pradesh comparing the situation in 1999 with that in 1993, 1995 and 1997. The data on forest cover to total area and per capita forest area is also presented in the table.

Dense Forest
All forests with tree cover of canopy density of 40 percent and above.

Open Forest
All forests with tree cover of canopy density between 10 to 40 percent.

Scrub Forest
All lands with poor tree growth mainly of small or stunted trees having canopy density less than 10 percent

Forest Cover to total area
This gives the percentage of forest cover to the total geographical area.

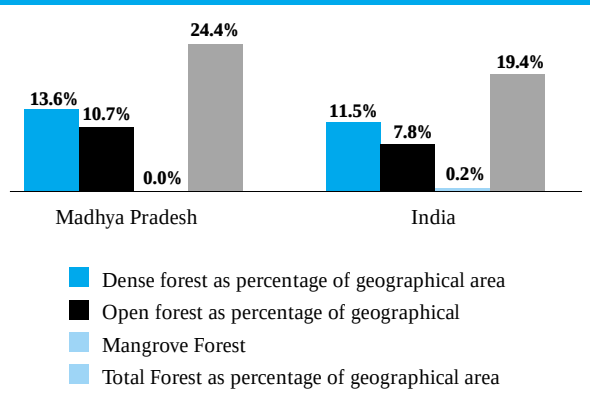
Change compared to 1997
This gives the change (growth or decline) in forest area in 1997 as compared to 1997.

Per capita forest area
Per capita forest area is obtained by dividing the total forest area in hectares by the total population.

	Year	Madhya Pradesh	India
Dense Forest as percentage of geographical area	1999	13.6%	11.48%
Dense Forest- Share of India	21.6%		
Open Forest as percentage of geographical area	1999	10.7%	7.76%
Open Forest- Share of India	19.7%		
Mangrove Forest	1999	0%	.15%
Mangrove Forest- Share of India	0%		
Total Forest as percentage of geographical area	1999	24.4%	19.39%
Total Forest- Share of India	20.7%		

Source: Forest Survey of India, 1999

Forest cover 1999: Madhya Pradesh and India



*: The methodology of the survey: IRS 1C/1D satellites of India, with a resolution of 23.5m, fed data on 11 states crucial to forestry studies; the rest were scanned by IRS 1B with a resolution 36m. And data on 13 key states were interpreted digitally. But conclusions were not reached merely on the basis of remote sensing data. FSI carried out extensive field trips for 'ground truthing', to confirm the accuracy of interpretation.

HA 1: FOREST COVER* IN DISTRICTS OF MADHYA PRADESH

District	Forest Cover Assessment Area 1993 (sq km)				Forest Cover to Total Area	Forest Area Assessment-1995 (in sq km)				Forest Cover to Total Area
	Geographic Area	Dense Forest	Open Forest	Total Forest		Geographic Area	Dense Forest	Open Forest	Total Forest	
Balaghat	9229	4590	328	4918	53.29%	9229	4536	383	4919	53.30%
Betul	10043	2906	654	3560	35.45%	10043	2943	617	3560	35.45%
Bhind	4459	17	56	73	1.64%	4459	17	55	72	1.61%
Bhopal	2772	47	190	237	8.55%	2772	41	192	233	8.41%
Chattarpur	8687	1414	200	1614	18.58%	8687	1353	258	1611	18.54%
Chhindwara	11815	3029	1391	4420	37.41%	11815	3010	1399	4409	37.32%
Damoh	7306	934	2200	3134	42.90%	7306	925	2200	3125	42.77%
Datia	2038	14	49	63	3.09%	2038	14	53	67	3.29%
Dewas	7020	1232	595	1827	26.03%	7020	1216	590	1806	25.73%
Dhar	8153	78	485	563	6.91%	8153	78	486	564	6.92%
East Nimar (Khandwa)	10779	2694	1432	4126	38.28%	10779	2653	1450	4103	38.06%
Guna	11065	1025	1593	2618	23.66%	11065	997	1603	2600	23.50%
Gwalior	5214	403	827	1230	23.59%	5214	393	852	1245	23.88%
Hoshangabad	10037	2590	760	3350	33.38%	10037	2751	606	3357	33.45%
Harda	Included in Hoshangabad									
Indore	3898	345	187	532	13.65%	3898	343	177	520	13.34%
Jabalpur	10160	1494	638	2132	20.98%	10160	1458	682	2140	21.06%
Katni	Included in Jabalpur									
Jhabua	6782	568	486	1054	15.54%	6782	566	478	1044	15.39%
Mandla	13269	4750	613	5363	40.42%	13269	4720	642	5362	40.41%
Dindori	Included in Mandla									
Mandsaur	9791	485	753	1238	12.64%	9791	485	750	1235	12.61%
Neemuch	Included in Mandsaur									
Morena	11594	1937	2658	4595	39.63%	11594	1924	2729	4653	40.13%
Sheopur	Included in Morena									
Narsimhapur	5133	664	574	1238	24.12%	5133	661	581	1242	24.20%
Panna	7135	743	2204	2947	41.30%	7135	739	2201	2940	41.21%
Raisen	8466	1568	979	2547	30.09%	8466	1572	964	2536	29.96%
Rajgarh	6154	225	147	372	6.04%	6154	225	148	373	6.06%
Ratlam	4861	34	221	255	5.25%	4861	34	221	255	5.25%
Rewa	6314	383	171	554	8.77%	6314	381	170	551	8.73%
Sagar	10252	1552	802	2354	22.96%	10252	1468	876	2344	22.86%
Satna	7502	359	1337	1696	22.61%	7502	359	1334	1693	22.57%
Sehore	6578	584	753	1337	20.33%	6578	578	752	1330	20.22%
Seoni	8758	2340	652	2992	34.16%	8758	2321	653	2974	33.96%
Shahdol	14028	3052	1334	4386	31.27%	14028	3046	1340	4386	31.27%
Umaria	Included in Shahdol									
Shajapur	6196	0	0	0	0.00%	6196	0	0	0	0.00%
Shivpuri	10278	921	1582	2503	24.35%	10278	894	1589	2483	24.16%
Sidhi	10526	3217	698	3915	37.19%	10526	3205	692	3897	37.02%
Tikamgarh	5048	76	187	263	5.21%	5048	68	182	250	4.95%
Ujjain	6091	0	0	0	0.00%	6091	0	0	0	0.00%
Vidisha	7371	533	437	970	13.16%	7371	526	443	969	13.15%
West Nimar (Khargone)	13450	1275	1661	2936	21.83%	13450	1257	1649	2906	21.61%
Barwani	Included in West Nimar									
Madhya Pradesh	**308252**	**48078**	**29834**	**77912**	**25.28%**	**308252**	**47757**	**29997**	**77754**	**25.22%**

Source : Forest Survey of India, 1993, 1995, 1997, 1999

HA 1: FOREST COVER* IN DISTRICTS OF MADHYA PRADESH

District	Forest Area Assessment-1997 (in sq km)				Forest Cover to Total Area	Forest Area Assessment-1999 (in sq km)			
	Geographic Area	Dense Forest	Open Forest	Total Forest		Geographic Area	Dense Forest	Open Forest	Total Forest
Balaghat	9229	3921	849	4770	51.7%	9229	3716	998	4714
Betul	10043	2964	635	3599	35.8%	10043	2922	678	3600
Bhind	4459	5	42	47	1.1%	4459	7	74	81
Bhopal	2772	40	257	297	10.7%	2772	94	191	285
Chattarpur	8687	844	715	1559	17.9%	8687	846	716	1562
Chhindwara	11815	2709	1965	4674	39.6%	11815	2690	1948	4638
Damoh	7306	721	2257	2978	40.8%	7306	816	2123	2939
Datia	2038	40	53	93	4.6%	2038	58	75	133
Dewas	7020	1103	535	1638	23.3%	7020	1108	536	1644
Dhar	8153	120	514	634	7.8%	8153	155	481	636
East Nimar (Khandwa)	10779	2327	1081	3408	31.6%	10779	2351	1134	3485
Guna	11065	458	1514	1972	17.8%	11065	778	1335	2113
Gwalior	5214	559	845	1404	26.9%	5214	456	846	1302
Hoshangabad	10037	2829	459	3288	32.8%	10037	2765	546	3311
Harda	Included in Hoshangabad								
Indore	3898	225	199	424	10.9%	3898	220	233	453
Jabalpur	10160	1087	916	2003	19.7%	10160	1178	806	1984
Katni	Included in Jabalpur								
Jhabua	6782	364	459	823	12.1%	6782	249	601	850
Mandla	13269	4628	1092	5720	43.1%	13269	4417	1366	5783
Dindori	Included in Mandla								
Mandsaur	9791	465	726	1191	12.2%	9791	367	779	1146
Neemuch	Included in Mandsaur								
Morena	11594	2779	1624	4403	38.0%	11594	2250	2292	4542
Sheopur	Included in Morena								
Narsimhapur	5133	773	572	1345	26.2%	5133	788	540	1328
Panna	7135	895	1814	2709	38.0%	7135	893	1822	2715
Raisen	8466	1659	932	2591	30.6%	8466	1552	1124	2676
Rajgarh	6154	20	104	124	2.0%	6154	37	71	108
Ratlam	4861	0	164	164	3.4%	4861	0	185	185
Rewa	6314	206	354	560	8.9%	6314	205	353	558
Sagar	10252	1276	1388	2664	26.0%	10252	1181	1483	2664
Satna	7502	554	1050	1604	21.4%	7502	618	997	1615
Sehore	6578	589	759	1348	20.5%	6578	603	705	1308
Seoni	8758	2151	1020	3171	36.2%	8758	2198	958	3156
Shahdol	14028	1991	2186	4177	29.8%	14028	2018	2176	4194
Umaria	Included in Shahdol								
Shajapur	6196	0	0	0	0.0%	6196	0	0	0
Shivpuri	10278	931	1400	2331	22.7%	10278	901	1509	2410
Sidhi	10526	2409	1614	4023	38.2%	10526	2402	1619	4021
Tikamgarh	5048	46	173	219	4.3%	5048	51	183	234
Ujjain	6091	0	1	1	0.0%	6091	0	1	1
Vidisha	7371	240	547	787	10.7%	7371	331	445	776
West Nimar (Khargone)	13450	957	1061	2018	15.0%	13450	841	1146	1987
Barwani	Included in West Nimar								
Madhya Pradesh	**308252**	**42885**	**31876**	**74761**	**24.3%**	**308252**	**42062**	**33075**	**75137**

Source : Forest Survey of India, 1993, 1995, 1997, 1999

HA 1: FOREST COVER* IN DISTRICTS OF MADHYA PRADESH

District	Forest Area Assessment-1999 (in sq kms.)			Per Capita Forest Area in 1999 (in hectare per person)
	Change Compared to 1997	Scrub	Forest Cover to Total Area	
Balaghat	-56	7	51.08%	0.330
Betul	1	62	35.85%	0.267
Bhind	34	55	1.82%	0.006
Bhopal	-12	48	10.28%	0.016
Chattarpur	3	56	17.98%	0.111
Chhindwara	-36	119	39.26%	0.259
Damoh	-39	5	40.23%	0.282
Datia	40	37	6.53%	0.022
Dewas	6	6	23.42%	0.132
Dhar	2	45	7.80%	0.038
East Nimar (Khandwa)	77	0	32.33%	0.211
Guna	141	135	19.10%	0.133
Gwalior	-102	116	24.97%	0.084
Hoshangabad	23	0	32.99%	0.318
Harda			Included in Hoshangabad	
Indore	29	8	11.62%	0.019
Jabalpur	-19	172	19.53%	0.095
Katni			Included in Jabalpur	
Jhabua	27	37	12.53%	0.063
Mandla	63	83	43.58%	0.665
Dindori			Included in Mandla	
Mandsaur	-45	92	11.70%	0.101
Neemuch			Included in Mandsaur	
Morena	139	695	39.18%	0.299
Sheopur			Included in Morena	
Narsimhapur	-17	84	25.87%	0.144
Panna	6	198	38.05%	0.332
Raisen	85	87	31.61%	0.251
Rajgarh	-16	34	1.75%	0.009
Ratlam	21	76	3.81%	0.016
Rewa	-2	69	8.84%	0.030
Sagar	0	115	25.99%	0.137
Satna	11	166	21.53%	0.091
Sehore	-40	22	19.88%	0.127
Seoni	-15	28	36.04%	0.279
Shahdol	17	134	29.90%	0.276
Umaria			Included in Shahdol	
Shajapur	0	5	0.00%	0.000
Shivpuri	79	364	23.45%	0.176
Sidhi	-2	87	38.20%	0.233
Tikamgarh	15	127	4.64%	0.020
Ujjain	0	0	0.02%	0.000
Vidisha	-11	118	10.53%	0.067
West Nimar (Khargone)	-31	147	14.77%	0.136
Barwani			Included in West Nimar	
Madhya Pradesh	**376**	**3639**	**24.38%**	**0.130**

Source : Forest Survey of India, 1993, 1995, 1997, 1999

Table HA 2 provides information on the extent of slums in the urban areas in terms of population and as percentage of urban population. The table also gives information on the other demographic indicators and social indicators in the slums like population in the age group of 0-6 years, overall sex ratio, juvenile sex ratio and the literacy rates both male and female in slum areas.

Slums

For the purpose of Census of India, 2001, the slum areas broadly constitute of:

1) All specified areas notified as 'Slum' by State/Local Government and UT Administration under any Act;
2) All areas recognized as 'Slum' by State/Local Government and UT Administration which may have not been formally notified as slum under any Act;
3) A compact area of at least 300 population or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infra-structure and lacking in proper sanitary and drinking water facilities.

Gender Ratio

This gives the number of females in population for thousand males. It is calculated by dividing the female population by male population and multiplying the quotient by 1000.

Juvenile Sex Ratio

This gives the number of females in population for thousand males in the age group of 0-6 years. It is calculated by dividing the female population in 0-6 years of age by male population in the same age group and multiplying the quotient by 1000.

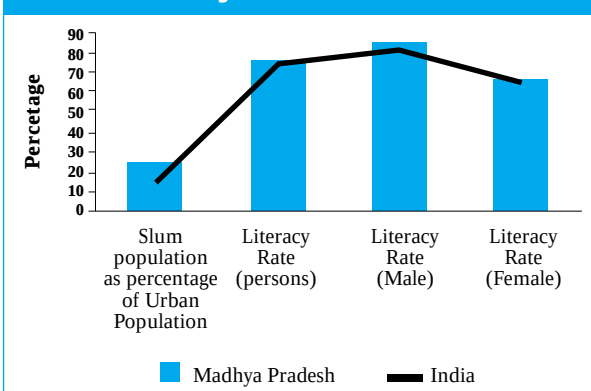
Literacy Rates

Literacy rate is calculated as the percentage of literate population over population above the age of 7 years.

	Year	Madhya Pradesh	India
Slum Population as percentage of Urban Population	2001	24.31	14.1
Gender Ratio in Slum Areas	2001	904	875
Juvenile Sex Ratio in Slum Area	2001	903	918
Literacy Rate in Slum Areas	2001		
Persons		75.7	73.7
Male		84.7	81.4
Female		65.7	65.0

Source: Forest Survey of India, 1999

Slum Population as a Percentage of Urban Population and Literacy Rates in Slum 2001: Madhya Pradesh and India



HA 2: SELECTED INFORMATION ON URBAN SLUMS AND TOWNS

District	Towns	Total Urban Population	Slum Area		
			Population	Slum Population as percentage of Urban Population	Gender Ratio
Balaghat	Balaghat(N.P)	75061	4347	5.79	973
Betul	Sarni(N.P)	95015	58421	61.49	900
Betul	Betul(N.P)	83287	62049	74.5	922
Bhind	Bhind (N.P.)	153768	38020	24.73	839
Bhopal	Bhopal(N.N)	1433875	126346	8.81	906
Chhatarpur	Chhatarpur (N.P.)	99519	26432	26.56	878
Chhindwara	Chindwara(N.P)	122309	12049	9.85	885
Chhindwara	Chichlikala-Parasiya (N.S)	93071	17382	18.68	943
Damoh	Damoh (N.P.)	112160	28023	24.98	905
Datia	Datia (N.P.)	82742	15122	18.28	891
Dewas	Dewas (N.N)	230658	95411	41.36	905
Dhar	Dhar (N.P)	75472	9888	13.1	868
Guna	Guna (N.P.)	137132	51501	37.56	882
Gwalior	Gwalior (N.N.)	826919	193635	23.42	867
Hoshangabad	Itarsi(N.P)	93783	10125	10.8	939
Hoshangabad	Hoshangabad(N.P)	97357	14532	14.93	876
Indore	Indore (N.N)	1597441	259577	16.25	902
Indore	Mohw (C.B.)	90220	0	0	0
Jabalpur	Jabalpur(N.N)	951469	275454	28.95	907
Jabalpur	Jabalpur Cantt.	66482	6680	10.05	928
Katni	Mudwara(N.N)	186738	36652	19.63	933
Khandwa	Khandwa(N.N)	171976	111360	64.75	940
Khandwa	Burhanpur(N.N)	194360	194360	100	943
Khargone	Khargone(N.P)	86443	40145	46.44	934
Mandausar	Mandausar (N.P.)	116483	21025	18.05	937
Morena	Morena (N.P)	150890	120617	79.94	830
Neemuch	Neemuch (N.P.)	107496	23434	21.8	930
Ratlam	Jawara (N.P)	63736	52111	81.76	949
Ratlam	Ratlam (N.N)	221267	63932	28.89	947
Rewa	Rewa (N.N)	183232	13032	7.11	887
Sagar	Sagar (N.N)	232321	8563	3.69	883
Sagar	Bina Eitawa (N.S.)	51189	22800	44.54	916
Satna	Satna (N.N.)	225468	35539	15.76	867
Sehore	Sehore(N.P)	90930	32656	35.91	897
Seoni	Seoni(N.P)	89799	28307	31.52	932
Shahdol	Shahdol (N.P)	78583	4609	5.87	881
Shahdol	Budhar Dhanpuri (N.S.)	91952	10247	11.14	916
Shivpuri	Shivpuri (N.P.)	146859	50225	34.2	885
Sidhi	Singroli (N.N)	185580	3134	1.69	833
Tikamgarh	Tikamgarh (N.P.)	68572	29978	43.72	882
Ujjain	Nagda (N.P)	96525	24026	24.89	906
Ujjain	Ujjain (N.N.)	429933	121028	28.15	923
Vidisha	Vidisha(N.P)	125457	35743	28.49	880
Madhya Pradesh		**9823309**	**2388517**	**24.31**	**904**

Source : Census of India 2001, Madhya Pradesh, Series-24, Paper-2

HA 2: SELECTED INFORMATION ON URBAN SLUMS AND TOWNS

District	Towns	Slum Area		Urban Literacy Rate	Literacy Rate in Slum Area		
		Populaation in age group 0-6	Juvenile Sex Ratio		Persons	Male	Female
Balaghat	Balaghat(N.P)	561	1070	88.9	77.28	87.27	66.88
Betul	Sarni(N.P)	7218	923	82.74	79.12	87.38	69.91
Betul	Betul(N.P)	8141	892	87.3	89.15	91.47	86.66
Bhind	Bhind (N.P.)	6793	868	81.18	67.61	80.61	51.99
Bhopal	Bhopal(N.N)	22305	944	80.12	66.23	75.83	55.55
Chhatarpur	Chhatarpur (N.P.)	4758	966	80.89	69.35	79.48	57.57
Chhindwara	Chindwara(N.P)	1552	839	86.31	81.69	89.01	73.48
Chhindwara	Chichlikala-Parasiya (N.S)	2285	1038	79.72	75.14	83.3	66.35
Damoh	Damoh (N.P.)	4397	942	84.01	76.37	86.71	64.87
Datia	Datia (N.P.)	2224	850	80.13	81.52	89.15	73.01
Dewas	Dewas (N.N)	15753	854	81.29	73.05	85.2	59.78
Dhar	Dhar (N.P)	1713	836	76.05	63.05	74.63	49.82
Guna	Guna (N.P.)	9131	898	78.4	66.81	79.9	51.91
Gwalior	Gwalior (N.N.)	28329	837	80.62	72.91	83.04	61.3
Hoshangabad	Itarsi(N.P)	1593	952	86.28	74.47	84.09	64.19
Hoshangabad	Hoshangabad(N.P)	2392	873	84.4	70.31	82.58	56.33
Indore	Indore (N.N)	36490	903	82.14	79.82	88.04	70.71
Indore	Mohw (C.B.)	0	0	82.73	0	0	0
Jabalpur	Jabalpur(N.N)	35409	927	84.76	81.15	87.58	74.03
Jabalpur	Jabalpur Cantt.	785	1071	92.49	86.01	93.91	77.33
Katni	Mudwara(N.N)	6319	952	82.63	65.99	77.27	53.85
Khandwa	Khandwa(N.N)	15143	945	82.47	81.97	88.53	74.98
Khandwa	Burhanpur(N.N)	29056	922	74.69	74.69	81.6	67.39
Khargone	Khargone(N.P)	7180	923	78.65	67.58	80.23	54.06
Mandausar	Mandausar (N.P.)	3555	943	82.22	67.77	80.06	54.63
Morena	Morena (N.P)	19137	806	78.25	77.45	88.48	64.24
Neemuch	Neemuch (N.P.)	3703	917	81.6	71.8	82.19	60.66
Ratlam	Jawara (N.P)	8482	935	73.33	70.16	79.76	60.09
Ratlam	Ratlam (N.N)	8764	957	86.46	78.95	88.09	69.28
Rewa	Rewa (N.N)	1922	932	82.03	79.12	87.01	70.14
Sagar	Sagar (N.N)	1200	926	86.2	78.43	86.31	69.44
Sagar	Bina Eitawa (N.S.)	4167	694	84.89	83.25	96.17	69.99
Satna	Satna (N.N.)	5872	981	81.67	75.32	84.07	64.98
Sehore	Sehore(N.P)	4806	900	79.74	76.85	85	67.75
Seoni	Seoni(N.P)	3704	876	87.27	85.32	92	75.22
Shahdol	Shahdol (N.P)	592	856	86.6	82.23	91.69	71.53
Shahdol	Budhar Dhanpuri (N.S.)	1565	986	75.47	67.04	76.92	56.1
Shivpuri	Shivpuri (N.P.)	8306	864	77.29	68.75	80.54	55.51
Sidhi	Singroli (N.N)	541	912	71.57	65.68	78.63	49.83
Tikamgarh	Tikamgarh (N.P.)	4775	942	82.67	78.09	87.27	67.55
Ujjain	Nagda (N.P)	3960	914	80.32	69.98	82.37	56.29
Ujjain	Ujjain (N.N.)	18925	926	82.87	70.54	81.84	58.3
Vidisha	Vidisha(N.P)	6516	957	82.66	73.45	84.27	60.92
Madhya Pradesh		**360019**	**903**	**79.68**	**75.68**	**84.71**	**65.68**

Table HA 3 gives information on extent of institutional provision of safe drinking water to villages. The table presents data from the Public Health Engineering Department of the government of Madhya Pradesh for villages covered with handpump for water.

SAFE DRINKING WATER

If the household has access to drinking water supplies from a tap, handpump or tubewell situated within or outside the premises, it is considered as having access to safe drinking water.

FULLY COVERED

The habitations where the norms of atleast 40 litres of safe drinking water per capita per day (lpcd) are fulfilled are said to be fully covered.

SHARE OF HABITATIONS FULLY COVERED

The percentage of habitations fully covered to the total habitations.

PARTIALLY COVERED

The habitations where some safe drinking water is provided but is less than 40 litres per capita per day are said to be partially covered. Partially covered habitations may fall in two categories, those getting 10-40 litres per capita per day and those getting even less than 10 litres per capita day.

SHARE OF HABITATIONS PARTIALLY COVERED

It is the percentage of habitations partially covered to the total habitations.

NOT COVERED

The habitations, which do not have access to safe drinking water at all, are said to be not covered.

SHARE OF HABITATIONS NOT COVERED

It is the percentage of habitations not covered to the total habitations.

HA 3: STATUS OF DRINKING WATER IN VILLAGES, INSTITUTIONAL PROVISION, 2000

District	Total Habitations	Habitations Fully Covered	Share of Habitations Fully Covered	Partially Covered		
				Upto 10 lpcd	10- 40 lpcd	Total
Balaghat	3281	3281	100.0%	0	0	0
Barwani	3932	3329	84.7%	61	390	451
Betul	2087	1795	86.0%	8	274	282
Bhind	1878	1179	62.8%	3	665	668
Bhopal	651	622	95.5%	0	29	29
Chattarpur	1594	979	61.4%	0	608	608
Chhindwara	3646	3235	88.7%	8	397	405
Damoh	1405	985	70.1%	2	375	377
Datia	710	676	95.2%	0	34	34
Dewas	1240	944	76.1%	1	295	296
Dhar	6438	6278	97.5%	4	81	85
Dindori	3005	2325	77.4%	113	541	654
East Nimar (Khandwa)	2252	2055	91.3%	2	186	188
Guna	3500	2959	84.5%	0	505	505
Gwalior	942	920	97.7%	0	20	20
Harda	632	543	85.9%	0	89	89
Hoshangabad	1258	1165	92.6%	0	86	86
Indore	898	858	95.5%	1	39	40
Jabalpur	1736	1680	96.8%	0	56	56
Jhabua	9927	9757	98.3%	14	4	18
Katni	1161	1083	93.3%	0	77	77
Mandla	3258	2363	72.5%	132	720	852
Mandsaur	1187	805	67.8%	6	374	380
Morena	4034	3095	76.7%	0	913	913
Narsinghpur	1550	1425	91.9%	0	120	120
Neemuch	808	704	87.1%	0	104	104
Panna	1339	1314	98.1%	0	9	9
Raisen	1925	1633	84.8%	7	282	289
Rajgarh	2163	2133	98.6%	0	30	30
Ratlam	1355	1126	83.1%	16	213	229
Rewa	6985	6199	88.7%	0	776	776
Sagar	2230	1708	76.6%	6	510	516
Satna	3999	3189	79.7%	0	806	806
Sehore	1175	871	74.1%	0	304	304
Seoni	2564	2520	98.3%	3	40	43
Shahdol	5511	5321	96.6%	2	124	126
Shajapur	1268	1042	82.2%	0	226	226
Sheopur	795	596	75.0%	0	197	197
Shivpuri	2062	1845	89.5%	0	217	217
Sidhi	5933	3303	55.7%	0	2602	2602
Tikamgarh	1799	1226	68.1%	1	422	423
Ujjain	1166	1036	88.9%	0	130	130
Umaria	1823	1693	92.9%	3	82	85
Vidisha	1962	1806	92.0%	0	156	156
West Nimar (Khargone)	2716	2407	88.6%	36	261	297
Madhya Pradesh	**111780**	**96008**	**85.9%**	**429**	**14369**	**14798**

Source : Public Health Engineering Department, Government of MP and National Commission on Population, Government of India

HA 3: STATUS OF DRINKING WATER IN VILLAGES, INSTITUTIONAL PROVISION, 2000

District	Share of Habitations Partially covered	Habitations Not Covered	Share of Habitations not covered	Percentage Coverage of Safe Drinking Water (Habitations)
Balaghat	0.0%	0	0.0%	69.69
Barwani	11.5%	152	3.9%	100.00
Betul	13.5%	10	0.5%	100.00
Bhind	35.6%	31	1.7%	64.48
Bhopal	4.5%	0	0.0%	100.00
Chattarpur	38.1%	7	0.4%	39.75
Chhindwara	11.1%	6	0.2%	99.36
Damoh	26.8%	43	3.1%	67.07
Datia	4.8%	0	0.0%	99.79
Dewas	23.9%	0	0.0%	100.00
Dhar	1.3%	75	1.2%	100.00
Dindori	21.8%	26	0.9%	67.18
East Nimar (Khandwa)	8.3%	9	0.4%	100.00
Guna	14.4%	36	1.0%	94.43
Gwalior	2.1%	2	0.2%	100.00
Harda	14.1%	0	0.0%	100.00
Hoshangabad	6.8%	7	0.6%	100.00
Indore	4.5%	0	0.0%	100.00
Jabalpur	3.2%	0	0.0%	100.00
Jhabua	0.2%	152	1.5%	100.00
Katni	6.6%	1	0.1%	100.00
Mandla	26.2%	43	1.3%	67.18
Mandsaur	32.0%	2	0.2%	51.33
Morena	22.6%	26	0.6%	76.17
Narsinghpur	7.7%	5	0.3%	100.00
Neemuch	12.9%	0	0.0%	51.33
Panna	0.7%	16	1.2%	48.87
Raisen	15.0%	3	0.2%	100.00
Rajgarh	1.4%	0	0.0%	99.55
Ratlam	16.9%	0	0.0%	100.00
Rewa	11.1%	10	0.1%	48.11
Sagar	23.1%	6	0.3%	75.26
Satna	20.2%	4	0.1%	53.34
Sehore	25.9%	0	0.0%	97.63
Seoni	1.7%	1	0.0%	81.29
Shahdol	2.3%	64	1.2%	46.91
Shajapur	17.8%	0	0.0%	100.00
Sheopur	24.8%	2	0.3%	76.17
Shivpuri	10.5%	0	0.0%	96.21
Sidhi	43.9%	28	0.5%	51.33
Tikamgarh	23.5%	150	8.3%	43.75
Ujjain	11.1%	0	0.0%	100.00
Umaria	4.7%	45	2.5%	46.91
Vidisha	8.0%	0	0.0%	80.52
West Nimar (Khargone)	10.9%	12	0.4%	100.00
Madhya Pradesh	13.2%	974	0.9%	79.44

Source : Public Health Engineering Department, Government of MP and National Commission on Population, Government of India

HEALTH

Table HE 1 gives details on Health Infrastructure available in the district such as Community Health Centres (CHC), Primary Health Centres (PHC), Sub Health Centre (SHC), District Hospitals, Urban Civil Hospitals, Post Partum Centres etc. The Table gives population per health centre, rural population per SHC and PHC and the average area in sq. kms. serviced per health institution in order to indicate the basic provisioning of these.

Sub Health Centre (SHC)

Each sub health centre caters to approximately 4-5 villages. They provide basic health care, maternal and child health services including family planning. They also undertake simple sanitation and health education tasks.

Primary Health Centre (PHC)

Each Primary Health Centre supervises six sub-health Centres. PHCs supervise community health outreach work and offer general medical and simple surgical services.

Community Health Centre (CHC)

The concept of Community Health Centre was introduced in 1985. CHCs serve upto 100 000 people and provide specialist medical, paediatric, obstetric and surgical services.

District Hospitals

The District Hospital provides specialist medical, paediatric, obstetric and surgical services on a large scale. Other specialities are also included as required from time to time.

Population per health institution

This indicates the basic provisioning of health institutions and is calculated by dividing the total population by the total number of health institutions. Health institutions here includes district hospitals, urban civil hospitals, community health centres, PHCs and SHCs.

Rural population served per PHC

This indicates the basic provisioning of health centres in rural areas and is calculated by dividing the rural population by the number of PHCs.

Rural population per SHC

This indicates the basic provisioning of health centres in rural areas and is calculated by dividing the rural population by the number of SHCs.

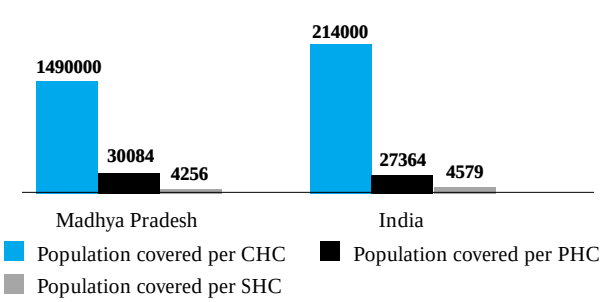
Average area serviced per health institution

This indicates the physical accessibility of health institutions and is obtained by dividing the total geographical area by the number of health institutions.

	Year	Madhya Pradesh	India
Population covered per Primary Health Centres*	1996	30084	27364
Population covered per Sub Health Centres*	1996	4256	4579
Population covered per Community Health Centres (in 000)*	1996	149	214

Source: National Human Development Report, 2001

Population Covered Per Rural Health Facility 1996: Madhya Pradesh and India



HE 1: HEALTH INSTITUTIONS IN MADHYA PRADESH, 2001

District	District Hospital	Urban Civil Hospital	Community Health Center (CHC)	Primary Health Center	Sub Health Center
	Units	Units	Units	Units	Units
Balaghat	1	1	6	35	286
Barwani	1	1	5	31	240
Betul	1	0	6	34	271
Bhind	1	0	7	19	183
Bhopal	1	2	2	10	63
Chhatarpur	1	0	4	41	189
Chhindwara	1	2	11	67	317
Damoh	1	0	1	15	162
Datia	1	2	1	11	87
Dewas	1	2	2	25	192
Dhar	1	0	10	50	400
Dindori	0	0	8	24	183
East Nimar (Khandwa)	1	1	7	46	271
Guna	1	1	6	24	216
Gwalior	0	4	3	15	101
Harda	0	1	2	7	61
Hoshangabad	1	2	5	16	143
Indore	1	4	3	26	111
Jabalpur	1	2	5	16	193
Jhabua	1	1	10	32	346
Katni	0	1	5	19	162
Mandla	1	0	7	28	215
Mandsaur	1	2	0	46	153
Morena	1	1	4	19	196
Narsimhapur	1	1	5	19	144
Neemuch	0	3	1	18	105
Panna	1	0	4	15	140
Raisen	1	0	5	23	175
Rajgarh	1	2	4	31	166
Ratlam	1	3	3	26	166
Rewa	0	0	9	30	268
Sagar	1	1	9	29	245
Satna	1	1	6	45	258
Sehore	1	1	5	17	152
Seoni	1	0	8	29	284
Shahdol	1	0	10	47	413
Shajapur	1	5	5	21	173
Sheopur	0	0	3	8	89
Shivpuri	1	0	6	13	199
Sidhi	1	0	8	42	302
Tikamgarh	1	0	5	18	156
Ujjain	1	5	2	21	170
Umaria	0	1	1	11	87
Vidisha	1	2	4	20	144
West Nimar (Khargone)	0	3	6	53	297
Madhya Pradesh	**36**	**59**	**229**	**1192**	**8874**

Directorate of Health Services, GoMP

HE 1: HEALTH INSTITUTIONS IN MADHYA PRADESH, 2001

District	Urban FW Centre			Urban	Post Partum Centre		Total Institutions
	Type I	Type II	Type III	Health Post	District level	level	Units
Balaghat	1	1	1	0	1	2	329
Barwani	0	1	0	0	1	1	278
Betul	0	0	1	0	1	3	312
Bhind	0	0	1	0	1	0	210
Bhopal	0	0	6	8	2	0	78
Chhatarpur	0	0	1	0	1	2	235
Chhindwara	0	0	2	0	1	1	398
Damoh	0	0	1	0	1	0	179
Datia	0	0	1	0	1	2	102
Dewas	0	1	1	0	1	2	222
Dhar	0	0	1	0	1	3	461
Dindori	0	0	0	0	0	0	215
East Nimar (Khandwa)	0	0	2	14	1	2	326
Guna	1	0	1	0	1	3	248
Gwalior	0	0	3	11	1	0	123
Harda	0	1	0	0	0	1	71
Hoshangabad	0	0	2	0	1	2	167
Indore	0	0	15	13	1	3	145
Jabalpur	1	1	4	17	1	1	217
Jhabua	0	0	1	0	1	2	390
Katni	0	0	2	5	0	2	187
Mandla	0	0	1	0	1	0	251
Mandsaur	1	0	1	0	1	2	202
Morena	0	0	1	0	1	2	221
Narsimhapur	1	0	1	0	1	1	170
Neemuch	0	0	1	0	0	4	127
Panna	0	0	1	0	1	0	160
Raisen	0	0	1	0	1	0	204
Rajgarh	1	0	1	0	1	1	204
Ratlam	1	1	1	3	1	2	199
Rewa	1	0	1	3	1	0	307
Sagar	0	1	3	3	1	1	285
Satna	1	0	1	0	1	1	311
Sehore	0	0	1	0	1	1	176
Seoni	0	0	1	0	1	1	322
Shahdol	1	0	2	0	1	0	471
Shajapur	1	0	1	0	1	1	205
Sheopur	0	0	0	0	0	0	100
Shivpuri	0	0	1	0	1	0	219
Sidhi	0	0	1	0	1	0	353
Tikamgarh	0	0	1	0	1	0	180
Ujjain	3	0	4	3	1	4	199
Umaria	0	0	0	0	0	1	100
Vidisha	1	0	1	0	1	1	171
West Nimar (Khargone)	1	0	1	0	0	2	359
Madhya Pradesh	**16**	**7**	**74**	**80**	**39**	**57**	**10390**

Directorate of Health Services, GoMP

HE 1: HEALTH INSTITUTIONS IN MADHYA PRADESH, 2001

District	Population per Health Centre	Rural Population per PHC	Rural Population Served per SHC	Average Area (in sq kms) serviced per Health Institution
Balaghat	4394	35767	4377	28.05
Barwani	3889	29776	3846	19.50
Betul	4469	33398	4190	32.19
Bhind	6795	57305	5950	21.23
Bhopal	23549	35767	5677	35.54
Chhatarpur	6275	28057	6087	36.97
Chhindwara	4645	20845	4406	29.69
Damoh	6044	58506	5417	40.82
Datia	6155	44570	5635	26.38
Dewas	5886	37970	4944	31.62
Dhar	3776	29047	3631	17.69
Dindori	2694	23019	3019	34.74
East Nimar (Khandwa)	5240	27127	4605	33.06
Guna	6716	54615	6068	44.62
Gwalior	13251	43103	6401	37.07
Harda	6679	53298	6116	46.90
Hoshangabad	6497	46828	5240	40.16
Indore	17830	28270	6622	26.88
Jabalpur	9988	57560	4772	24.01
Jhabua	3581	39864	3687	17.39
Katni	5688	44144	5177	26.47
Mandla	3561	28639	3730	23.11
Mandsaur	5858	20929	6292	27.40
Morena	7182	65477	6347	22.57
Narsimhapur	5632	42331	5585	30.19
Neemuch	5712	29067	4983	33.51
Panna	5339	49739	5329	44.59
Raisen	5491	39710	5219	41.50
Rajgarh	6143	33422	6242	30.17
Ratlam	6103	32582	5103	24.43
Rewa	6425	55062	6164	20.57
Sagar	7094	49325	5838	35.97
Satna	6009	32957	5748	24.12
Sehore	6129	52020	5818	37.38
Seoni	3621	36041	3680	27.20
Shahdol	3339	24992	2844	21.13
Shajapur	6294	50042	6075	30.22
Sheopur	5597	58892	5294	66.06
Shivpuri	6578	92384	6035	46.93
Sidhi	5186	37361	5196	29.82
Tikamgarh	6684	55044	6351	28.04
Ujjain	8592	49884	6162	30.61
Umaria	5159	39358	4976	40.76
Vidisha	7104	47724	6628	43.11
West Nimar (Khargone)	4262	24388	4352	22.37
Madhya Pradesh	**5812**	**37150**	**4990**	**30**

Directorate of Health Services, GoMP

Table HE 2 presents indirect estimates for Infant Mortality Rate, Child Mortality, Life Expectancy at age 0 for different sections of the populations for 1991, and some comparative figures for 1981. These estimates are based on fertility data on total number of children born and surviving of every married woman, given by the census. Based on these data, IMR is calculated using Pearson's method suggested by Census of India. Mortpak Lite, a United Nations Programme for demography, was used extensively for these figures. While the estimate for Infant Mortality match well with the 1991 Sample Registration Scheme (SRS) estimates, they are subject to modification due to need to smoothen the population table. Thus the estimate may get modified, but for the purpose of comparative analysis, and a fairly accurate picture of the status of longevity, the figures are very useful and suffice well. The estimates are also provided for rural and urban and male and female. Estimates of male and female life expectancy were also calculated using the widow techniques. However, the result did not compare well with SRS estimates and hence were dropped.

Life Expectancy

Life Expectancy (in years at birth): Life expectancy is the number of years a newborn would live if the current mortality conditions (i.e. age-specific mortality rate) prevailed throughout its life.

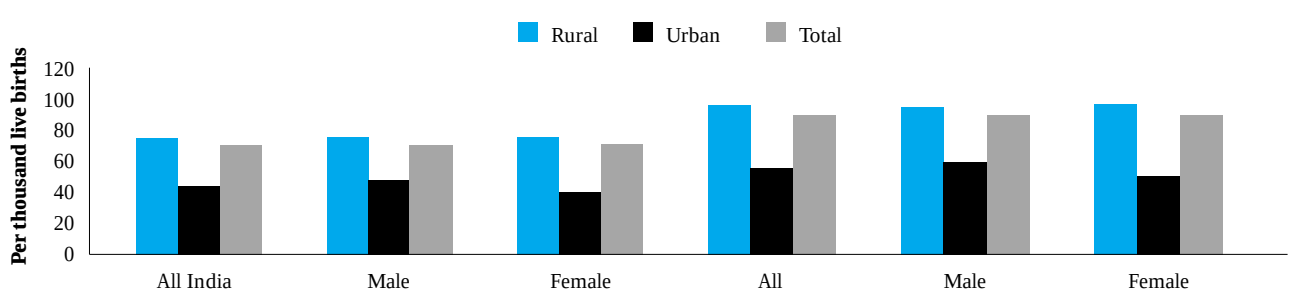
Infant Mortality Rate (IMR)

Infant Mortality Rate: Infant Mortality Rate is the number of deaths of infants less than one year of age per thousand live births. It is calculated by dividing the number of infant deaths during the year by number of live births during the year and multiplying the quotient by 1000.

Child Mortality Rate (ages 1-5)

Child Mortality Rate (ages 1-5) is the number of deaths among children aged 1-5 years per 1000 children in the same age group.

Infant Mortality Rate 1991: Madhya Pradesh



	Year	Madhya Pradesh	India
Life Expectancy at birth Total	1992-96		
All		55.2	60.7
Male		55.1	60.1
Female		54.7	61.4
Life Expectancy at birth Rural	1992-96		
All		53.7	59.4
Male		53.9	58.9
Female		53.4	59.8
Life Expectancy at birth Urban	1992-96		
All		63.0	66.3
Male		61.6	64.9
Female		63.4	67.7
IMR All	1999		
All		89.5	70.0
Male		89.6	69.8
Female		89.5	70.8
IMR Rural	1999		
All		95.8	75.4
Male		94.9	75.6
Female		96.8	75.2
IMR Urban	1999		
All		55.3	43.8
Male		59.6	47.4
Female		50.7	39.7
CMR All	1991		
All		94	147
Male		91	142
Female		101	151

HE 2: LIFE EXPECTANCY AND MORTALITY RATES

District	Life Expectancy - All					Infant Mortality Rate - All	
	Census : 1951-61	Census : 1961-71	Census : 1971-81	Census : 1981-91 (p)	2001 (projected)	1981	1991 (p)
Balaghat	42.7	45.3	51.29	55.9	58.5	133	110
Betul	40.8	43.0	48.63	51.9	54.7	148	128
Bhind	40.5	42.7	50.30	57.7	59.9	139	102
Bhopal*			59.14	65.0	64.9	91	70
Chhatarpur	34.4	36.6	43.96	47.3	50.4	175	150
Chhindwara	41.5	43.8	51.72	57.4	60.4	131	103
Damoh	37.6	39.2	44.35	53.1	54.0	173	123
Datia	37.7	39.3	43.83	54.7	55.2	176	115
Dewas	42.5	45.0	53.60	60.2	63.3	121	90
Dhar	44.0	46.7	53.16	61.7	63.4	123	84
E. Nimar (Khandwa)	43.2	45.9	47.67	58.1	57.7	154	100
Guna	39.5	41.4	47.13	51.5	53.5	157	130
Gwalior	44.6	47.4	51.43	64.9	65.3	133	70
Hoshangabad	41.6	44.0	45.93	56.0	55.6	164	109
Harda		Included in Hoshangabad			55.6	Included in Hoshangabad	
Indore	49.3	43.0	61.29	63.9	69.7	80	75
Jabalpur	43.3	45.9	48.08	57.8	57.5	151	101
Katni		Included in Jabalpur			57.5	Included in Jabalpur	
Jhabua	43.5	45.8	51.29	51.5	55.8	133	130
Mandla	42.8	45.3	51.72	60.9	62.6	131	88
Dindori		Included in Mandla			62.6	Included in Mandla	
Mandsaur	42.2	44.7	50.16	57.1	58.5	140	104
Neemuch		Included in Mandsaur			58.5	Included in Mandsaur	
Morena	45.5	45.0	49.60	58.0	57.4	143	100
Sheopur		Included in Morena			57.4	Included in Morena	
Narsimhapur	41.0	43.3	48.08	55.9	56.9	151	110
Panna	35.1	36.7	44.09	50.8	53.0	175	133
Raisen	39.2	41.1	47.95	52.8	55.3	152	124
Rajgarh	39.2	46.0	45.93	53.3	54.2	164	122
Ratlam	44.2	47.0	49.88	57.9	58.1	141	100
Rewa	40.5	42.6	47.54	51.9	53.6	155	128
Sagar	42.3	44.8	46.59	54.4	54.0	160	116
Satna	37.8	39.5	43.96	48.7	49.6	175	143
Sehore	37.4	39.0	44.87	53.2	54.5	170	122
Seoni	43.1	45.7	51.29	58.5	59.9	133	98
Shahdol	39.8	41.9	47.40	55.9	57.1	155	110
Umaria		Included in Shahdol			57.1	Included in Shahdol	
Shajapur	38.6	40.4	46.59	56.9	58.3	160	105
Shivpuri	37.4	38.7	43.57	44.5	47.3	178	164
Sidhi	41.2	43.5	48.77	56.8	58.0	147	105
Tikamgarh	34.7	35.8	42.93	51.0	52.8	182	132
Ujjain	46.4	49.6	53.46	58.3	59.8	121	99
Vidisha	38.1	39.9	46.86	52.7	54.7	158	124
W. Nimar (Khargone)	43.4	46.0	52.15	57.1	59.6	129	104
Barwani		Included in West Nimar			59.6	Included in West Nimar	

Source : Census of India, 1981, 1991, F Series, Madhya Pradesh, Sanket-MPHDRO

*These estimates are provisionally calculated by the MPHDRO office based on Fertility Tables of 1991 Census.

HE 2: LIFE EXPECTANCY AND MORTALITY RATES

District	All Male : Years : 1981-91 (**)			All Female : 1981-91 (**)			(Rural : 1981-91 (**)		
	Infant Mortality Rate (per 1000 live birth	Child Mortality-ages 1-5 (per 1000 live births	Life Expectancy (in years at birth)	Infant Mortality Rate (per 1000 live births)	Child Mortality-ages 1-5 (per 1000 live births)	Life Expectancy (in years at birth)	Infant Mortality Rate (per 1000 live births)	Child Mortality-ages 1-5 (per 1000 live births)	Life Expectancy (in years at birth)
Balaghat	108	66	56.2	111	69	55.6	114	71	55
Betul	126	86	52.2	129	88	51.7	137	98	50
Bhind	83	41	62	122	80	53.3	107	65	56.4
Bhopal*	72	32	64.6	69	30	65.3	129	88	51.8
Chhatarpur	135	96	50.3	165	133	44.4	156	122	46.1
Chhindwara	97	54	58.8	109	67	56	108	66	56.2
Damoh	124	83	52.8	120	79	53.6	130	90	51.4
Datia	106	63	56.8	125	84	52.5	125	83	52.6
Dewas	85	43	61.6	97	54	58.8	103	61	57.3
Dhar	82	40	62.2	88	46	60.8	89	47	60.5
E. Nimar (Khandwa)	102	59	57.6	98	56	58.6	112	70	55.3
Guna	117	75	54.2	143	106	48.7	133	93	50.8
Gwalior	68	30	65.5	75	35	63.9	96	54	58.9
Hoshangabad	103	61	57.3	116	74	54.5	119	78	53.8
Harda				Included in Hoshangabad					
Indore	66	28	66	83	42	61.9	93	50	59.8
Jabalpur	106	63	56.8	95	53	59.2	129	89	51.7
Katni				Included in Jabalpur					
Jhabua	115	73	54.7	145	107	48.4	131	91	51.2
Mandla	89	47	60.5	85	43	61.5	88	46	60.8
Dindori				Included in Mandla					
Mandsaur	103	61	57.3	106	63	56.8	111	68	55.7
Neemuch				Included in Mandsaur					
Morena	89	47	60.5	112	69	55.54	107	64	56.5
Sheopur				Included in Morena					
Narsimhapur	101	58	57.9	119	77	53.9	114	71	55
Panna	123	82	53	143	105	48.8	139	100	49.6
Raisen	127	87	52	120	78	53.7	130	90	51.4
Rajgarh	84	42	61.8	130	90	51.4	128	88	51.8
Ratlam	105	53	56.8	95	52	59.2	120	79	53.5
Rewa	119	77	53.8	137	98	49.9	133	94	50.7
Sagar	118	76	54.1	115	73	54.7	129	88	51.7
Satna	136	97	50.1	150	114	47.4	154	120	46.4
Sehore	129	88	51.8	114	72	54.9	128	87	52
Seoni	98	55	58.5	99	56	58.3	100	58	58
Shahdol	114	71	55	106	63	56.8	118	76	54.1
Umaria				Included in Shahdol					
Shajapur	108	66	56.2	102	59	57.7	112	70	55.3
Shivpuri	149	113	47.5	180	154	41.4	173	145	42.8
Sidhi	104	61	57.1	107	64	56.5	109	66	56
Tikamgarh	112	70	55.4	154	119	46.5	137	98	50
Ujjain	92	49	60	107	64	56.6	111	69	55.6
Vidisha	119	77	53.9	131	91	51.3	136	97	50.2
W. Nimar (Khargone)	100	57	58.1	108	66	56.2	108	66	56.2
Barwani				Included in West Nimar					

Source : Census of India, 1981, 1991, F Series, Madhya Pradesh, Sanket-MPHDRO

*These estimates are provisionally calculated by the MPHDRO office based on Fertility Tables of 1991 Census.

HE 2: LIFE EXPECTANCY AND MORTALITY RATES

District	Rural Male : 1981-91 (**)			Rural Female : 1981-91 (**)			Urban : 1981-91 (**)		
	Infant Mortality Rate (per 1000 live birth	Child Mortality-ages 1-5 (per 1000 live births)	Life Expectancy (in years at birth)	Infant Mortality Rate (per 1000 live births)	Child Mortality-ages 1-5 (per 1000 live births)	Life Expectancy (in years at birth)	Infant Mortality Rate (per 1000 live births)	Child Mortality-ages 1-5 (per 1000 live births)	Life Expectancy (in years at birth)
Balaghat	113	71	55.1	114	72	54.9	66	28	65.9
Betul	136	96	50.3	138	100	49.7	84	43	61.6
Bhind	88	46	60.7	130	89	51.5	74	34	64.1
Bhopal*	138	99	49.9	118	76	54.1	54	20	68.9
Chhatarpur	141	103	49.2	171	142	43.2	119	78	53.7
Chhindwara	102	59	57.6	116	74	54.6	74	34	64
Damoh	133	93	50.9	128	87	52	72	33	64.5
Datia	114	71	55	136	97	50.1	79	39	62.8
Dewas	99	56	58.3	108	65	56.3	54	20	69
Dhar	85	43	61.5	94	51	59.5	51	18	69.8
E. Nimar (Khandwa)	113	71	55.1	112	70	55.4	56	21	68.5
Guna	120	78	53.7	146	109	48.2	115	73	54.7
Gwalior	88	46	60.8	106	63	56.8	48	17	70.4
Hoshangabad	111	69	55.6	127	86	52.1	64	27	66.4
Harda				Included in Hoshangabad					
Indore	86	44	61.3	99	57	58.2	64	27	66.5
Jabalpur	137	98	50.1	120	79	53.6	51	18	69.8
Katni				Included in Jabalpur					
Jhabua	115	73	54.6	147	111	47.9	114	72	54.9
Mandla	91	49	60.1	85	43	61.5	79	38	62.9
Dindori				Included in Mandla					
Mandsaur	110	67	55.8	111	69	55.5	81	40	62.5
Neemuch				Included in Mandsaur					
Morena	94	51	59.4	121	79	53.5	71	32	64.8
Sheopur				Included in Morena					
Narsimhapur	105	63	56.8	122	81	53.2	79	39	62.8
Panna	130	89	51.5	148	111	47.8	80	39	62.8
Raisen	134	95	50.6	126	85	52.4	87	45	61.1
Rajgarh	122	80	53.2	137	98	50.1	91	49	60.1
Ratlam	123	81	53.1	119	77	53.8	48	16	70.5
Rewa	126	85	52.4	142	104	48.9	91	49	60
Sagar	129	89	51.6	128	88	51.8	75	35	63.8
Satna	147	110	47.9	162	130	44.9	90	48	60.2
Sehore	133	94	50.8	122	80	53.3	90	48	60.3
Seoni	100	57	58.2	101	59	57.7	67	29	65.8
Shahdol	122	80	53.2	114	71	55	73	33	64.2
Umaria				Included in Shahdol					
Shajapur	117	75	54.2	107	65	56.4	66	28	66
Shivpuri	154	119	46.5	190	170	39.4	106	64	56.6
Sidhi	107	64	56.5	111	69	55.5	49	17	70.4
Tikamgarh	115	73	54.7	160	128	45.2	106	63	56.7
Ujjain	102	59	57.7	121	80	50	79	38	63
Vidisha	131	91	51.3	141	104	49.1	69	30	65.2
W. Nimar (Khargone)	105	62	57	112	69	55.5	77	36	63.4
Barwani				Included in West Nimar					

Source : Census of India, 1981, 1991, F Series, Madhya Pradesh, Sanket-MPHDRO

**These estimates are provisionally calculated by the MPHDRO office based on Fertility Tables of 1991 Census.

HE 2: LIFE EXPECTANCY AND MORTALITY RATES

District	Urban Male : 1981-91 (**)			Urban Female : 1981-91 (**)		
	Infant Mortality Rate (per 1000 live birth	Child Mortality- ages 1-5 (per 1000 live births)	Life Expectancy (in years at birth)	Infant Mortality Rate (per 1000 live births)	Child Mortality- ages 1-5 (per 1000 live births)	Life Expectancy (in years at birth)
Balaghat	64	27	66.5	70	31	65.1
Betul	87	45	61.1	83	41	62
Bhind	59	23	67.6	91	48	60.2
Bhopal*	53	20	69.1	54	20	69
Chhatarpur	108	66	56.2	129	88	51.8
Chhindwara	na	na	na	79	38	62.8
Damoh	71	32	64.7	73	33	64.3
Datia	74	34	64	88	46	60.8
Dewas	43	14	71.9	65	27	66.3
Dhar	60	24	67.5	42	13	72.1
E. Nimar (Khandwa)	60	24	67.6	52	19	69.5
Guna	103	60	75.5	128	87	52
Gwalior	50	17	70	47	16	70.9
Hoshangabad	63	26	66.7	66	28	66
Harda			Included in Hoshangabad			
Indore	55	20	68.8	73	33	64.4
Jabalpur	52	19	69.4	49	17	70.3
Katni			Included in Jabalpur			
Jhabua	109	67	56	119	77	53.9
Mandla	62	25	66.9	94	52	56.3
Dindori			Included in Mandla			
Mandsaur	78	37	63.2	84	42	61.8
Neemuch			Included in Mandsaur			
Morena	66	28	65.9	76	35	63.7
Sheopur			Included in Morena			
Narsimhapur	63	26	66.8	96	53	59
Panna	77	37	63.3	83	42	61.9
Raisen	86	44	61.2	87	45	61.1
Rajgarh	82	40	62.3	102	59	57.7
Ratlam	60	24	67.5	36	10	73.8
Rewa	80	39	62.7	104	62	57.1
Sagar	80	39	62.7	70	31	65
Satna	83	41	62	98	55	58.6
Sehore	99	56	55.4	81	40	62.5
Seoni	84	43	61.7	52	18	69.6
Shahdol	74	34	64	72	32	64.5
Umaria			Included in Shahdol			
Shajapur	57	21	68.3	75	35	63.8
Shivpuri	108	65	56.3	105	62	57
Sidhi	50	17	70.1	47	16	70.7
Tikamgarh	94	51	59.5	120	78	53.7
Ujjain	74	34	64.2	84	42	61.8
Vidisha	65	27	66.2	75	35	63.8
W. Nimar (Khargone)	60	24	67.4	92	50	59.8
Barwani			Included in West Nimar			

Source : Census of India, 1981, 1991, F Series, Madhya Pradesh, Sanket-MPHDRO

**These estimates are provisionally calculated by the MPHDRO office based on Fertility Tables of 1991 Census.

Table HE 3 presents the Key Health Indicators like percentage of girls marrying below 18 years of age, Couple Protection Rate (CPR), Unmet needs, percentage pregnant women with ANC, percentage pregnant women with full ANC, percentage institutional deliveries and percentage safe deliveries as found out from the district level household survey carried out as part of Reproductive Child and Health Project by the Government of India. Data for percentage children immunised, percentage safe deliveries and percentage couple protection rate are also presented from other sources.

Percentage children immunised

Percentage children immunised is obtained by dividing the number of children fully immunised by the total number of children in the age group of 12-23 months and multiplying the quotient by 100.

Percentage safe deliveries

Percentage safe deliveries is calculated by dividing the number of deliveries under proper hygienic conditions under the supervision of trained health professionals by the total number of deliveries and multiplying the quotient by 100.

Percentage couple protection rate

Percentage couple protection rate is obtained by dividing the number of couple adopting family planning techniques by the total number of eligible couple and multiplying the quotient by 100.

Percentage of girls marrying below 18 years of age

It is calculated by dividing the number of girls married below the age of 18 years, the legal age for marriage of girls by the total population of girls upto 18 years of age and multiplying the quotient by 100.

	Year	Madhya Pradesh	India
% Fully Immunised Children aged 12-23 months	1998-99	22.4	42.0
% Couple Protection Rate	1998-99	48.59	48.2
% Births Delivered in Medical institutions	1998-99	33.6	20.4

Source: NFHS I & 2

Percentage pregnant women with Anti Natal Care (ANC)

This is obtained by dividing the percentage of pregnant women who received at least some of the ANC services divided by the total number of pregnant women in the same period and multiplying the quotient by 100. The complete ANC package consisting of 3 ANC checkups by a visiting doctor or a health professional in a medical facility, or receiving a home visit form a health worker or both, intake of required dose of IFA tablets and 2 tetanus toxide injections.

Percentage pregnant women with complete Anti Natal Care (ANC)

This is obtained by dividing the percentage of pregnant women who received the full package of ANC services divided by the total number of pregnant women in the same period and multiplying the quotient by 100. The complete ANC package consisting of 3 ANC checkups by a visiting doctor or a health professional in a medical facility, or receiving a home visit form a health worker or both, intake of required dose of IFA tablets and 2 tetanus toxide injections.

Percentage Institutional Deliveries

Percentage Institutional Deliveries is calculated by dividing the total number of births that took place in health facilities to the total number of births in that same period and multiplying the quotient by 100.

HE 3: SELECT HEALTH INDICATORS

District	Children Immunised % 1998/99	Safe Deliveries % (Skilled Attention) 1998/99	Sterilisation	Couple Protection Rate (CPR)-2000			
				IUD	Oral Pills	Condoms	Total
	A	B	C	D	E	F	G
Balaghat	90.4	29.4	33.40	3.50	2.32	2.29	41.52
Barwani	31.8	34.5	36.19	6.14	3.00	4.38	49.71
Betul	78.9	34.2	32.84	6.80	5.63	7.94	53.21
Bhind	53.8	18.9	22.00	16.01	10.03	13.34	61.39
Bhopal	78.5	69.7	24.68	5.41	3.54	5.06	38.69
Chhatarpur	29.5	24.4	21.20	11.62	5.07	7.10	44.99
Chhindwara	41.4	43.3	37.91	8.43	3.61	4.90	54.85
Damoh	27.2	29.1	31.97	10.55	4.16	4.15	50.82
Datia	35.1	32.9	24.34	9.98	3.62	5.55	43.50
Dewas	50.0	99.9	34.67	7.52	3.78	5.42	51.38
Dhar	36.5	35.7	34.57	7.99	4.81	5.59	52.96
Dindori	77.1	17.6	44.86	6.09	3.26	2.58	56.79
East Nimar (Khandwa)	56.7	42.8	32.45	5.37	3.01	4.92	45.75
Guna	30.7	36.3	24.88	9.22	3.84	5.61	43.55
Gwalior	52.6	61.8	32.90	10.10	6.85	12.12	61.97
Harda	71.0	42.6	30.78	8.73	4.15	6.63	50.30
Hoshangabad	71.0	42.6	30.26	9.36	4.66	8.70	52.98
Indore	68.9	72.0	36.21	13.41	5.58	6.57	61.78
Jabalpur	50.9	44.4	39.67	14.65	4.48	6.61	65.41
Jhabua	17.4	22.4	21.98	10.19	5.47	6.16	43.80
Katni	50.9	44.4	37.03	11.60	9.87	7.49	65.99
Mandla	77.1	17.6	31.92	4.68	3.42	2.51	42.53
Mandsaur	40.4	46.4	28.21	8.84	3.49	7.74	48.28
Morena	18.6	33.0	22.45	15.38	7.23	8.89	53.96
Narsimhapur	68.7	27.8	39.45	6.49	2.37	5.24	53.55
Neemuch	40.4	46.4	28.09	10.20	3.55	9.50	51.34
Panna	10.5	13.5	20.11	9.58	4.09	9.08	42.86
Raisen	70.6	29.4	24.43	8.74	9.38	6.74	49.28
Rajgarh	28.0	34.2	22.51	12.22	5.18	6.09	46.00
Ratlam	48.8	60.4	29.78	8.08	3.38	4.69	45.93
Rewa	65.0	20.8	18.89	12.16	4.43	3.88	39.36
Sagar	32.4	43.0	24.71	6.60	3.59	2.89	37.79
Satna	35.9	16.9	23.40	8.14	5.48	4.35	41.38
Sehore	26.8	38.5	29.04	11.54	5.31	11.34	57.23
Seoni	69.0	42.6	39.67	7.94	3.56	4.65	55.81
Shahdol	39.7	51.7	25.45	8.86	4.26	5.70	44.27
Shajapur	24.8	39.7	26.45	11.70	3.49	6.99	48.63
Sheopur	18.6	33.0	21.71	14.25	11.95	7.58	55.49
Shivpuri	63.2	47.3	22.05	8.29	3.38	5.17	38.89
Sidhi	40.8	10.4	16.75	7.32	3.27	6.20	33.54
Tikamgarh	17.3	29.5	28.86	10.02	3.85	5.11	47.83
Ujjain	57.6	68.2	32.26	6.15	4.26	5.80	48.46
Umaria	39.7	51.7	24.13	9.65	4.37	5.69	43.84
Vidisha	44.0	27.8	20.62	5.83	7.05	10.77	44.27
West Nimar (Khargone)	31.8	34.5	36.57	7.62	1.66	3.97	49.82
Madhya Pradesh			**28.57**	**9.21**	**4.63**	**6.18**	**48.59**

Source : National Commission on Population 2001 for columns A and B, Directorate of Health, GoMP for columns C to G and Rapid Household Survey in Different Districts-1998 for columns H to P

HE 3: SELECT HEALTH INDICATORS

District	Percentage Girls Marrying below 18 Years-1998	Percentage Births order 3 and above-1998	CPR (Any)-1998	Unmet Need-1998	Percentage Pregnant Women with ANC-1998	Percentage Pregnant Women with Full ANC-1998	Percentage Institutional Delivery-1998	Percentage Safe Delivery-1998	Percentage Children with Complete Immunisation-1998
	H	I	J	K	L	M	N	O	P
Balaghat	34.2	45.3	54.5	21	70.3	42.3	12.3	29.4	90.4
Betul	27.6	48.9	61.8	20.9	69.9	53.4	25.2	34.2	78.9
Bhind	61.2	50.6	43.7	16.8	48.3	4.8	14.1	18.9	53.8
Bhopal	34.6	47.3	63.5	23.6	77.6	49.1	52.5	69.7	78.5
Chhatarpur	73	51.8	32.8	35	53.8	15.2	19.1	24.4	29.5
Chhindwara	31.4	52.6	51.7	15.1	48.1	16.0	18.9	43.3	41.4
Damoh	54.7	45.9	41.6	24.5	49	12.2	8.5	29.1	27.2
Datia	49.0	50.8	40.2	21.2	29.9	6.5	23.7	32.9	35.1
Dewas	53.5	44	58.2	23.9	55.1	15.7	35.7	99.9	50
Dhar	56.5	63.3	45.8	16.6	56.0	15.5	17.5	35.7	36.5
East Nimar (Khandwa)	42.7	45.6	51.5	13.0	69.9	26.8	21.9	42.8	56.7
Guna	69.6	49.4	39	32.8	57.6	13.1	29	36.3	30.7
Gwalior	35.8	43.1	51.7	17.9	35.6	2.1	48.2	61.8	52.6
Hoshangabad	48.3	41.3	48.6	29.3	64.3	38.5	32.6	42.6	71
Harda	Included in Hoshangabad								
Indore	42.6	37.4	67.4	11.1	79.1	35.0	62.3	72.0	68.9
Jabalpur	41.3	40.2	48.8	32.1	56.9	26.4	31.6	44.4	50.9
Katni	Included in Jabalpur								
Jhabua	58.4	63	26.8	22.1	40.2	12.2	18	22.4	17.4
Mandla	39.1	46.5	58.2	30.4	55.3	28.8	10.7	17.6	77.1
Dindori	Included in Mandla								
Mandsaur	59.7	42.4	48.7	17.1	65.3	17.2	25.6	46.4	40.4
Neemuch	Included in Mandsaur								
Morena	73.9	49	48.6	38.6	60	15.6	26.4	33	18.6
Sheopur	Included in Morena								
Narsinghpur	49.3	46.9	54.1	12.1	66.6	20	17.8	27.8	68.7
Panna	58	49.2	26.8	44	36.8	9.2	10.1	13.5	10.7
Raisen	47.6	53.7	52.5	12.4	52.1	27.3	15.9	29.4	70.6
Rajgarh	9.4	46.8	34.8	18.8	37.8	12.6	8.3	25.7	63.1
Ratlam	48.2	43.1	53.1	24.9	65.3	23.9	30	60.4	48.8
Rewa	60.4	56.1	38.8	26	28.2	3.6	12.9	20.8	65
Sagar	60.4	44.9	44.1	23.4	68.4	25.2	24.4	43	32.4
Satna	60	52.2	35.1	22.3	21.7	4.3	13.3	16.9	35.9
Sehore	50.4	49.2	45.4	25.1	51.4	14	23.1	51.7	39.7
Seoni	36.6	48.3	50.8	19.2	48.9	9.7	13.9	42.6	69
Shahdol	69	47.6	39.7	29.7	37.6	11.1	11.7	39.7	24.8
Umaria	Included in Shahdol								
Shajapur	83.7	47.8	45.4	53	50.7	12.6	29.2	47.3	63.2
Shivpuri	68.3	52.8	34.1	21.1	44.7	9.5	23.1	39.3	38.8
Sidhi	68.8	59.2	29.5	25.1	17	2.5	7.3	10.4	40.8
Tikamgarh	70	49.6	45.5	12.7	23	2.5	21.5	29.5	17.3
Ujjain	42.4	40.5	58.6	25.1	65.3	28	41.1	68.2	57.6
Vidisha	60	51.1	40.9	21.6	61.9	11.8	19.6	27.8	44
West Nimar (Khargone)	42.7	51.2	48.9	21.8	61.3	18.8	19.4	34.5	31.8
Barwani	Included in West Nimar								

Source : National Commission on Population 2001 for columns A and B, Directorate of Health, GoMP for columns C to G and Rapid Household Survey in Different Districts-1998 for columns H to P

References

ADB (Asian Development Bank). 1999. *Support for the Government of Madhya Pradesh Public Finance Reform and Institutional Strengthening. Final Report, TA No 2943-IND.* Tata Consultancy Services, India and Ernst & Young, Canada.

Census of India. 1991. *Madhya Pradesh District Profile 1991.*Census of India. Registrar General and Census Commissioner. New Delhi, India.

_____. 1991. *State Profile 1991.*Census of India. Registrar General and Census Commissioner. New Delhi, India

_____. 1991. *Census of India 1991 Final Figure Primary Census Abstract-Madhya Pradesh.* Director of Census Operations, Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2001. *Provisional Population Totals, Supplement Paper-1 of 2001, Series 24, Madhya Pradesh.* Census of India, 2001, Director of Census Operations. Bhopal, Madhya Pradesh.

_____. 2001. *Provisional Population Totals, Supplement Paper-2 of 2001, Series 24, Madhya Pradesh.* Census of India, 2001, Director of Census Operations. Bhopal, Madhya Pradesh.

GoI (Government of India). 1997. *Economic Survey 1996-97.* Ministry of Economics Division, Government of India. New Delhi, India.

_____. 1998. *Health Information of India 1995-96.* Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India. New Delhi, India.

_____. 2000. *Economic Survey 1999-2000.* Ministry of Economics Division, Government of India. New Delhi, India.

_____. 2000. *Health Information of India 1997-1998.* Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India. New Delhi, India.

_____. 2000. *Mid Term Appraisal of Ninth Five Year Plan (1997-2002).* Planning Commission, Government of India. New Delhi, India.

_____. 2001. *Indian Economic Survey 2000-2001.* Ministry of Economics Division, Government of India. New Delhi, India.

_____. 2002. *Indian Economic Survey 2001-2002.* Ministry of Economics Division, Government of India. New Delhi, India.

_____. 2002. *National Human Development Report 2001.* Planning Commission, Government of India. New Delhi, India.

GoMP (Government of Madhya Pradesh). 1989. *Agricultural Statistics 1988-89.* Directorate of Agriculture, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 1995. *Basic Agricultural Statistics Madhya Pradesh 1989-90 to 1993-94.* Commissioner, Land Records and Settlement, Madhya Pradesh, Gwalior. Madhya Pradesh.

_____. 1995. *Madhya Pradesh* ka *Arthik Sarvekshana 1995-96* Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 1996. *Compendium of Power Statistics 1994-95.* Madhya Pradesh Electricity Board. Jabalpur, Madhya Pradesh.

_____. 1996. *Madhya Pradesh ka Arthik Sarvekshana 1995-96.* Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 1996. *Road Statistics 1995.* Government of Madhya Pradesh, Public Works Department. Bhopal, Madhya Pradesh.

_____. 1997. *Block wise Main Development Indicators of Madhya Pradesh 1993-94.* Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 1997. *Compendium of Power Statistics 1994-95.* Madhya Pradesh Electricity Board. Jabalpur, Madhya Pradesh.

_____. 1998. *The Madhya Pradesh Human Development Report 1998.* Directorate of Institutional Finance, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 1999. *Estimates of State Domestic Product of Madhya Pradesh 1980-81 to 1997-98.* Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 1999. *Madhya Pradesh ka Arthik Sarvekshana 1998-99*. Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2000. *Agricultural Statistics 2000*. Directorate of Agriculture, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2000. *Basic Agricultural Statistics Madhya Pradesh 1994-95 to 1998-99*. Commissioner, Land Records and Settlement, Madhya Pradesh, Gwalior. Madhya Pradesh.

_____. 2000. *District wise Ten Years Socio-Economic Development Indicators of Madhya Pradesh 1985-86 to 1994-95*. Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2000. *Estimates of State Domestic Product of Madhya Pradesh 1993-94 to 1998*-Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2000. *Madhya Pradesh ka Arthik Sarvekshana 1999-2000*. Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2001. *Estimates of State Domestic Product of Madhya Pradesh 1993-94 to 1999-2000.*Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2001. *Policy Thrust for Economic Development of Madhya Pradesh.* Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

_____. 2002. *Madhya Pradesh ka Arthik Sarvekshana 2001-2002*. Directorate of Economics and Statistics, Government of Madhya Pradesh. Bhopal, Madhya Pradesh.

Gopalakrishnan, R. and Agnani, Manohar.1998. *Swastha Jeevan Sewa Guarantee Yojna-Moving Towards Decentralised Management of Health Care in Madhya Pradesh.* Occasional Paper No-8. Rajiv Gandhi Mission. Bhopal, Madhya Pradesh.

IIPS (International Institute for Population Sciences) and ORC Marco. 2001. *National Family Health Survey (NFHS-2), India, 1998-99: Madhya Pradesh*. Mumbai, India.

NABARD (National Bank for Agriculture and Rural Development). 2001. *Madhya Pradesh State Focus Paper.* National Bank for Agriculture and Rural Development. Bhopal, Madhya Pradesh

NNMB (National Nutrition Monitoring Bureau). 2000. *Nutritional Status of Tribal Report on First Repeat Survey.*

NSSO (National Sample Survey Organisation). 1983. Sarvekshana Report on the Third Quinquennial Survey on Employment and Unemployment: NSS 38th Round (January-December 1983). Department of Statistics, Ministry of Planning, Government of India. New Delhi, India.

_____. 1998. *Sarvekshana Results of the Fourth Quinquennial Survey on Employment and Unemployment (All India): NSS 43rd Round (July 1987- June 1988).* Department of Statistics, Ministry of Planning, Government of India.

_____. 1998. *Morbadity and Treatment of Ailment. 52nd Issue July 1995-June 1996* Ministry of Statistics and Programme Implementation, Government of India. New Delhi, India.

_____. 1999. *Sarvekshana: Vol.XXII, No.3, 78th Issue January-March, 1999*. Ministry of Statistics and Programme Implementation, Government of India. New Delhi, India.

_____. 2000. *Sarvekshana: Vol. XXIII, No.3, 82nd Issue (Special) January-March 2000.* Ministry of Statistics and Programme Implementation, Government of India. New Delhi, India.

_____. 2001. *Employment and Unemployment Situation in India 1999-2000 (Part-I and II): NSS 55th Round (July 1999-June 2000)*. Ministry of Statistics and Programme Implementation, Government of India.

PRC (Population Research Centre), Directorate of Economics and Statistics, Bhopal and IIPS (International Institute for Population Sciences). 1995. *National Family Health Survey (MCH and Family Planning), Madhya Pradesh 1992*. Bombay, India.

RGI (Registrar General of India). 1998. *Sample Registration System, Statistical Report 1996.* New Delhi, India.

_____. 1999. *Compendium of Fertility and Mortality Indicators 1971-1997.* New Delhi, India.

Sharma, Amita. 2000. *Idea of Education*. Occasional Paper No.-7. Rajiv Gandhi Mission. Bhopal, India.

UNDP (United Nations Development Programme). 1995. *Human Development Report 1995*. New York: Oxford University Press.

_____. 1996. *Human Development Report 1996*. New York: Oxford University Press.

_____. 1997. *India: The Road to Human Development, India, Development Firm, Peris, 23-25 June 1997*. UNDP. New Delhi, India.

_____. 1999. *Human Development Report 1999*. New York: Oxford University Press.

UNFPA (United Nations Population Fund). 1997. *India Towards Population and Development Goals, 1997*. United National System in India, Oxford University Press.

_____. 2000. *Rapid Assessment: Quality of Reproductive Health Services in the UNFPA Supported Integrated and Population Development Projects.*

VHAI (Voluntary Health Association of India). 1994. *A Report on National Consultation on Tuberculosis.*

Vinod, James, and Sunil K. Sinha. 1995. *Indirect Estimates of Fertility and Mortality at the District Level, 1981. Occasional Paper 4 of 1994*. New Delhi: Office of the Registrar General, India.

World Bank. 1997. *India Achievement and Challenges in Reducing Poverty.* A World Bank Country Study.