

Human Development Report 2005



KERALA

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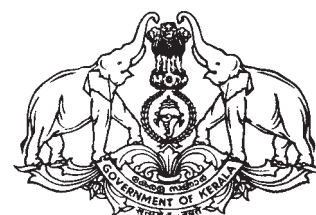
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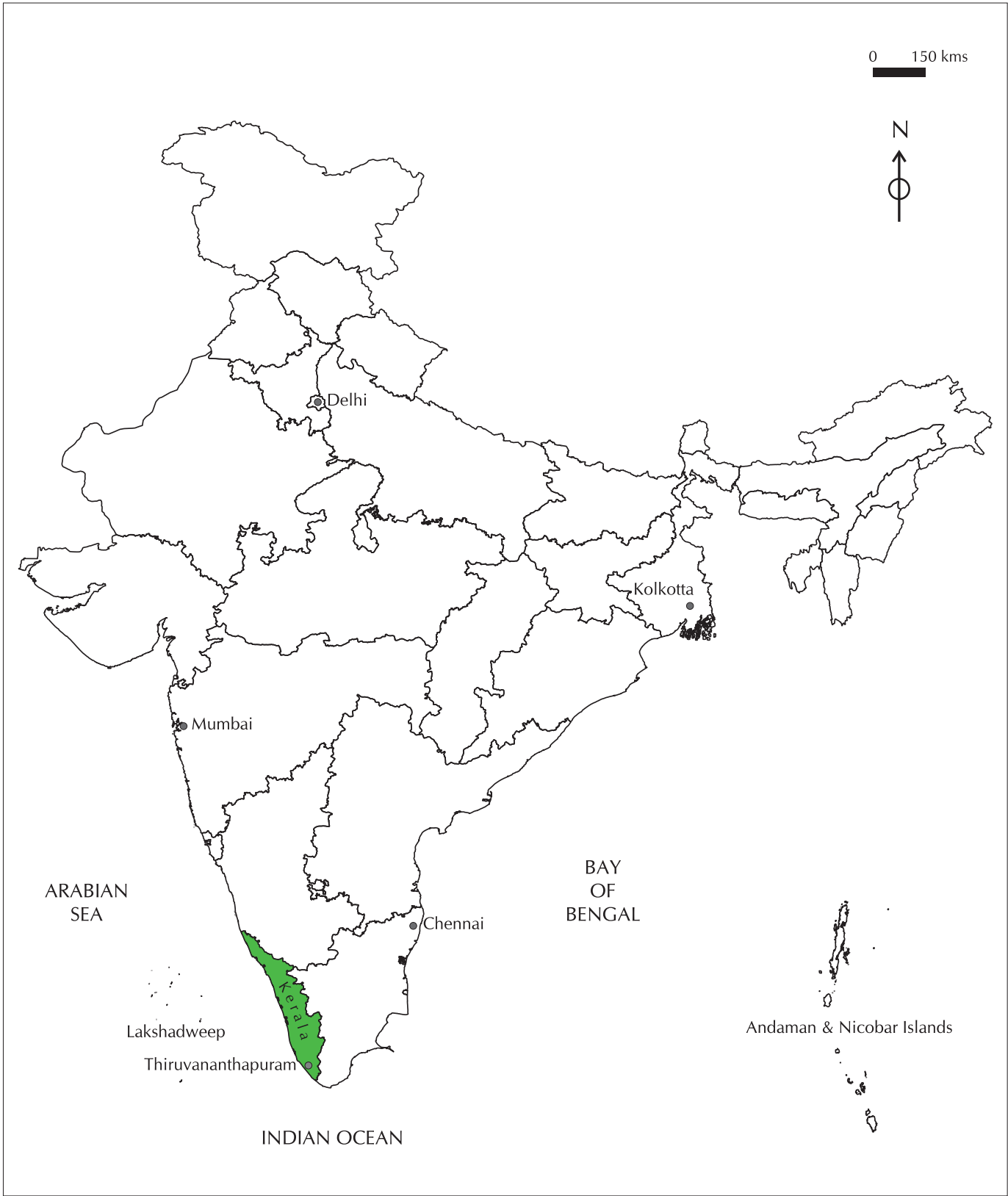
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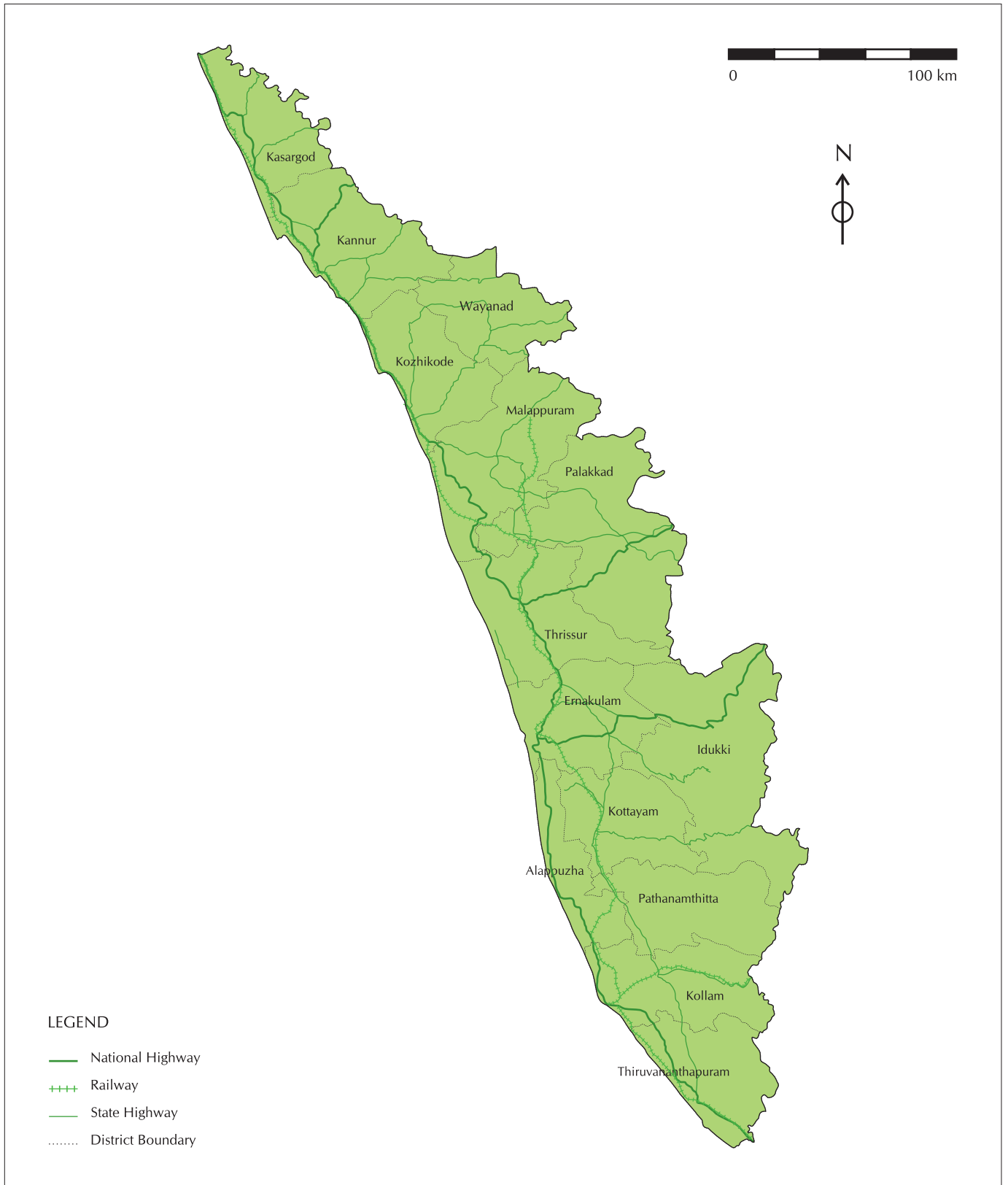
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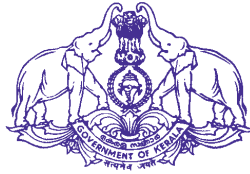


Location of Kerala



Administrative Map of Kerala Showing Districts





OOMMEN CHANDY
CHIEF MINISTER
KERALA

Foreword

Kerala has achieved international levels of human development as a result of decades of assiduous adherence to a development credo based on social justice, economic equity and people-centered public policy. Over the years governments have focused on not only creation of opportunities but also in ensuring fair access to such opportunities by all groups of people irrespective of social category, geographical location, economic background or political affiliation.

Hindsight shows that the State was wise in following the path of human and social development by allocating resources to these areas. For some time doubts were raised whether human development would automatically lead to economic development. I am happy to note that this first Human Development Report of Kerala removes all such scepticism. After all, human development would lead to sustainable economic development even though there could be a lag.

This HDR brings out the second-generation issues relating to different aspects of human development, which the State has to address seriously and concertedly. The State has to face the challenges of providing holistic health care, employment oriented higher education, high quality social security, continued food and nutrition security – with an even stronger pro-poor bias. Also gender justice and inclusion of outliers need to be given special priority.

The Report gives rise to a lot of optimism regarding the “high road” to development emerging out of the virtuous cycle set off by the emphasis on human development. Now that the strong human development-based foundation for sustainable economic development has been laid, Government policy has to address the task of job creation following the sacred principles of equity and social justice combined with a Gandhian passion for ‘Antyodaya’. This is the agenda for the XIth Five Year Plan.

OOMMEN CHANDY

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Planning Commission



Message

On behalf of the Planning Commission, Government of India and the United Nations Development Programme, we congratulate the Government of Kerala for preparing the first Human Development Report for the State.

The human development approach is not new to the State of Kerala. Though the term is extensively being used since 1990s, the focus of policies of various administrators in the region since early 19th century embodied the philosophical underpinnings of the human development approach. In a sense, Kerala demonstrated how human development can be translated into action much before the concept itself was articulated.

The result of the State following a human development oriented development trajectory are evident to all. Any discourse on human development oriented policies and planning in the Indian context and their impact is incomplete without mentioning the achievements of the State in ensuring a better life for its people.

We are confident that the insights provided by the Kerala Human Development Report with regard to its fascinating development journey, the second generation development challenges that it is currently facing and the way ahead would guide other States.

We once again felicitate the Government of Kerala for the preparation of its Human Development Report.

R. Bandyopadhyay
Adviser (RD/SP-S), Planning Commission
Government of India

Maxine Olson
UNDP Resident Representative &
UN Resident Coordinator



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Message

I have immense pleasure that the first Human Development Report for Kerala is being released.

Kerala's record in the field of human development continues to be remarkable not only by national standards but also by standards of most developing countries. "Kerala model" has been referred to as a paradox of social development and economic backwardness. It is often also argued that the "Kerala model" would become unsustainable, given the mounting fiscal problems of the State. What the present Report finds, however, is that the progress in social development continues unabated and marches ahead with Kerala retaining its lead in several spheres. Contrary to the experience prior to the late 1980s, economic growth has also been an impressive one in Kerala, thus rejecting the description of high social development with low economic growth.

While Kerala's record in reducing and even eliminating gender disparity in many socio-economic indicators is commendable, the problem of gender justice continues to remain intimately related to several aspects of development. As discussed in this Report, the problem is observed not only in the nature and extent of unemployment and the labour market but also in property rights, participation in public affairs and domestic life.

For sustaining economic growth, the Report has given a road map and chalked out a strategy for a broad-based, growth, based on its past achievements of high level human development. The Report has emphasised that Kerala needs to follow the 'high road' to development, which calls for a long time-horizon in investment, involves high levels of skills and knowledge, high technological base, modern forms of organisation and professional management and governance.

In order to meet the challenges and capitalise on the opportunities, all sectors of the society need to reflect on and discuss the issues and recommendations proposed in the Report. I am sure that policy makers, researchers, NGOs and members from civil society organisations would respond to the issues highlighted and the recommendations put forward in the Report.

C.V. PADMARAJAN

Acknowledgements

Kerala stands unique among Indian States with a consistently higher level of human development comparable with that of many advanced countries but with a much lower per capita income. Kerala ranked first among major States in India in the Human Development Index (HDI) at the three time points of 1981, 1991 and 2001, but its per capita income lagged behind the all-India average till recently. Implied in this phenomenon is a higher rate of translation efficiency in terms of public action and 'giving higher priority and precedence to the development of these services (such as education and health)' in response to organised public demand.

This was highlighted by a pioneering study undertaken by the Centre for Development Studies (CDS), under the leadership of Professor K. N. Raj, and sponsored by the Committee for Development Planning of the United Nations (UN) in the mid-1970s. The clear suggestion made by this CDS-UN (1975) study 'that there is much to be said in favour of a pattern of development, which gives attention to these minimum essentials of life, particularly if these are interpreted to include items such as educational and health services which help to build up human capital and make important qualitative differences to the whole process of development,' led to raising this development experience to the status of a 'model'. The model signifies that it is possible 'in less industrialised and urbanised societies' to attain the third stage of demographic transition by means of such social development without the simultaneous 'rise in per capita income, urbanisation and industrialisation', unlike in the advanced countries. The widely acclaimed CDS-UN study has occupied an important place in the chain of intellectual events, culminating in a paradigm shift in development thinking. We would like to acknowledge the seminal contribution this study has made to rethinking development and its role in stimulating further research in the CDS on the various dimensions of Kerala's growth.

It was at the invitation of the Kerala State Planning Board that CDS agreed to prepare the Human Development Report for Kerala. This Report, as in the case of other State HDRs, is sponsored jointly by the Indian Planning Commission and the UNDP Office in New Delhi. The Report was prepared by a CDS team led by K. P. Kannan. The team included K. Navaneetham, N. Vijayamohanan Pillai, Mridul Eapen, Achin Chakraborty, K. Puspangadan, Praveena Kodoth and M. Suresh Babu (till May 2004). Achin Chakraborty coordinated the team work initially (till March 2004), and when he had to proceed on long leave, he was succeeded by K. Navaneetham. Professor K. N. Raj was always there as the beacon of intellectual inspiration and direction. The background papers originated with the core team and underwent several rounds of discussion towards inputting and structuring the Report. The core team also had the benefit of banking on constant intellectual interactions with the CDS faculty as well as their written inputs. Mention should be made of the contributions of M. Kabir, P. R. Gopinathan Nair, John Kurien, K. Narayanan Nair, K. T. Rammohan, D. Narayana, P. Mohanan Pillai, N. Shanta, and Ravi Raman. A number of student-scholars – Ranjan Kumar Dash, K. S. Hari, Sunny Jose, M. Parameswaran, Varinder Jain and M. S. Harilal – also helped in the preparation of the Report.

With a view to guiding the core team in the preparation of the Report, a steering committee (SC) was constituted by the Government of Kerala with the following members: Mr. V. Ramachandran, former Vice-Chairman, State Planning Board (as Chairman of the SC); Mr. S. M. Vijayanand, former Secretary, State Planning Board; Dr. K. M. Abraham, Secretary, Modernisation of Government Programme; Mr. T. K. Jose, Executive Director, *Kudumbashree*; Mr. Niyati, Chief, Social Services Division, State Planning Board; Mr. M. R. Balakrishnan, Director of Economics and Statistics; Dr. P. P. Balan, Director, Kerala Institute for Local Administration; and Dr. K. P. Kannan, former Director, CDS.

The preparation of the Report was supported by Dr. Rohini Nayyar, Adviser, Rural Development, Planning Commission.

The UNDP India Resident Representative, Dr. Maxine Olson, was a constant source of encouragement for preparing the Report. Dr. Seeta Prabhu, Head, Human Development Resource Centre, UNDP, India was in continuous contact with us, providing critical comments on various drafts.

Dr. Suraj Kumar, Mr. Srinivasan and Ms. Ritu Mathur of the UNDP office also provided support at various stages in the preparation of the Report.

Two consultative workshops were held with steering committee members, NGOs, UNDP officials, officials from Government departments, invited experts, honorary fellows of CDS and the CDS faculty. The first workshop discussed the conceptual framework of the Report. Mr. S. M. Vijayanand and Mr. G. Vijayaraghavan made presentations on 'Decentralisation and Human Development' and 'Changing Labour Market and Emerging Labour Market Opportunities', respectively. We are grateful to both of them. The second workshop discussed the draft chapters prepared by the CDS team and received encouraging comments. Special mention in this respect must be made of Professor S. Subramanian, Professor Vinod Vyasulu, Professor M. N. V. Nair, Mr. G. Vijayaraghavan, and Dr. V. Raman Kutty.

A dissemination workshop was held in August 2005, with a much wider participation of Government officials, NGOs, college/university teachers, local Government functionaries and researchers. Dr. Seeta Prabhu was kind enough to take part in the workshop. We would like to thank the theme presenters, discussants, rapporteurs and all those who made useful comments on the Report. Special mention must be made of the Vice-Chairman of the State Planning Board, Mr. C. V. Padmarajan, other Planning Board members, Dr. Mohan Gopal, Mr C. P. John and Mr. G. Vijayaraghavan, for taking part in the workshop as also of the interventions by Dr. Pulapre Balakrishnan, Dr. K. K. George, Dr. C. R. Soman and Ms. Vanitha Mukherjee.

Mr. V. Ramachandran, as chairman of the steering committee, evinced a keen interest in perfecting the Report; his concern for clarity in reflection on and inclusion of facts in a historical perspective has added immense value to the Report.

Professor S. Subramanian was a lively source of critical comments and helped towards re-texturing the Report in its logical congruence of themes. Professor Ashwani Saith provided useful comments and suggestions in his interactions with the KHDR team, when he visited the CDS in 2004. Professor R. V. G. Menon prepared the background paper on 'Issues in Access and Quality in Higher Level Technical Education'. Professor K. K. Subrahmanian, in his characteristic way, was a keen critic of the Report.

It should be noted that the CDS-UN (1975) study clearly identified educated unemployment as one of the most serious problems Kerala was facing and discussed at length the problem of growing unemployment in a condition of high social development. The Report has benefited from first-hand information on issues of educated unemployment in Kerala, collected through a primary survey conducted in the three districts of Thiruvananthapuram, Ernakulam and Kannur. The survey, conceived and designed by the CDS team, was carried out by the Kerala Statistical Institute (KSI), Thiruvananthapuram.

The Kerala physical map and thematic maps were prepared by Dr. Srikumar Chattopadhyaya of the Centre for Earth Science Studies (CESS), Thiruvananthapuram. Thanks are also due to the Directorate of Public Instruction for providing the latest data on district and class-wise school enrolment in Kerala, as well as to Ms. Aruna Sundararaj, former Secretary, Kerala Information Mission, for providing necessary information on the *Akshaya* model and sharing her views on the prospects of IT-enabled services in Kerala.

The unstinted support and help from the administrative and library staff of CDS, especially from the registrar, Mr. Soman Nair, and Mr. Chidambaram Pillai, librarian-in-charge, and their colleagues, Ms. Usha Devi, Mr. Anil Kumar, Mr. K. Muraleedharan, Ms. S. Rajalakshmy, Mr. Gopakumar, Ms. Shobhana Kannan, Mr. Amir, Mr. Krishnan Kutty, Ms. Girija and Mr. Binu.

I wish to thank Dr. Kannan who proceeded on leave in November 2004 after completing a draft of the Report. After the dissemination workshop held in August 2005, the HDR team has revised the Report considerably on the basis of comments and suggestions received from the participants and discussants. I wish to record my appreciation to the team members for their commendable work in completing the Report.

K. Narayanan Nair
Director
Centre for Development Studies
Thiruvananthapuram
January 2006

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Abbreviations

AICTE	All India Council of Technical Education
ADIC	Alcohol & Drug Information Centre
AMI	Ayurvedic Manufacturing Industry
APS	Annual Power Survey
AVS	Arya Vaidya Sala
BEM	Basel Evangelical Mission
BMI	Body Mass Index
BPL	Below Poverty Line
BPO	Business Process Outsourcing
BRDC	Bekal Resorts Development Corporation
BSNL	Bharat Sanchar Nigam Limited
CAPE	Co-operative Academy of Professional Education
CAW	Crime Against Women
CBR	Crude Birth Rate
CCE	Centre for Continuing Education
CDR	Crude Death Rate
CED	Chronic Energy Deficiency
CEE	Common Entrance Examination
CMM	Capability Maturity Model
CMIE	Centre for Monitoring Indian Economy
CSO	Central Statistical Organisation
CUSAT	Cochin University of Science and Technology
DTPCs	District Tourism Promotion Councils
EG	Economic Growth
FC	Forward Caste
GDI	Gender-related Development Index
GEM	Gender Empowerment Measure
GOI	Government of India
GOK	Government of Kerala
HAP	Health Action by People
HD	Human Development
HDI	Human Development Index
ICOR	Incremental Capital Output Ratio
ICRW	International Centre for Research on Women
ICT	Information and Communication Technology
IHMCT	Institute of Hotel Management and Catering Technology
IHRD	Institute of Human Resources Development
IHRDE	Institute for Human Resources Development in Electronics
IMR	Infant Mortality Rate

INCLEN	International Clinical Epidemiology Network
ISRO	Indian Space Research Organisation
IT	Information Technology
ITCs	Industrial Training Centres
ITI	Industrial Training Institute
JSRs	Juvenile Sex Ratios
KIHMS	Kerala Institute of Hospitality Management Studies
KITTS	Kerala Institute of Tourism and Travel Studies
KPCR	Kumara Pillai Commission Report
KSE	Kerala Secondary Education
KSEB	Kerala State Electricity Board
KSPCB	Kerala State Pollution Control Board
KSRTC	Kerala State Road Transport Corporation
KSSP	Kerala Shasthra Sahitya Parishad
KSSSR	Kerala State Subordinate Service Rules
KTDC	Kerala Tourism Development Corporation
LBW	Low Birth Weight
MHRD	Ministry of Human Resource Development
MPCI	Modified Per Capita Income
MSI	Modified State Income
NAS	National Accounts Statistics
NASSCOM	National Association of Software and Service Companies
NCAER	National Council of Applied Economic Research
NCERT	National Council for Educational Research and Training
NCRB	National Crime Records Bureau
NDP	National Domestic Product
NFHS	National Family Health Survey
NIT	National Institute of Technology
NNMB	National Nutrition Monitoring Bureau
NOC	No Objection Certificate
NRI	Non-Resident Indian
NSDP	Net State Domestic Product
NSSO	National Sample Survey Organisation
NTMIS	National Technical Manpower Information System
NTPC	National Thermal Power Corporation
OBC	Other Backward Class
PDS	Public Distribution System
PISA	Programme for Integrated Student Assessment
PKHL	Pankaja Kasthuri Herbals Limited
RCH	Reproductive and Child Health
SC	Scheduled Castes
SJPS	Sadhu Jana Paripalana <i>Sangham</i>
SNDP	Sree Narayana Dharma Paripalana
SRS	Sample Registration System
SSLC	Secondary School Leaving Certificate
ST	Scheduled Tribes
TEPS	Tenmala Eco-tourism Promotion Society
TEQIP	Technical Education Quality Improvement Programme
TFR	Total Fertility Rate
TRKL	Tourist Resorts Kerala Limited
UNDP	United Nations Development Programme
UPSS	Usual Principal and Subsidiary Status
WPR	Work Participation Rates
WWFB	Workers Welfare Fund Board

Glossary

1 Lakh	100 Thousand
1 Crore	10 Million
<i>Abkari</i>	Manufacturer or dealer of alcoholic beverages
<i>Adivasi</i>	Tribal
<i>Akshaya</i>	Name of the e-literacy programme initiated by the Government of Kerala
<i>Anganwadi</i>	Centre for development of children below 6 years and expectant mothers
<i>Ashraya</i>	Name of the Kerala Government programme to give shelter to the very poor, that is destitute
<i>Ayurveda</i>	Herbal-based indigenous system of medicine in India
<i>Balasabha</i>	Name of the Kerala Government-initiated programme for assembly of children around some activities
<i>Balawadi</i>	Centre for development of children below 6 years set up before the <i>anganwadi</i> scheme came into being
Cent	100 cents = 1 acre
<i>Ezhava</i>	A major backward caste of Kerala
<i>Grama Panchayat</i>	Village Government
<i>Grama Sabha</i>	Village Assembly
<i>Guru</i>	Teacher
<i>Janmie</i>	Landlord
<i>Kanji</i>	Rice gruel
<i>Karimbalan</i>	Scheduled Caste in Kerala
<i>Kattuvalli</i>	Wild plant
<i>Kudumbashree</i>	Name of the Kerala Government's poverty eradication programme, which literally means 'Prosperity of the family'
<i>Laabham market</i>	State-run markets organised to sell goods at lower than market prices to benefit the consumers
<i>Maaveli stores</i>	State-run shops which sell common provisions at lower than market prices, named after the legendary ruler of Kerala who wanted his subjects to be prosperous
<i>Madrassa</i>	Muslim religious school
<i>Mahila Samajam</i>	Organisations for promoting welfare of women
Malayalam	Language spoken in Kerala
Malayalis	People of Kerala
<i>Mapilla</i>	Muslims of North Kerala

<i>Marumakkatayam</i>	Matrilineal family organisation characterised by inheritance through female line
<i>Mavilan</i>	Scheduled Caste in Kerala
<i>Nambudiri</i>	Malayali Brahmin
<i>Nayadi</i>	Scheduled Caste in Kerala
<i>Onam</i>	Most significant festival of Kerala cutting across religions when <i>Maaveli</i> is believed to revisit his land
<i>Panchayati raj</i>	System of local governance with district, block and village as three tiers
<i>Pulaya</i>	A major Scheduled Caste of Kerala
<i>Sabha</i>	Assembly
<i>Sangham</i>	Organisation
<i>Taravad</i>	Joint family house; also refers to the family itself
<i>Toddy</i>	Local alcoholic beverage from coconut
<i>Vaidyasala</i>	Dispensary for ayurvedic medicines
<i>Vetan</i>	Scheduled Caste in Kerala
<i>Vettuvan</i>	Scheduled Caste in Kerala
<i>Vidyashree</i>	State-sponsored programme for promoting IT at school

Introduction

TOWARDS AN APPROACH

1. The Context

Kerala's achievements in terms of some of the basic indicators of human development are well known and have been much commented upon. The life expectancy at birth of over 73 years in Kerala, well beyond what has been attained in the rest of India, compares well with Asian countries like South Korea, Malaysia and China. Importantly, however, these countries, unlike Kerala, were already on a path of economic growth. Kerala's female-to-male ratio, at 1.058, is identical to that of Europe and North America. It is substantially higher than that for China (0.94) or for the rest of India (0.93). Further, Kerala is much ahead of other Indian States in achieving the goal of universalising elementary education. The State ranked first among major Indian States in the Human Development Index (HDI) at the three time points of 1981, 1991 and 2001 (National Human Development Report, 2001, Planning Commission, 2002), but its per capita income lagged much behind the all-India average till recently. Implied in this phenomenon is a higher rate of translation efficiency in terms of public action, and 'giving higher priority and precedence to the development of these services (such as education and health)' in response to organised public demand (CDS-UN 1975).

Such a pattern of development, defined by success in achieving a high quality of life without much success in economic growth,¹ was raised to the status of a 'model' and the widely acclaimed CDS-UN (1975) study occupies an important place in the chain of intellectual events that culminated in a paradigm shift in development thinking. The present Report continues from

¹ In his survey of international development experiences, Sen (1999:45) has mentioned "the Indian State of Kerala" together with Sri Lanka and pre-reform China as characterised by such a development experience.

that base, but primarily deals with the second-generation problems of human development, such as quality.

However, a number of doubts have been raised as to the sustainability of such a 'model'. The significant sources of social development of Kerala were higher Government spending on related infrastructure in the compelling backdrop of welfare policies pursued since the middle of the 19th century and also the huge remittances from non-resident Keralites from other parts of India and abroad, especially from the Gulf countries since the mid-1970s. The feasibility of continued State financing of social services was put under pressure, especially following the fiscal pressure felt across Indian States from the mid-1980s. Similarly, with the prospects of continued Gulf remittances being uncertain, that source also remained unreliable. There was thus a big question mark over the future of human development in the State in the face of a fragile economic base in terms of an insignificant industrial sector.

However, these fears are now receding in the face of what appears to be the new 'virtuous' phase of Kerala's development: human development and economic growth seem to have started reinforcing one another positively, in contrast to the earlier experience of 'human development lopsidedness' (with weak economic growth).² No doubt, the dynamics of such 'virtuous' growth in Kerala is based on the comprehensive plane of human development, flourishing in the wider sense of human capability that captures both the utility-enhancing (as an end-in-itself) and productivity-enhancing (human capital as a means) values. And this broadly explains the revival of Kerala's economy in the second phase (since the late 1980s), when all the three sectors – primary, secondary and tertiary – presented an impressive growth momentum. However, such dynamics would not have been possible but for certain necessary enabling conditions – demographic dividends, emigration and certain economic reforms – that have collectively acted as the engine of 'virtuous' growth in Kerala.

² We have attempted to view Kerala's current 'turnaround' within the Ranis et al framework (see Ranis, Stewart and Ramirez, 2000).

2. Tasks Ahead

It is in this promising backdrop that we take stock of Kerala's experiences in the second generation as distinct from that sketched in the 1975 CDS-UN study. Defining human development in its truest sense in terms of a duality of availability (including accessibility) and quality, we find that the human development Kerala has achieved, once discounted for quality, mainly boils down to apparent capability enhancement. However, even quantitative achievement should not be underestimated; along with quality, 'real development' also is attained. This is the challenge for present day Kerala, as entirely distinct from most other Indian States, which are still wading through first generation issues. Thus, the challenge for this Report, as we perceive it, is not in measuring various indices of human development for Kerala and showing its ranking among Indian States. This has already been done in several reports, the latest being the National Human Development Report, 2001. The challenge instead lies, in our opinion, in the following:

- unravelling the 'lopsided development' (high social development with low economic growth) that characterised the Kerala economy till the late 1980s;
- understanding the new phase of growth during the last 15 years, and its possible linkages with human development;
- charting a human development-based growth strategy for the future; and
- building an intellectual case for quality as an essential attribute of capability, for instance, in education.

The State Human Development Reports, as envisaged by the UNDP and the Planning Commission, are expected to "convey important messages for planners and policy makers, through their diagnostic analyses and identification of factors contributing to successes and failures in human development" (Planning Commission notes on State Human Development Reports). We believe the present Report, by taking up the aforementioned challenges, does go in line with this expectation.

3. Towards an Approach

Human development is defined as "a process of enlarging people's choices". At the level of abstraction, this may be acceptable. This does not, however, go



very far in setting development priorities. The problem of development can be seen as a series of social choice dilemmas. Even though, in principle, there may not be much conflict between growth-oriented policy reforms and more public spending on the social sector, they are often posed as fundamentally opposed to each other. Not only is there no necessary conflict between the two, 'enlarging people's choices' might even serve as a rationale for promoting economic growth, for it is difficult to argue that economic growth does not enlarge choices. Although there is evidence from other countries that improvements in human development have been possible even in times of economic setback, such improvements may reach their limits if the economy does not recover and set out on a growth path. Slower growth eventually becomes a constraining factor on financing welfare expenditure: the State cannot generate enough revenue to finance and maintain its social development.

Economic growth expands the material base for social development. The extent to which the latter can advance, however, depends on the distribution of opportunities. In Kerala, one may argue, opportunities in terms of certain basic capabilities, such as the ability to live a longer life and access to school education, are much more equally distributed as compared to the rest of India. It is generally recognised that the possibility of

further improvement on the human development front now depends critically on the expansion of decent job opportunities, which in turn depends on the nature of the growth process. The CDS-UN study clearly identified educated unemployment as one of the most serious problems, and discussed it at length in a condition of high social development. The first few Human Development Reports of the UNDP, which seemed to have drawn positive lessons from the successes of Kerala on the social front, seem to have underplayed the importance of economic growth and its inevitability to generate productive employment and to increase wages. The *Human Development Report 1996*, for the first time, dealt explicitly with the relationship between economic growth and human development:

The record of economic growth and human development over the past 30 years shows that no country can follow a course of lopsided development for such a long time – where economic growth is not matched by advances in human development, or vice versa.

The transitory nature of lopsided development, as indicated above, triggers speculation about the alternatives. Researchers have articulated the basic idea of the possibilities of two diametrically opposite alternative consequences of lopsided development, in terms of what they call “virtuous and vicious cycles of development” (Ranis, Stewart and Ramirez, 2000). From this perspective, two distinct causal chains may be identified. One runs from economic growth to human development, and the other from human development to economic growth. These causal chains may give rise to a mutually reinforcing upward or downward spiral. High human development may lead to high economic growth, and this in turn makes possible a higher level of human development. As people become healthier and more educated, they contribute more to economic growth. Conversely, low human development constrains economic growth, which in turn stymies further human development.

Accordingly, countries may be classified into four categories, virtuous, vicious and those belonging to either of two types of lopsidedness: human development-lopsided type (that is, strong human development but weak economic growth) or economic growth-lopsided

type (weak human development and strong economic growth). A significant finding of the cross-country study cited above is that “while human development-lopsidedness permitted movement towards a virtuous cycle, in the case of economic growth-lopsidedness, all the cases reverted to a vicious cycle.”

Kerala’s potential for economic expansion, implicit in human development, had not translated into actual achievement till the 1980s. However, the State had in the interim avoided slipping into a situation of slow improvement in human development largely because private expenditures seem to have complemented public expenditure to finance health and education.³ In the light of the prognosis made in HDR 1996, Kerala appears to have passed the phase of lopsided development, if one takes into account the recent economic growth. Several studies have now come up with the observation that growth has not completely eluded Kerala after all.⁴ But does it indicate the advent of a virtuous cycle? Our Report probes this issue in depth within the approach outlined above.

4. Organisation of the Report

What we have discussed so far constitutes the core of the framework of analysis as well as the approach of this report. It argues for strengthening and enhancing the scope of the ‘virtuous cycle’ based on Kerala’s – no doubt, remarkable – achievements in human development. In the light of this, the Report has been organised as follows:

Chapter 1 presents an overview of Kerala’s development experience and the processes that shaped it, touching upon critical aspects of the current growth process, such as emigration, a dynamic service sector, decentralised governance and the persistence of educated unemployment.

Chapter 2 summarises the very many achievements of Kerala in human development, assessed in the space of non-income indicators, including demographic, health, nutrition, education and infrastructure indicators. These achievements have continued, belying the predictions of those who doubted the sustainability of the Kerala ‘model’ of development.

³ For instance, nearly 60 per cent of those who receive hospitalised treatment in rural areas, and 61 per cent in urban areas, go to private hospitals. The number of ‘private unaided’ schools (which run mostly on students’ fees) and self-financing courses in colleges have increased dramatically in the 1990s. Remittances from Keralites working outside the State provide the vital link in this chain of argument.

⁴ For example, see Subramanian and Azeez (2000); Ahluwalia (2002); Pushpangadan (2003); Jeromi (2003); and Kannan (2005).



Chapter 3 assesses Kerala's development experience in the income space, by reviewing its profile of per capita income growth, emphasising the role of remittance incomes and the state's performance on the income-poverty front. The chapter analyses, among other things, the turnaround in the Kerala economy since the late 1980s, after a gap of nearly a decade-and-a-half. The role played by various programmes for socio-economic security initiated by the Government is highlighted given the dramatic decline of poverty in Kerala in the 1990s. It brings out Kerala's distinct achievement in the institutionalisation of a whole range of socio-economic security programmes.

Chapter 4 is devoted to examining the problem of spatial and social group inequalities in human development. This has been done by analysing the inter-district variations in human and gender development indices, as well as through an index of generalised deprivation. Similar information by social groups (to the extent available) is also examined. The findings suggest that spatial inequality in Kerala is less of a problem than that of social groups.

Chapter 5 attempts to put the income and non-income dimensions of development together by examining the

sometimes mutually reinforcing, and the sometimes mutually conflicting, relationship between human development and growth. The new (late 1980s) phase of higher growth has been related to earlier achievements in human development through the linkages of demographic transition, migration and economic liberalisation. The nature of this growth led by the service sector is discussed. The achievements, however, are not devoid of problems: in particular, there are crucial constraints with respect to economic infrastructure, despite Kerala being classified in the 'high middle' category of the Infrastructure Index⁵ which have been, and could continue to be, an impediment to the economy's growth prospects.

Taken as a whole, and either absolutely or by any relativistic yardstick in the Indian context, Kerala's development experience has been an impressive one, as Chapters 2 to 5 show. There are lessons for both the good and the bad to be drawn from this experience. Chapter 6 emphasises the need to make the most of the immensely important asset of educational capital which the State has so assiduously built up over the preceding decades but cautions against problems of 'quality'; and Chapter 7 guards against complacency by pointing to the possibility that success can carry its own seeds of failure, two compelling features of which are the problems of educated unemployment and growing gender 'unfreedom'.

Chapter 8 looks ahead and attempts to sketch a strategy for realising a sustainable pattern of human development and income-growth, which are mutually reinforcing. Particular emphasis is given to the following: (i) the distinction between 'traded' and 'non-traded' goods; (ii) the need to take a 'high road' to development rather than a 'low road'; (iii) the need for identifying activities with maximum linkages; (iv) the need to identify Kerala's comparative advantages; and, (v) the need to take both a short- and a long-term view of the future. Within such a broad strategy, three areas have been identified for special attention. These are advancing educational capabilities, infrastructure development and improvement of governance.

Chapter 9 is devoted to a discussion on decentralised governance and human development. The establishment of *panchayati raj* in Kerala has inducted a new tier of governance at the local level, in which a number of

⁵ See the Twelfth Finance Commission, 2005-10 (Ministry of Finance, 2004).

functions are intimately related to the sustenance and enhancement of human development. While Kerala has demonstrated its capacity to engage itself with this new tier of governance, the analysis brings out some of its limitations. The challenge is to nourish this newly created structure of governance, which has also given a historic opportunity for the political participation of women. This chapter also discusses a new organisational mode for addressing poverty alleviation at the local level linked to the *panchayats*. The experiment is through the formation of a federated structure of neighbourhood groups of women from poor households. For this purpose, an umbrella organisation called *Kudumbashree* has come into being with the active support of the State.

Chapter 10 concludes the Report in the form of recapitulating the main findings and presenting a series of suggestions and recommendations not only for the further enhancement of human development in Kerala but also for strengthening what we hypothesise to be an emerging 'virtuous' growth cycle that links human development with economic growth. While this requires the active participation and deliberation of various stakeholders of Kerala's civil society, the State has to play a leading role in addressing many of the critical concerns.



Kerala's Development Experience

AN OVERVIEW AND PROCESSES THAT SHAPED IT

1. Introduction

This chapter attempts an overview of Kerala's development experience, briefly touching upon some of the historical processes that shaped it, explores the varied explanations and addresses some of the critical aspects of the current growth process. Kerala's achievements may be viewed as the outcome of the interplay of a multiplicity of factors rather than as owing to a specific causal factor. Nevertheless, the Kerala experience throws up issues that may be expected to inform policy-makers elsewhere in their endeavour to achieve human development goals within the constraints set by modest economic expansion. A central feature of Kerala's development experience is the role of education. It has steadily evolved and continues to evolve from literacy to school education and to adult education, spreading across the breadth and length of Kerala, to the poor and the non-poor, to all castes, including the former outcastes, and to not only men but also women.

A highlight of Kerala's development experience has been the rapid reduction in intra-State disparities and gender-differentials in most indicators of human development. It must, however, be emphasised that gender equality in education and health in Kerala has not led to the elimination of female disadvantage in social and economic roles. While literacy and education have spread across different social groups, with even the hierarchically lower castes being much ahead of their counterparts in the rest of the country, they are substantially behind the rest of the Keralite population in terms of some indicators of human development.

2. Present Day Kerala: A Profile

2.1 Background Features

The State of Kerala, located in the south-west part of India (see map) in its present form, was formed in 1956 as part of the linguistic reorganisation of the Indian States by merging the three Malayalam-speaking regions – the princely states of Travancore and Cochin and the Malabar district of the Madras Presidency. Its land area is 38,863 sq. km, stretching 580 km in length and 30-130 km in breadth. While in terms of area, Kerala forms only 1.1 per cent of India, its population (in 2001) of 31.8 million accounts for 3.01 per cent of India's population. Population density in Kerala is 819 persons per sq. km, one of the highest in the country.

This high population density is often camouflaged by the spread of a lush green biotic environment. Moreover, the population is spread across the State and as such there are no big urban agglomerations. The biggest city of Kerala, Kochi (often referred to as Cochin), has a population of only about 0.27 million. Kerala has three predominant religions. Christians and Muslims account for a greater share than seen in other Indian States and even all-India. In the 2001 Census, they accounted for 19 per cent and 24.7 per cent of the population, respectively, with the Hindus mostly contributing the rest. Christianity and Islam, as practised in Kerala are specifically Keralite.¹

Ecology plays an important role in the Kerala economy by providing a diversified natural resource base, enabling a large degree of occupational diversification. Geographically, the region comprises three zones. The low land, where the population density is the highest, consists of sandy and fertile soils of the river valleys, lakes and backwaters, providing the basis for fishing, rice and coconut cultivation and horticulture. In the midland region, coconut, rice, cassava, arecanut and cashew, along with rubber, pepper, and ginger on the slopes predominate. The high ranges, where the population density is the lowest, and which once consisted almost wholly of natural evergreen tropical forests, gave way to plantations of tea, coffee and rubber during the colonial times. Over the past century, the high ranges have also received migrant peasants, big and small, from the midland and coastal tracts.

The agro-climatic conditions in Kerala suit the cultivation of both cash crops and food crops. Under the colonial initiative, however, given an enabling legislative framework and market conditions, cash crops came to predominate. Agriculture forms the raw material base for a number of agro-processing industries, such as coir, cashew, wood and edible oil. These industries continue to occupy an important place, especially in terms of employment. A small segment of large modern industries based on minerals, chemicals and engineering have also come up, along with an increasing segment of small and medium industries, some based on modern technology and management.

A striking feature of Kerala's development experience is the growth of the service sector. Historically too, this sector has been more pronounced in Kerala than in the rest of the country. The largest shares of income (55 per cent) and employment (40 per cent) are generated in the service sector. Kerala's economy is no longer predominantly agrarian; the primary sector accounts for only 26 per cent of the State income and 32 per cent of employment (as in 1999-2000). This structure has significant implications for the future development of Kerala, some of which are dealt with in this Report.

Kerala has an active political society compared to the rest of India. There is a high degree of political activism, the consequences of which are subject to differences of opinion. No single party has been able to form a Government of its own since the formation of Kerala. Currently, two coalitions have been ruling the State; neither of them having managed to win a consecutive term. While one is led by the Indian National Congress, the other is led by the Communist Party of India (Marxist). There are also parties that do not belong to either of the two coalitions, but these are yet to gain any electoral representation in the State Assembly.

2.2 Human Development in Kerala: Historical Dimensions

The historical underpinnings of Kerala's achievements in terms of human development and the processes that shaped it differently for the three erstwhile regions are well documented (Tharakan, 1998; Jeffrey, 1992; Kabir and Krishnan, 1996; Ramachandran, 1997) and we sketch them out briefly. Kerala's experience also

¹ These may be, therefore, viewed as intercultural constructions rather than as imported faith. Cultural diversity is within what may be called a Kerala template. This, in turn, is embedded in a larger Indian template.



demonstrates that it is possible to achieve remarkably high levels of human development within a short time span of one generation. At the time of Independence, there existed wide regional differences within Kerala, in terms of the broad indicators of human development. Travancore in the south had made significant progress in the educational and health status of its population compared to Malabar in the north. Kochi in the middle fell in between. These differences narrowed down in the subsequent period and within the next 30 years, Malabar caught up with Travancore in terms not only of facilities for health care and education, but also in health and educational outcomes (Kabir and Krishnan, 1996).

2.2.1 The Economic Background

How does the course of human development link up with the social, economic and institutional changes in Kerala during 1800-1956? Kerala had prevailed as three separate political entities since the beginning of colonial rule: Malabar, under direct British rule following the defeat of Tipu Sultan in 1792; Travancore (known as Thiruvithamkoor in Malayalam); and Cochin (Kochi in Malayalam), were allowed to continue as tributary princely states under their local kings, following treaties with the British.

Differentials in the agrarian structure had far-reaching effects on the economies of the three regions. In Travancore, a substantial proportion of the land was brought under State control and was cultivated by numerous tenants, who were subsequently conferred ownership rights through a Royal Proclamation issued by the Government of Travancore in 1865. This had the effect of strengthening the revenue base of the State

besides creating a large number of peasant proprietors. By 1904, Travancore had more than 500,000 revenue-paying landholders, each holding a small piece of land in contrast to the situation in Malabar.

In Cochin, a similar proclamation, conferring ownership rights to State's tenants, was promulgated in 1909 nearly half-a-century later. Since State-owned land in Cochin, formed only a small part of the total cultivated land as compared to Travancore (40 per cent), the impact of such proclamation was less pronounced.

The State policy of conferring ownership rights to those who brought new lands into cultivation and the rise in produce prices from the 1860s stimulated agricultural expansion and commercial cultivation of various crops in Travancore. In Cochin also, there was expansion in commercial cultivation, particularly of plantation crops along the hill tracts, but not to the extent seen in Travancore.

The developments in Malabar were in sharp contrast to those in Travancore and Cochin. No serious legislative measures for tenancy reforms were taken up in Malabar until the second decade of the 20th century. Unlike in Travancore, where a part of the benefits of commercialisation reached the cultivators (who owned the land), the major beneficiaries in Malabar were the *janmies* (landlords)² and the middle tenants who reaped agricultural surplus through rent. In fact, the agrarian history of Malabar throughout the colonial period was one of rack-renting and pauperisation of the peasantry. Thus, the economic environment in the two princely states of Travancore and Cochin was much more conducive to an enhancement of well being of the people, relative to Malabar.

2.2.2 Modern Education and Health: Early Beginnings

Modern systems of education and health care were introduced in Kerala during the early decades of the 19th century. In introducing them, the administration was motivated by the needs of the colonial economy to fill the lower levels of administration and to safeguard British personnel stationed in the region from the scourge of diseases. Malabar took the lead in introducing vaccination against small pox in 1801. It was adopted in Cochin in 1802 and in Travancore in 1813, at the behest of the British Resident. The attempt

² The British administration in its effort to gain political support vested power with the *janmies* and gave them absolute rights of ownership.

to introduce the modern system of education came slightly later in the three regions. A royal proclamation issued in 1817 in Travancore undertook to “defray the entire cost of education of its people in order that there might be no backwardness in the spread of enlightenment among them”. This was followed by an attempt to open vernacular schools in different parts of the State.

Most of the schools initially established did not survive long, and were abolished consequent upon the changes in the British educational policy in India in the middle of the third decade of the century. The Bentick Resolution, which declared the grand object of the British Government in India was to promote European science and knowledge, made the local Governments tilt towards English education and European medicine. Consequently, the provincial Governments opened a few English schools and hospitals in their territories.

The progress in education and health attained by Travancore took place against the conjuncture created by the commercialisation of agriculture and the modernisation programmes initiated in the 1860s. The market relations that emerged from commercial cultivation required the peasants as well as those associated with the processing and marketing of these crops to acquire essential skills, not only in arithmetic but also in reading and writing. Besides, the expansion of trade and the increase in the area under cultivation sharply raised the Government's revenue, so much so that from the early 1860s till 1904-05, Travancore experienced only surplus budgets. This, inter alia, facilitated the Travancore Government to earmark an increasing proportion of its expenditure on social services, especially education and health care. In 1862-63, Travancore's budgetary allocations for education and health care were 0.58 and 0.39 per cent, respectively. By 1899-1900, the figures rose to 5.34 and 4.07 per cent, respectively, and by 1947, to 15 and 4.14 per cent, respectively. Between 1871-72 and 1946-47, State expenditure on education increased by 71 times and that on health by 26 times.

The Government not only opened schools and hospitals of its own, but also promoted private agencies through grants-in-aid. The activities of the Christian missionaries decisively influenced the expansion and development of health and educational facilities in Kerala.³ While State institutions did not allow the entry of the ‘lower’ castes, by the late 19th

century, schools started by the missionaries had opened up their doors to the underprivileged and the untouchables. Cochin had by that time around 75 ‘aided’ schools, ‘most of which were run by Christian missionaries and indigenous Christians’. The operations of the Christian missionaries were of a much lesser magnitude in Malabar. Unlike in Travancore and Cochin, the caste rules did not have legal protection in Malabar and the schools and hospitals there were, at least in law, accessible to all castes.⁴

By 1900-01, Travancore had over a thousand schools under the control of its education department. Of these, a little less than half were directly run by the State and the rest by private management. The schools together enrolled 96,700 pupils. There were 54 allopathic medical institutions run by the Government, visited annually by 623,643 persons. Cochin also had made good progress in education and health care by the turn of the 20th century, though not to the extent as Travancore. By 1901, Travancore had 35 hospital beds per 100,000 persons. It may be noted that in 1901, Malabar had only 25 medical institutions and the number of hospital beds per 100,000 persons was as low as 15. Even in 1956-57, the number of hospital beds per 100,000 persons in Malabar was only 34, a position reached by Travancore 60 years before (1896-97). Cochin fared better than Malabar. By 1909, Cochin had 33 hospital beds per 100,000 persons and 17 allopathic medical institutions, or 1 medical institution per 108 square miles.

The growth of modern institutions for education and health in Travancore had not been at the cost of the indigenous systems that had been prevailing in the Malayalam speaking areas since time immemorial. Even after a sizeable number of the indigenous schools were brought under inspection and control, there were over 2,000 of them outside any control in 1901 catering to 87,422 pupils, not very different from the number of students enrolled in ‘modern’ schools. Probably, their continuation reflected the growing demand for education.

Similarly with respect to indigenous medicine, the Travancore Government in 1896 extended the system of grants-in-aid to qualified practitioners of *Ayurveda*, the indigenous medical system and by 1905, there were 64 *Ayurveda Vaidyasalas*. It may be noted that the policy of the Travancore Government with respect to indigenous medicine stood in sharp contrast to the policy of antipathy followed by the British Government in India from 1835.

³ The grant-in aid scheme came in handy for the Christian missionaries who had established schools in the region with the active support and patronage of the State in the form of land and money as early as the second decade of the 19th century.

⁴ By 1908, Travancore had 3,735 schools, out of which 59 per cent were established by various Christian denominations.



The British administrators saw indigenous medicine as "an empirical system, undoubtedly less scientific than the European system."⁵ Though the Government of Madras gave recognition to *Ayurveda* in 1923-24, the policy continued to be 'lukewarm and half-hearted'.

In Malabar, since the 1860s, the colonial Government had emphasised the need to extend education and health care facilities, but the burden of opening schools and medical institutions was left almost entirely to local initiative. Elementary education and health care became the exclusive responsibility of the municipal boards and local funds constituted under the Town Improvements and Local Funds Act of 1871. The responsibility of the provincial Government was limited to a few areas like secondary education and the maintenance of Class I hospitals. With limited resources, the progress that the local bodies could make in education and health care too was limited. By 1902-03, the combined expenditure of the provincial and local bodies in Malabar on health care and education stood at barely 40 and 78 per cent, respectively, of the corresponding figures for Travancore, while the population of Malabar was nearly 95 per cent of that in Travancore.

We have noted that the Governments in Travancore and Cochin opened their own schools besides promoting private initiative through grants-in-aid. Against this, the policy in Malabar was to bring the already existing indigenous schools under inspection and control through

a system of grants-in-aid introduced in 1856. Also, there was progressive conversion of the indigenous schools, including Muslim religious schools (*madrassas*) attached to mosques, into grant receiving ones. This led to the progressive reduction in the number of indigenous schools even as progress in the number of schools opened by the Government and by organised agencies was very limited.⁶

By 1902, Malabar had 1,094 recognised schools catering to 71,677 pupils under the control of the education department. In addition, there were 613 indigenous schools with 22,410 pupils. Considering all the schools (Government, aided and unaided), the population to school ratio in Malabar was 1,641 *vis-à-vis* 801 in Travancore. Excluding the unrecognised indigenous schools, population per school in Malabar was 2,560 as against 1,996 in Travancore.

Again, unlike in Travancore, where the commercialisation of agriculture had resulted in raising the incomes of the different sections of the community, in Malabar, the benefits of the limited progress of commercialisation were restricted to the landlords and the rich upper class tenants, as also to large traders in the urban centres. The vast majority of the population was prevented by abject poverty from sending their children to schools. The very many handicaps that Malabar experienced under direct British rule, in particular the prevailing agrarian structure and the social relations that it gave birth to, caused it to lag behind the two princely territories.

The initial momentum in social development that Travancore had generated during the second half of the 19th century became stronger during the first half of the 20th century. This was because of proactive State response to caste or religion-based social reform movements. These movements had received an initial stimulus from the commercialisation of agriculture and from early missionary activities, particularly in education. The reform movements raised the question of access to health care and education of the socially excluded as a matter of right and placed it before the State. Again, Malabar lagged behind with little progress in education or in other areas.⁷ There, progress had to wait till the beginning of

⁵ Cited in Kabir, 2002:156.

⁶ The missionary operation in Malabar was confined to the activities of the Basel Evangelical Mission (BEM) that started functioning in Malabar in the third decade of the 19th century. By 1907, BEM had established only 54 schools and the number of pupils admitted did not exceed 5,488 (Kabir and Krishnan, 1996).

⁷ For example, in 1901, Malabar had a literacy rate of 10 per cent, as compared with 12.4 per cent in Travancore and 13.4 per cent in Cochin; the gap widened in the following decades (Table 1). Whether the growth of literacy is a linear process is a matter of debate. The renowned social anthropologist, Kathleen Gough (1968:151), for example, makes an approximate estimate of Kerala's literacy level at a quarter of the population during the 17th and 18th centuries. She notes that there was an 'alarming increase of illiteracy' early in the British period. According to her, "schools and colleges were disrupted in the wars of the late 18th century and the British, by introducing English as the medium of education, discouraged Sanskrit and vernacular village schools" (Ibid: 155).

the nationalist movement followed by radical political and social movements. These movements sought to address the issue of education of the masses, a key element in enhancing human capabilities across society.

2.2.3 Reform Movements and Social Change

Kerala is said to have had the most rigid caste system in India. In Travancore, caste rules, manifested in the system of distance pollution, protected by the State had the power of law. The role of missionaries and reform movements among the lower and outcastes during the 19th and early 20th centuries in ensuring to them some of the essential civic rights, has been documented.⁸ The missionary schools opened up avenues of education to the low castes. Public services, including schools and hospitals established by the Government, however, remained inaccessible to the low castes and outcastes. Some low castes, especially the *Ezhavas*, seized the opportunities offered by the economic changes from the latter half of the 19th century to improve their economic position. The Sree Narayana Dharma Paripalana (SNDP) *Yogam*, established in 1903 to propagate the teachings of Sri Narayana Guru, was the torchbearer of the emerging consciousness. The message of the *Guru* was 'to gain enlightenment through education and strength through organisation'. Initially, the agitation of the low castes was centred on gaining access to schools and other public institutions, and for appointment to Government jobs. It gradually took to larger questions of freedom, like political representation and entry into temples.

Parallely, Ayyankali, the leader of the *Pulayas*, an agrarian slave caste, was fighting for the cause of the depressed castes. In 1907, Ayyankali established the Sadhu Jana Paripalana *Sangham* (SJPS) as an organisation to fight for the cause of the depressed castes. Like Sri Narayana Guru, Ayyankali viewed education as the most important means for the liberation of the low castes. The *Sangham* demanded admission of outcastes into schools and for the removal of the social disabilities arising from caste. The upper caste Hindus resisted this. Knowing very well that the agrarian economy of the lords could be shaken if *Pulayas* abstained from work, Ayyankali organised the *Pulaya* agricultural labourers to strike work till the schools were opened up for *Pulaya*

children. It is significant that even before the *Sangham* was organised, the *Pulayas* had started agitating for gaining access to hospitals.⁹

It was not only the low castes who organised themselves but also the upper castes and even those who remained outside the pale of the Hindu caste system. The Nairs, who found their dominant caste position being affected by their system of family organisation (matriliny) and by the policy of the Travancore Government of inducting Tamil Brahmins into key positions, established the Nair Service Society in 1914. This organisation strove for internal correction of the community, reforms in marriage and property laws, promoting education and for strengthening their position in Government services. Similarly, Abdul Khader Moulavi established the Muslim *Mahajana Sabha* to propagate reforms within the Muslim community and to promote education. Even before embarking on an organisational mode, the Moulavi had started to use publications and journalism as methods to bring in social reform among the Muslims.

A common characteristic of all these movements was their emphasis on education. For the economically dispossessed low castes and outcastes, education was the route to liberation. For the others, it was a method to stabilise or improve their social position. Apart from placing the demands before the State, each community addressed the question of education by opening their own institutions with resources raised from within the community. The SJPS raised resources from the poor agricultural labourers to start its own school for the *Pulaya* children. Later the NSS, the SNDP and Muslim organisations like the Lajmathul Islam *Sabha* collected funds from their members to establish schools of their own. The most important contribution of these organisations may be seen in their effort to conscientise the members of their communities about education.

Initially, each organisation raised its demands independently without forging alliances. Gradually, the caste-based movements gave way to organised political movements. By the end of the second decade of the 20th century, Christians, Muslims and *Ezhavas* came together to form the Civil Rights League and later the Joint Political Congress. The Congress demanded that appointments in all Government departments should be thrown open to all castes and religious groups. The three

⁸ Following the abolition of slavery by the Government of India in 1844, it was abolished in Travancore only 10 years later in 1853.

⁹ For an instance, in 1904, the *Pulayas* of Kannamoola and Ulloor, suburbs of Trivandrum, marched to the Trivandrum General Hospital seeking the admission of low caste people to inpatient wards.

Table 1.1: Literate Persons as a Proportion of the Population, 1901-1951

Year	Total Persons			Males			Females		
	Travancore	Cochin	Malabar	Travancore	Cochin	Malabar	Travancore	Cochin	Malabar
1911	15.0	15.1	11.1	24.8	24.3	19.0	5.0	6.1	3.5
1921	24.2	18.5	12.7	33.1	27.3	20.9	15.0	9.9	4.9
1931	23.9	28.2	14.4	33.8	38.3	22.9	13.9	18.5	6.4
1951	46.7	43.3	31.3	55.6	52.2	41.3	37.7	34.7	21.7

Note: 1941 figures are not reported as the Census was conducted during World War II and hence might not be reliable. Source: Census Reports.

communities came together again in the mid-1930s to lead the Abstention Movement, demanding proportional representation in the State legislature.

The wave of social change that Travancore witnessed had its reverberations in Cochin and to a small extent in Malabar. In Malabar, caste rules lost their legal sanctity consequent to the establishment of British rule and all public institutions were legally accessible to the members of all castes. The barriers to low castes were, however, as much economic as social, constrained as they were by the prevailing agrarian structure.

Most of the barriers to the admission of low castes into Government schools in Travancore were removed by 1904. Yet, it was only after 1914 that they became accessible to all castes. It took two more years for all hospitals to have in-patient facility for the *Pulayas* and other similarly situated castes. However, some girls' schools and schools in the proximity of high-caste temples still remained inaccessible to low castes. These barriers could be overcome only with the Temple Entry Movement in 1936, which opened all temples in the State to all Hindu castes.

The impact of the social reforms was felt immediately on educational enrolment and literacy in Travancore. The removal of caste barriers on school admission during the second decade of the 19th century led to a sharp increase in literacy rates. Similar was the increase in literacy in the 1930s, which may be attributed to the removal of all barriers on the access of low castes and outcastes to all public places and their greater freedom.

The progress in literacy was very slow during the first three decades of the century in Malabar. It suddenly picked up during the next two decades, thanks to social reforms among the Muslims and the nationalist movement, and movements of peasants and teachers. There were enthusiastic attempts to bring children to schools, to organise libraries and reading rooms in rural areas, and to spread the spirit of education among the ordinary masses.

2.2.4 The Agenda of Emancipation and Redistribution

The old order was on the decline under the pressure of social and economic changes brought about by the spread of school education, monetisation and commercialisation, and nascent industrialisation. The freedom struggle imparted the inevitable political dimension to this flux. The political aspirations and assertions assumed the form of a mass movement, with the emergence of a radical group in the State Congress. This gave birth to the Communist Party in Kerala. The combination of nationalism and socialism, enriched by education and popular literary movement that strengthened working class solidarity, gave rise to a high awareness of human rights with inescapable implications for development. Whether the Communist Party purposively discounted the caste question (which has persisted) or allowed it to disappear under the questions of class and nation, and to what effects, needs to be probed.

The political freedom of the labour preceded significant reforms and freedom in the social and economic spheres. Inducted into the first Communist ministry after the State was formed were professionals: an academic, a physician and a lawyer, who sought to strengthen the State's role in the universal provision of education, health care, and in redistribution. The State, backed by an emancipatory political movement, instructed and attempted to introduce diverse capability-expanding measures. The first Communist ministry failed in realising its comprehensive programme for development; however, the enabling environment led to an increasing public demand and the political economy of populism ensured the corresponding public supply. Such demand-supply dialectics served to *institutionalise* these aspirations and measures making it mandatory for later Governments, both of the right and left dispositions, not to ignore them, except at the cost of their own survival.

2.2.5 The Post-Independence Period

The substantial freedom in the social and economic spheres that followed the political freedom comprised a series of turning points. Radical land reforms in the 1960s were a landmark in the development history of Kerala. It bestowed a measure of economic freedom upon the large mass of agricultural labour households through land redistribution, conferment of ownership rights to hutment dwellers, creation of colonies for members of the Scheduled Castes (SC) and Scheduled Tribes (ST), with lands, buildings, and facilities. Equally radical was the Kerala Agricultural Workers Act (1974), hailed as the *Magna Carta* of agricultural labourers in the State. It prescribed hours of work, security of employment, higher minimum wages and welfare provisions. It heralded wage inflation in Kerala that contributed to a rise in living standards but also, among other factors, to the decline of the highly labour-intensive rice cultivation.

Yet another landmark was the vast network of public distribution of food. It increased people's access to foodgrains and other items of daily consumption, such as sugar, edible oil and kerosene, by subsidising the difference between the market and the issue prices through fair price shops. At another level was the public distribution of food in Kerala through the school-feeding programme (discussed in greater detail later).

An expanding network of social security and welfare measures, such as pension schemes (for agricultural workers, widows, destitute, old age and the physically handicapped) and welfare funds (for informal sector workers), taken up over time under populism and organised public demand also ensured enhancing of economic freedom.

The aspirations of a new generation free from ignorance and ill health resulted, through public demand and supply, in wider access to education and health care. Even by 1971, a little over 60 per cent of Kerala's population was literate, as against 29 per cent for all-India,¹⁰ and Kerala always led all other States in per capita expenditure on education.¹¹ In the 1950s, education claimed 35.6 per cent of the total State Government expenditure, rising to 39.7 per cent in the 1970s.¹² Kerala was again fortunate in that the literary movement helped develop a non-formal education system with a wide network of libraries and reading rooms, and a large number

of newspapers in the language of the people, Malayalam. A number of voluntary organisations also emerged, consciously and conspicuously imparting scientific and rational awareness among the masses.

All these had a favourable impact on the health front also. Kerala attained high health status in respect of all standard indicators of maternal, infant and child health as well as of the general health of the people, on par with those of many developed nations, due to a vast health care infrastructure facilitating access to institutional care. The network of primary and community health centres extended their services to the remotest of rural areas in the State.

Behind all these improvements was an ever-growing public demand. But the initial immediate causes such as the lure of a secured job and the associated opportunities were not sustainable themselves. It should be noted that agency well being is a function not only of the capability to function but also of its translation into achieved functioning. Otherwise, discontent and frustration set in. Thus, enhancing social development presupposes expanding economic opportunities. However, given the regional character of the Kerala economy, the capability-building development process could not lead to enhancing opportunities in the productive sectors of the economy. It created and accumulated a large reserve of human resources much in excess of physical capital, thus giving rise to the socially frustrating outcome of educated unemployment. Kerala thus was not able to translate its greater freedom into actual achievement.

Nevertheless, the social development achievements implied a positive outcome of a fast demographic transition,



¹⁰ Panikar and Soman, 1984: 60.

¹¹ Menon, 2000: 285.

¹² Panikar and Soman, 1984: 61.

resulting in almost wiping out further demographic pressure. Alongside, the accumulated human capability responded to employment opportunities emerging in the wider world and re-located itself, generating substantial linkage effects of the 'Gulf boom', raising per capita consumption expenditure in the State much ahead of the per capita State domestic income. With this expanded economic capability, public demand for further social development such as education and health care also rose to new heights and the political economy of populism responded positively.

3. Perceptions on Kerala's Development Experience

3.1 Some Earlier Studies

As stated earlier, the CDS-UN (1975) study noted how Kerala's educational policies helped promote considerable vertical social mobility by making school education accessible to students from all socio-economic strata. Education has been seen as an important factor governing the utilisation of public health services, thereby reducing infant and overall mortality rates, and raising life expectancy, helping to postpone the age of marriage of girls, changing their attitudes to family size and promoting the effectiveness of family planning programmes. All this could be attained in spite of Kerala being 'a relatively poor State in India' (CDS-UN, 1975).

The CDS study triggered curiosity and scholarly interest in Kerala's development experience. The region was subsequently viewed as an exemplary case that could be invoked to demonstrate the general possibility of achieving high levels of social development even with very little economic advancement, and the so-called 'Kerala model' eventually became part of the global development discourse. Opinions on the 'model', however, differed significantly – from enthusiastic admiration to prophecies of gloom and doom. During the 1960s, Kerala was often referred to as a 'problem State' because of its political instability compounded by chronic food shortages and high unemployment. Even though the problem of food shortage eased by the 1970s,

the image of a region with a highly organised working class constantly in strife with capital and the entrepreneurial class got permanently imprinted.¹³ In the 1970s, while the economy continued to perform poorly, a good number of households began to see the possibility of a better life because of the money sent in by family members working outside Kerala. From the mid-1970s, the Kerala economy started receiving a significant amount of remittances, which has continued through the 1990s and beyond.

However, for almost 30 years between the late 1950s and 1987-88, Kerala's economic performance was rather dismal despite its high human development, reflecting a 'human development lopsided' pattern of development. But it had not slipped into a situation of low income and low human development, as the HDR 1996 generally predicted. The lopsided development thus persisted much longer than what is considered normal by HDR 1996 (a decade or so). This long period of lopsidedness triggered a series of writings in the 1990s, with a pessimistic prognosis about the future. These writings argued that Kerala's economy was on the verge of a crisis due to the heavy burden of welfare expenditure and declining material production, and therefore the possibility of slipping into a situation of slow improvement in human development and income was imminent.¹⁴ The basic contention was that the State could not generate enough revenue to finance and maintain its social development, and the fiscal crisis was reflective of a deeper structural crisis of continuous stagnation in the productive sectors of the economy.

Drawing extensively on this argument, it was further attempted to establish that the particular model of State intervention and mobilised pressure from below, which have made exceptional levels of social development possible, are at the very roots of the 'crisis'.¹⁵ Thus, a more fundamental critique of Kerala's development pattern runs in rather systemic terms. The lack of growth is seen as inherent in the very pattern of development, which has been heavily welfare oriented. Even though this line of argument appears to be close to the one discussed above, the two differ in their concerns and emphasis.¹⁶

¹³ See Kannan, 1990.

¹⁴ This seems to be the position taken by George (1993, 1998) and some others.

¹⁵ For example, see Tharamangalam (1998). Similar arguments were put forward earlier by some analysts in the context of Sri Lanka. In the late 1970s and early 1980s, a group of scholars started highlighting the exceptional achievements of Sri Lanka in the human development indicators as an example of how welfarist interventions could enable a country to bring about significant improvement in the basic capabilities of people relatively quickly. This could be achieved without waiting for economic growth. Some detractors, however, argued that Sri Lanka's long-term growth prospects were seriously impaired by its welfarist policies. This led to a lively debate to which Bhalla, Glewwe, Isenman, Sen, Ravallion, Anand and many others contributed.

¹⁶ The former position, which emphasises fiscal limits to maintenance of high welfare expenditure, seems to accept the assumption that the relationship between human development and economic growth is one of complementarity; economic growth is indeed needed to generate resources for social development. The latter position, however, seems to reject the idea of complementarity itself and suggests that the lack of growth might be due to the heavy emphasis on human development (Tharamangalam, 1998).

In more recent years, however, one observes a turnaround in this narrative. Several studies have now come up with the observation that growth has not completely eluded Kerala after all.¹⁷ Kerala may no longer be considered a 'relatively poor State', if one compares its per capita income with the all-India average. Kerala's per capita net domestic product has been above the all-India average since 1994-95, and despite similar rates of aggregate growth, it has been growing faster than the all-India rate – thanks largely to the low rate of growth of population. The pattern of sectoral composition of output too has changed in the 1990s, increasingly more towards the tertiary sector that now accounts for over half the State gross domestic product.

High service sector growth may be seen as facilitated by high human development achievements. This, however, has not been given the attention that it deserves, perhaps because of the predominant view that services are not 'productive'. It is high time we acknowledged that "many services play a far more important role in the development process than is indicated by their direct contribution to GDP. Due to inter-linkages with other activities several services... can dramatically affect the overall development performance of countries."¹⁸ Moreover, "if the overall economy is performing well despite the lag in manufacturing growth on the basis of the remarkable growth rate of the service sector, it is logical to re-read the old paradigm of industrialisation based on manufacturing and form a new vision on the direction and pattern of industrial development of Kerala."¹⁹ What has been viewed with more or less the same level of concern as before, if not more, is the problem of a growing number of the educated unemployed.

An unpacking of the dynamics of the rapidly growing service sector, along with what we discussed earlier, supports our basic intuition that there must be complex linkages between early achievements on the human development front, people seeking opportunities in labour markets outside Kerala, and remittance-driven growth in consumer demand providing considerable impetus to service sector growth. But what explains the phenomenon of growing educated unemployment? Even though the unemployment problem does not belong to the core of the human development paradigm, an understanding of the linkages between growth and human development (refer Chapter 5) cannot be accomplished without an understanding of the problem, specifically in the Kerala context.

3.2 Unemployment and Emigration

There has been growing literature on emigration from Kerala and its impact on the economy of the State. Empirically estimating the total impact of migration is a difficult task. Nevertheless, some commendable attempts have been made in this direction²⁰ (see Chapter 3). Here, we make an attempt to relate analytically the education system, migration and unemployment, and we argue that there might be some structural links between them.

Unemployment, undoubtedly, is the most serious form of capability failure in Kerala. The issue is discussed in detail in Chapter 7 as an 'area of concern'. Of those registered in the Employment Exchanges, 80 per cent have education at secondary level and above. We argue here that in the Kerala context, there are some connections between the welfarist interventions and unemployment.

The impressive quantitative expansion of education has brought about a series of interrelated benefits to the people of Kerala. The argument that health benefits and positive demographic changes are related to the universalisation of basic education is now commonplace. However, educational expansion has led to a mismatch between the aspirations of the new entrants to the labour force and the requirement of the labour market for hands to fill relatively unskilled, low productivity jobs. The truth is that given the structure of the economy, Kerala simply cannot absorb a majority of the new entrants to the labour force who have SSLC and higher level of education. There is a glaring mismatch between people's expectations arising from educational qualification and the economy's ability to provide not just gainful but deserving employment.

One might think that the excess supply of educated people would force the educated to accept any job after a while and drive down the wage differential between the educated and the uneducated. However, the level of wages in the formal/organised sector, where most of the educated end up, is still determined by a variety of institutional factors. In terms of a schematic model, one can draw some logical inferences, the importance of which is not readily discernible in our policy discussions. Here is a sketch:

¹⁷ For example, see Subramanian and Azeez (2000); Ahluwalia (2002); Pushpangadan (2003); Jeromi (2003); and Kannan (2005).

¹⁸ UNCTAD (1984).

¹⁹ Subramanian and Azeez (2000).

²⁰ Kannan and Hari (2002); Krishnan (1994).

Despite the existence of a large pool of unemployed, wages do not adjust even at the lower rungs of the skill ladder. For one thing, there is a 'social wage', with a 'ratchet' effect arising out of the institutional power of organisation of workers and the notion of what is a fair wage on the one hand and the fall-back mechanisms that are available in the form of public provisioning of basic needs as well as social security on the other. This creates a 'social floor' below which wages will not fall. However, one can reasonably hypothesise that the lowest wages tended to get pulled up by the highest. With this kind of institutionally given wage setting, it is inevitable that the labour market will be characterised by a very high degree of open unemployment. At the same time, even though unemployment is pervasive among the people with almost any educational level, and it is more so among the 'less' educated than the 'more' educated, giving rise to a politically articulated demand for education. And this demand has been effectively met though public provision by a willing State.

As the average wage of the educated increases, there occurs a greater desire for education, the supply of the educated increases and that of the uneducated decreases. Besides, with emigration of the educated, more hopes come to be attached to education. If the expected openings fail to materialise, the increased supply of educated labour may cause educated unemployment to increase. Simultaneously, with the increased preference for education and the consequent fall in the share of the uneducated and their reduced supply, unemployment among the uneducated is likely to decrease. Put differently, even if the current trend of emigration among the more educated segments continues, the problem of educated unemployment may not lessen. It may even worsen. These are, of course, tentative theoretical arguments, and one has to be very careful before any policy conclusion is drawn. This may take us to an examination of passive versus active labour market policies. European Governments have generally favoured 'passive' labour market policies, such as increased unemployment benefits, over 'active' policies, such as job creation incentives. To some extent, Kerala too has evolved something close to the European model through its wide network of social security. A fresh thinking is needed in this direction.

Such fresh thinking will lead to a different perception on the need for further State intervention in education.



It will ask for strengthening the quality of education, beginning with basic education and to enhance the levels of skill and specialised knowledge at the higher education level. This calls for appropriate public policies and investment in education to equip the unemployed to seize opportunities anywhere. Such an approach has to be complemented by enhancing the quality of economic and social infrastructure as well as that of governance.

3.3 Decentralised Governance

The 73rd and 74th Constitutional Amendments in 1993, mandating the formation and functioning of local bodies (*panchayati raj* institutions) and listing several functions of the Government to be handed down to local bodies, marked a watershed in India's quest for democratic development within a pluralistic, parliamentary, electoral framework. Development literature had already focussed attention on the question of what constitutes good governance, i.e. the way in which power is exercised in the management of economic and social resources of an economy, which will yield better development outcomes. Decentralisation was defended on the grounds of bringing Government closer to people and hence ensuring better results. The effectiveness of the mandate of decentralisation of administration and devolution of powers, however, depended on the success of those States that took up this task seriously. Kerala is one such State. Though *panchayats* had been in existence in Kerala for several decades, their track record had been poor. The Constitutional amendments came as a catalyst, especially in the Left political sphere of Kerala, waiting for some further dynamics of organisation and mobilisation.²¹ There

21 For more details, see Kannan and Pillai (2004 and 2005).

was also a compelling internal dynamics that contributed to the political acceptability and commitment to the task of decentralisation. In Section 3.1, we noted that up to the late 1980s, there was a situation of economic 'crisis' in Kerala's development process due to the poor performance in the commodity producing sectors. Over the greater part of the 1990s, however, with a 'turnaround' in economic growth, the prevailing mood among analysts and observers of Kerala's development was somewhat mixed, if not of 'despondency and despair'²² though the problem of unemployment, in particular educated unemployment, continued to loom large. The focus of discussion in the International Congress on Kerala Studies held in 1994, for instance, turned out to be on "the contemporary crisis and the possible solutions rather than on the much acclaimed achievements of the past."²³ The expectation was that the spectacular achievements in social development would, and should, lead to much higher levels of economic development and greater inclusiveness than that achieved so far.

Decentralisation, implying governance closer to the people and hence more responsive, was seen, if not as a panacea for all ills, as a way out of this logjam. It was expected to facilitate local-level development by mobilising both people and resources to strengthen the productive base, especially in the primary sector by creating and maintaining public and collective goods, such as in land and water management and agricultural extension. In fact, the urge for decentralisation went beyond this. The aim was the establishment and institutionalisation of local self-Governments and



Kerala's attempt at a participatory, systematic and transparent process of decentralised planning has been hailed as another of its unique achievements (discussed in greater detail in Chapter 9).

4. Concluding Observations

This chapter has attempted a synoptic review of Kerala's development experience, specifically the historical underpinnings of its human development achievements, in which the role of public action both for the people by the State and by the public for itself played an important role in furthering its achievements. The phase of 'human development lopsidedness' in the State continued for over a decade, causing considerable concern and generated a wide debate on the sustainability of the Kerala 'model' of development. A quantum increase in emigration since the latter half of 1970s, especially to the Gulf countries, muted the intensity of the economic 'crisis'. However, the fact that the economy did not spiral downwards in terms of human development indicators but experienced a 'turnaround' in economic growth in the late 1980s in all sectors, but more specifically the service sector, injected a fresh look at the development experience. It encouraged us to hypothesise about the possibility of an emerging 'virtuous' cycle of growth in which early achievements in human development, people seeking work in labour markets outside Kerala, and remittance-driven growth in consumer demand resulting in service sector growth, appeared to be closely linked. The persistence of unemployment, in particular educated unemployment, is perhaps the most serious form of capability failure and is much more 'open' in the specific context of a literate/educated Kerala. That the revival process too, expected to equip the unemployed to seize employment opportunities anywhere, should be participatory in nature was resolved by the converging of intensive rethinking on questions of governance which would yield better development outcomes. The expectations from decentralisation, which would bring the Government closer to the people and hence be more responsive, transparent and delivery-oriented, were very high. The Constitutional Amendments in 1993 facilitated the shift towards decentralised governance and Kerala is one of the few States that embarked on this process seriously. Subsequent chapters take up each of these issues in more depth.

²² For example, Tharamangalam (1998).

²³ Isaac and Tharakan (1995).

Assessing Development

SOME NON-INCOME DIMENSIONS

1. Introduction

It is against the backdrop of processes, historical and more recent, and the glimpse we obtained of the possible links between Kerala's human development achievements and the current phase of economic growth that this chapter probes deeper into the non-income dimensions of development that have gone into the making of what has come to be called the 'Kerala model'. The emphasis here is on a disaggregated analysis, wherever possible, by district, rural-urban and gender. Some of the setbacks in the level of 'achieved functionings' have been highlighted. A major failure of the human development experience in the State has been the persistence of horizontal¹ disparities in terms of social groups, which will be discussed later.

¹ Disparities between culturally defined groups (Stewart, 2002).

2. Demographic and Health Indicators

2.1 Population Trends

The population of Kerala is 31.84 million according to the 2001 Census. In the recent period, Kerala's population has been growing at a much slower rate than the population of India as a whole, at 0.93 per cent during 1991-01, which is the lowest among major Indian States, followed by Tamil Nadu. The decline in growth rate was contributed to partly by decline in fertility and partly by net out-migration. Kerala has been a net out-migration State from the 1930s, and the rate of net out-migration reached its peak between 1981-91.

With regard to regional variations, the size of the population was the highest in Malappuram district (36.3 lakh) followed by Thiruvanthapuram (32.35 lakh), as per the 2001 Census (Table 2.2 and Map 2.1). The lowest population size was seen in Wayanad district (7.87 lakh) followed by Idukki district (11.29 lakh). It is to be noted that these two districts are situated in the hilly regions (upper land) of Kerala. Malappuram district is not only the highest with respect to population size, but has also experienced rapid population growth among all districts in Kerala. However, the decadal population growth rate during 1981-1991 in this district at 28.9 per cent, declined significantly to 17.2 per cent during 1991-2001. At the other end of the spectrum, Pathanamthitta district recorded the lowest growth rate, that is a decadal growth rate of 3.7 per cent during 1991-2001. It may be noted that the first six districts in Table 2.2, Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Kottayam and Idukki, broadly correspond to the erstwhile Travancore region; Ernakulam and Trichur to Cochin and the last six districts, Palakkad, Malappuram, Kozhikode, Wayanad, Kannur, and Kasargod to the Malabar region. This would be of

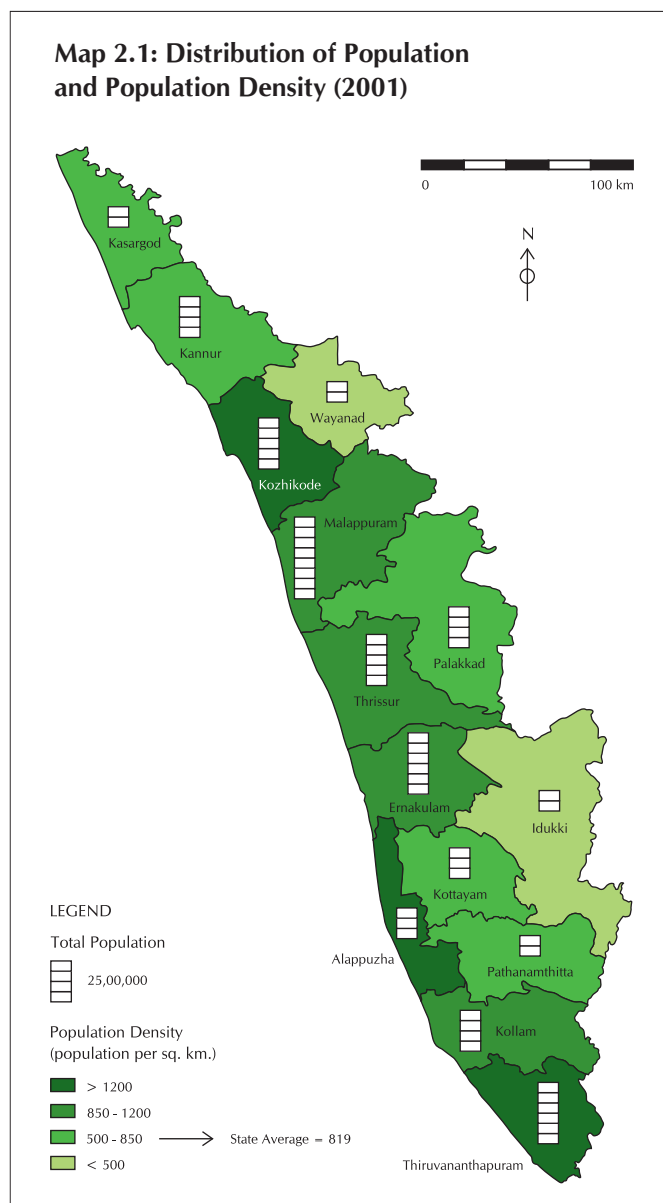


Table 2.1: Population Growth Rate, Sex Ratio and Density of Population in Kerala and India

Year	Annual Growth Rate (per cent)		Sex Ratio (females per 1,000 males)		Density (per sq. km.)	
	Kerala	India	Kerala	India	Kerala	India
1961	---	---	1,022	941	435	142
1971	2.33	2.22	1,016	930	549	177
1981	1.76	2.26	1,032	934	654	216
1991	1.31	2.13	1,036	927	749	274
2001	0.93	1.95	1,058	933	819	324

Source: Various Census Reports

Table 2.2: Population, Growth Rates and Density of Population by Districts

Districts	Area (sq. km.)	Population (in lakh)		Share of Population 2001	Decadal Growth Rate (%)		Density (per sq. km.)	
		1991	2001*		1981-1991	1991-2001	1991	2001
Thiruvananthapuram	2,192	29.47	32.35	10.2	13.5	9.8	1,344	1,476
Kollam	2,491	24.08	25.84	8.1	10.7	7.3	967	1,038
Pathanamthitta	2,642	11.88	12.32	3.9	5.6	3.7	450	574
Alappuzha	1,414	20.01	21.05	6.6	7.3	5.2	1,415	1,496
Kottayam	2,203	18.28	19.53	6.1	7.7	6.8	830	722
Idukki	5,019	10.78	11.29	3.6	11.2	7.0	215	252
Ernakulam	2,407	28.17	30.98	9.7	11.1	9.1	1,170	1,050
Thrissur	3,032	27.37	29.75	9.3	12.2	8.7	903	981
Palakkad	4,480	23.82	26.17	8.2	16.5	9.9	532	584
Malappuram	3,550	30.96	36.30	11.4	28.9	17.2	872	1,022
Kozhikode	2,344	26.20	28.78	9.0	16.7	9.9	1,118	1,228
Wayanad	2,131	6.72	7.87	2.5	21.3	17.0	315	369
Kannur	2,966	22.52	24.12	7.6	16.6	7.1	759	813
Kasaragod	1,992	10.72	12.03	3.8	22.8	12.3	538	604
Kerala	38,863	290.99	318.39	100.0	14.3	9.4	749	819
Coefficient of Variation (%)	34.2	36.7	37.9	37.9	43.6	40.5	43.87	42.04

Source: Kerala Economy 2003, DES, Thiruvananthapuram. *Provisional population total.

interest in our understanding of the 'catching up' process of Malabar with Travancore and Cochin in the post-State formation period. The population pressure with respect to land is the highest in Alappuzha followed by Thiruvananthapuram district as per the 2001 Census. The lowest population density is in Idukki followed by Wayanad.

2.2 Sex Ratio

For long, the overall sex ratio in Kerala has been favourable to females and has been the most widely discussed indicator of women's status (Sen, 1999). It was 102 females per 100 males in 1961 and increased to 106 in 2001. This is in sharp contrast to India's 93 females per 100 males in 2001. Further, the overall sex ratio is favourable to females in all the districts in Kerala; the highest being observed in Pathanamthitta, Thrissur and Kannur (109 females per 100 males) districts and the lowest in the Idukki, Wayanad and Ernakulam districts.

What has caused serious concern recently is the masculinisation of juvenile sex ratios (JSRs) in Kerala during the decade 1981-91 (as for the country as a whole), which has become a controversial issue and raised the question whether excess female child

mortality has suddenly appeared in the State. Some scholars examining district level data on juvenile and infant sex ratios (male to female) during this decade find a sharper rise in JSRs in more than half the districts in Kerala even while it was marginal at the aggregate level (Rajan et al, 2000). It is known that understanding changes in the sex ratio between two censuses is very complex due to the difficulties involved in decomposing the factors accounting for it (Bhat, 2002).

If we assume, as is generally done in demography, that the sex ratio at birth is 95 female births per 100 male births based on which assumption, the child sex ratio will be normally higher than this level due to the biological nature of lower mortality among females than males, then we find that by 2001, the child sex ratios had improved in almost all districts in Kerala (Table 2.3), except for Palakkad, Kannur and Kozhikode. However, even in these three districts, child sex ratio (96 girls per 100 boys) is higher than the assumed sex ratio at birth of 95. It is also interesting to note that for none of the districts is the child sex ratio below that of sex ratio at birth. This Report feels that the data for 2001 has muted the controversy. However, it is a matter of importance to assess the claim of a worsening gender imbalance in Kerala, which is gaining increasing currency.

Table 2.3: Overall Sex Ratio and Child Sex Ratio by Districts

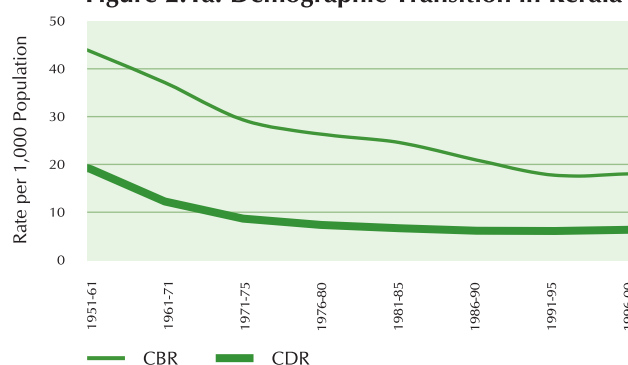
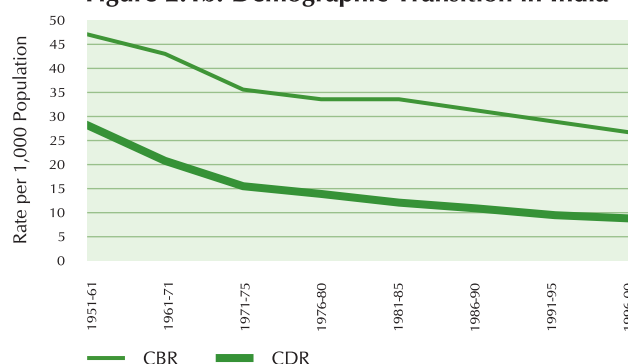
District/State	Sex Ratio (F/M)		Child Sex Ratio (F/M)	
	1991	2001	1991	2001
Thiruvananthapuram	103.6	105.8	96.2	96.2
Kollam	103.5	107.0	93.5	96.2
Pathanamthitta	106.2	109.4	95.2	97.1
Alappuzha	105.1	107.9	94.3	96.2
Kottayam	100.3	102.5	90.1	97.1
Idukki	97.50	99.90	94.3	97.1
Ernakulam	100.0	101.7	95.2	95.2
Thrissur	108.5	109.2	94.3	96.2
Palakkad	106.1	106.8	98.0	97.1
Malappuram	105.3	106.3	95.2	96.2
Kozhikode	102.7	105.8	97.1	96.2
Wayanad	96.60	100.0	95.2	96.2
Kannur	104.9	109.0	97.1	96.2
Kasaragod	102.6	104.7	91.7	96.2
Kerala	103.6	105.8	95.2	96.2

Source: Census Reports, 1991 and 2001.

2.3 Demographic Transition

Kerala made a remarkable achievement in the demographic transition within a short period of time. The crude birth rate (CBR) was 44 per 1,000 population in 1951-61 and declined to 18 per 1,000 population in 1995-2000, a decline of around 60 per cent. Similarly, the crude death rate (CDR) was 20 per 1,000 population in 1951-61, which declined to around 6 per 1,000 population in 1995-2000. India's crude birth rate (47) was just 3 points above Kerala's CBR in 1951-61 and declined to only 27 in 1995-2000. The crude death rate declined from 28 to 9 between these two periods. In both Kerala and India, the birth rate and the death rate declined rapidly until 1971-75. However, for Kerala, as the death rate remained stable during the 1980s and 1990s and the birth rate continued to decline, the rate of natural increase of the population also declined. The contrasting nature of demographic transition between Kerala and India can be seen from Figures 2.1a and 2.1b.

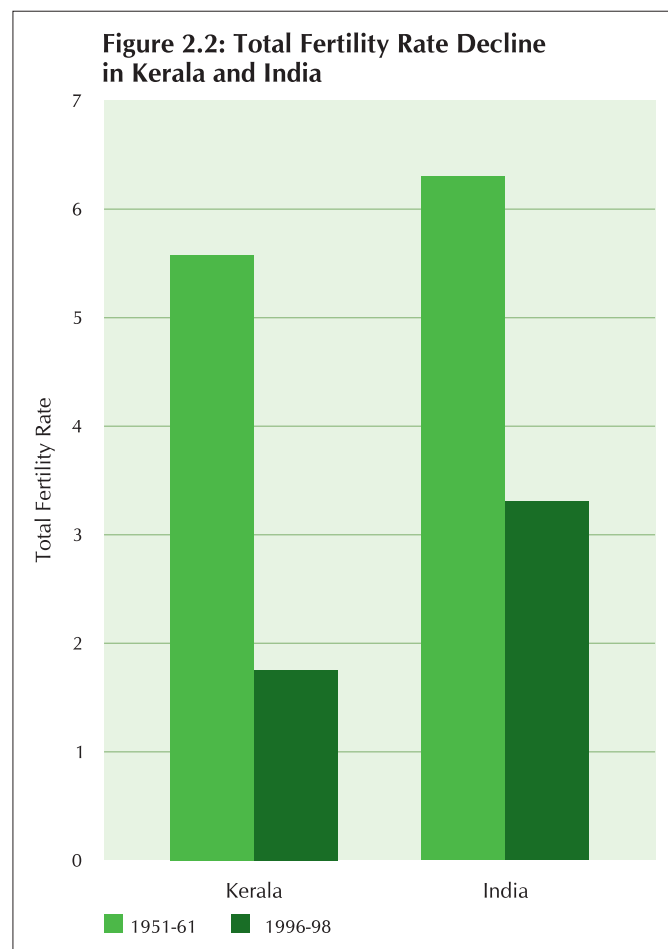
With regard to total fertility rate in Kerala, we find that it started declining from the 1960s. The total fertility rate (TFR),² which was 5.6 per woman in the 1950s, declined to 3.7 in the 1970s, and reached 1.8, which is

Figure 2.1a: Demographic Transition in Kerala**Figure 2.1b: Demographic Transition in India**

Source: Bhat and Rajan, 1990 and Sample Registration System, various issues.

² TFR is defined as the number of children born to a woman if she follows the current fertility pattern in her reproductive life, and is a useful standardised indicator for assessing fertility trends.

below the replacement level, in the 1990s. The fertility rate declined in both rural and urban areas, and there is virtually no difference between the two. By contrast, in India, the TFR was 6.3 in the 1950s and declined to 3.3 in the 1990s. Though Kerala and India had a difference of only 0.7 children during the 1950s, the difference has widened to 1.5 children in the 1990s, indicating a faster decline in Kerala than in India as a whole. As Kerala's TFR approached the replacement level (i.e. 2.1 children per woman), the rate of decline naturally slowed down from the late 1980s. Among the major Indian States, Tamil Nadu had the next lowest TFR of 2.0 children per woman in 1996-98. It is generally agreed that one of the most important factors behind Kerala's remarkable performance in reducing fertility is the high level of female education (Zachariah et al, 1994; Bhat and Rajan, 1990).



Source: Bhat and Rajan, 1990 and Sample Registration System.

In the absence of reliable estimates of fertility indicators at the district level, some attempt has been made to provide such estimates using indirect estimation techniques from the Census data. Table 2.4 shows

Table 2.4: Crude Birth Rate and Total Fertility Rate by Districts, 2001

Districts	Crude Birth Rate	Total Fertility Rate
Thiruvananthapuram	16.4	1.6
Kollam	16.2	1.6
Pathanamthitta	14.5	1.5
Alappuzha	15.2	1.5
Kottayam	15.6	1.6
Idukki	17.0	1.6
Ernakulam	15.7	1.5
Thrissur	16.1	1.6
Palakkad	17.3	1.8
Malappuram	22.4	2.4
Kozhikode	17.4	1.7
Wayanad	19.5	2.0
Kannur	16.6	1.7
Kasaragod	18.9	1.9
Kerala	17.1	1.7
Coefficient of Variation (%)	12.0	14.4

Source: Guilmoto and Rajan (2002).

the CBR and TFR for districts in Kerala. Malappuram seems to be an outlier with the highest fertility followed by Wayanad. Against this, the lowest fertility was observed in the districts of Pathanamthitta, Alappuzha and Ernakulam. The northern region has still to catch up in terms of fertility decline.

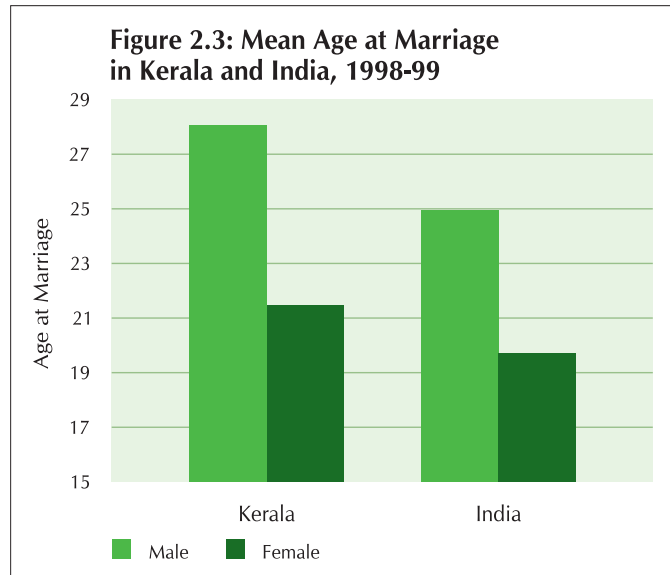
2.4 Age at Marriage

The age at marriage is a proximate determinant of fertility change. Among the major States in India, the age at marriage is highest in Kerala for both males and females. According to an estimate from the Reproductive and Child Health Survey (1998-99), the mean age at marriage in Kerala for males is 28.7 years and for females 22.7 years. In the case of all-India, it is 24.9 and 19.7 years for males and females, respectively. In 1901, the mean age at marriage was 23 years for males and 17 years for females in Kerala. Part of the decline in fertility in Kerala could have been contributed by the rise in the mean age at marriage. The mean age at marriage does not seem to vary among the districts in Kerala. Nevertheless, in Malappuram, where fertility was the highest, the mean age at marriage for both males and females was the lowest. It is also important to note that the largest proportion of girls married at the age of below 18 years (36 per cent) was in Malappuram district (Table 2.5).

Table 2.5: Marriage Indicators by Districts

Districts	Married Below Legal Age at Marriage (%), 1998-99		Mean Age at Marriage	
	Boys (<21 yrs)	Girls (<18 yrs)	Male	Female
Thiruvananthapuram	2.7	2.9	28.0	22.6
Kollam	2.9	2.3	28.2	22.2
Pathanamthitta	0	0.0	27.6	23.2
Alappuzha	1.7	0.0	28.1	22.9
Kottayam	2.4	0.0	28.2	24.4
Idukki	4.2	1.5	25.8	23.0
Ernakulam	0.6	0.0	28.5	23.7
Thrissur	1.9	2.0	29.1	22.4
Palakkad	1.3	10.3	27.3	20.9
Malappuram	9.2	35.7	24.7	18.7
Kozhikode	2.2	13.6	26.7	20.6
Wayanad	9	8.4	25.6	20.5
Kannur	0	19.0	28.4	20.8
Kasaragod	1.6	18.0	27.6	20.6
Kerala	2.7	9.1	28.7	22.7
Coefficient of Variation (%)	97.9	123.9	4.45	6.9

Source: RCH Survey, 1998-99.



Source: National Family Health Survey, 1998-99.

2.5 Longevity

The general health status of the population can be understood from the level of life expectancy at birth, one of the aspects of human development included in the HDI. Life expectancy at birth in Kerala was 70.4 years for males and 75.9 years for females in 1993-97. During the same period, India's life expectancy at birth was 60.4 years for males and 61.8

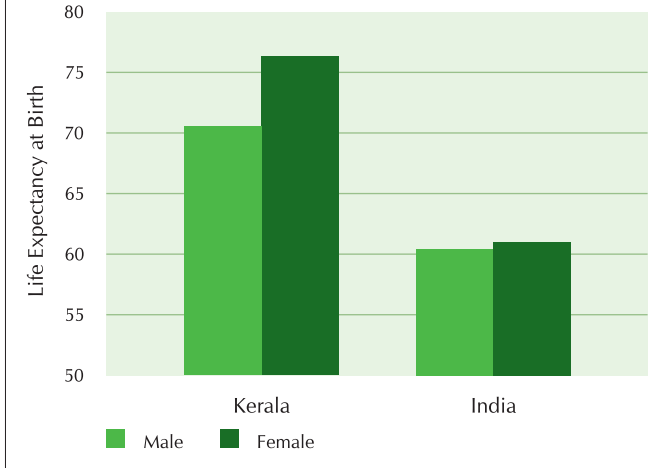
years for females. Punjab, which is in the second position, has a life expectancy at birth of 66.7 years for males and 68.8 years for females.

The life expectancy at birth of Kerala males increased from 44.3 years in 1956 to 70.4 years in 1995, an increase of 26.1 years in a span of 40 years. For females, it increased even more – from 45.3 years to 75.9 years, an increase of 30.6 years. During the same period, India's life expectancy at birth for males increased by 24.9 years (from 35.5 to 60.4 years) and for females by 26.1 years (from 35.7 to 61.8 years). India is 25 years behind Kerala in terms of the achievement of life expectancy at birth.

Because of natural advantage, women live longer than men if they receive comparable care. In the case of Kerala, over time the realised levels seem to have come closer to this potential relative advantage. For instance, women who were to live only a year longer than men in the 1950s are expected to live 5.5 years longer in the 1990s, whereas in all of India, women are expected to live only 1.2 years longer than men (Figure 2.4).

High life expectancy at birth in Kerala has been largely due to low infant and child mortality, particularly for males. This is revealed by the life expectancy at age 5. In fact, a male child in Kerala, once he survives his fifth year, has

Figure 2.4: Gender Gap in Life Expectancy at Birth, Kerala and India, 1993-97



Source: Sample Registration System.

Box 2.1: Improvement in Life Expectancy at Birth

The ranking of the States in terms of life expectancy at birth has always put Kerala on top. However, in terms of absolute improvement in life expectancy at birth between 1970 and the 1990s, Kerala ranked in the 9th position among the States in India. It can be argued that as the level of achievement rises, it becomes more and more difficult to make further improvements. In order to incorporate this, an achievement index was constructed using a concave function. The difference in the achievement index at two points of time will give an improvement index, which will correct for the differential initial levels. The improvement index, which incorporates the idea that it is more difficult to improve from a higher level than from a lower level, places both Kerala and Tamil Nadu in the first positions followed by Andhra Pradesh. It indicates that Kerala has not only had a better achievement level in any given year but also had impressive performance over the years in making further improvements. Punjab, which is ranked second in terms of achievement, slides down to the eighth in terms of the improvement index (for details, see HDR background paper by Navaneetham, 2005).

the same chances of survival as the one in Punjab, who has survived up to the same age. In the case of females, the difference between life expectancies in Kerala and Punjab narrows down from 7.1 years at birth to only 2 years at

age 5.³ This indicates that the remarkable achievement in reducing child mortality in Kerala has not been realised to the same extent in the population above age 5.

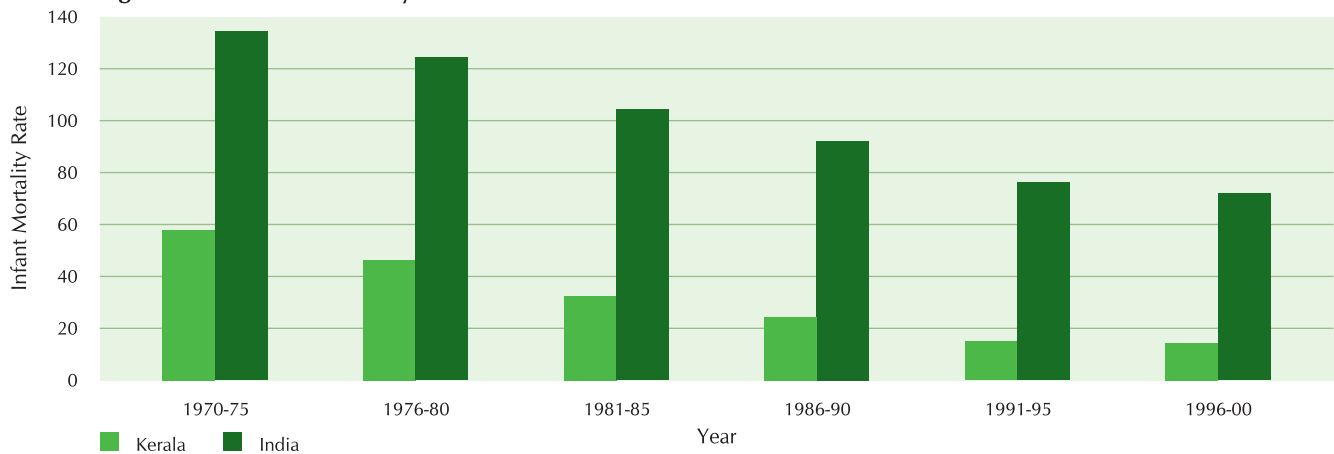
A notable feature of Kerala's human development experience is the absence of the rural-urban gap. In the 1990s, the difference in life expectancy at birth between rural and urban Kerala was almost negligible in the case of males and very visible only during one year in the case of females. At the all-India level, however, the difference was 7.4 years for males and 8 years for females. For explanation, one has to take into consideration Kerala's unique pattern of urbanisation. The spatial disparity covering district variation in life expectancy at birth is discussed in Chapter 4.

2.6 Infant Mortality

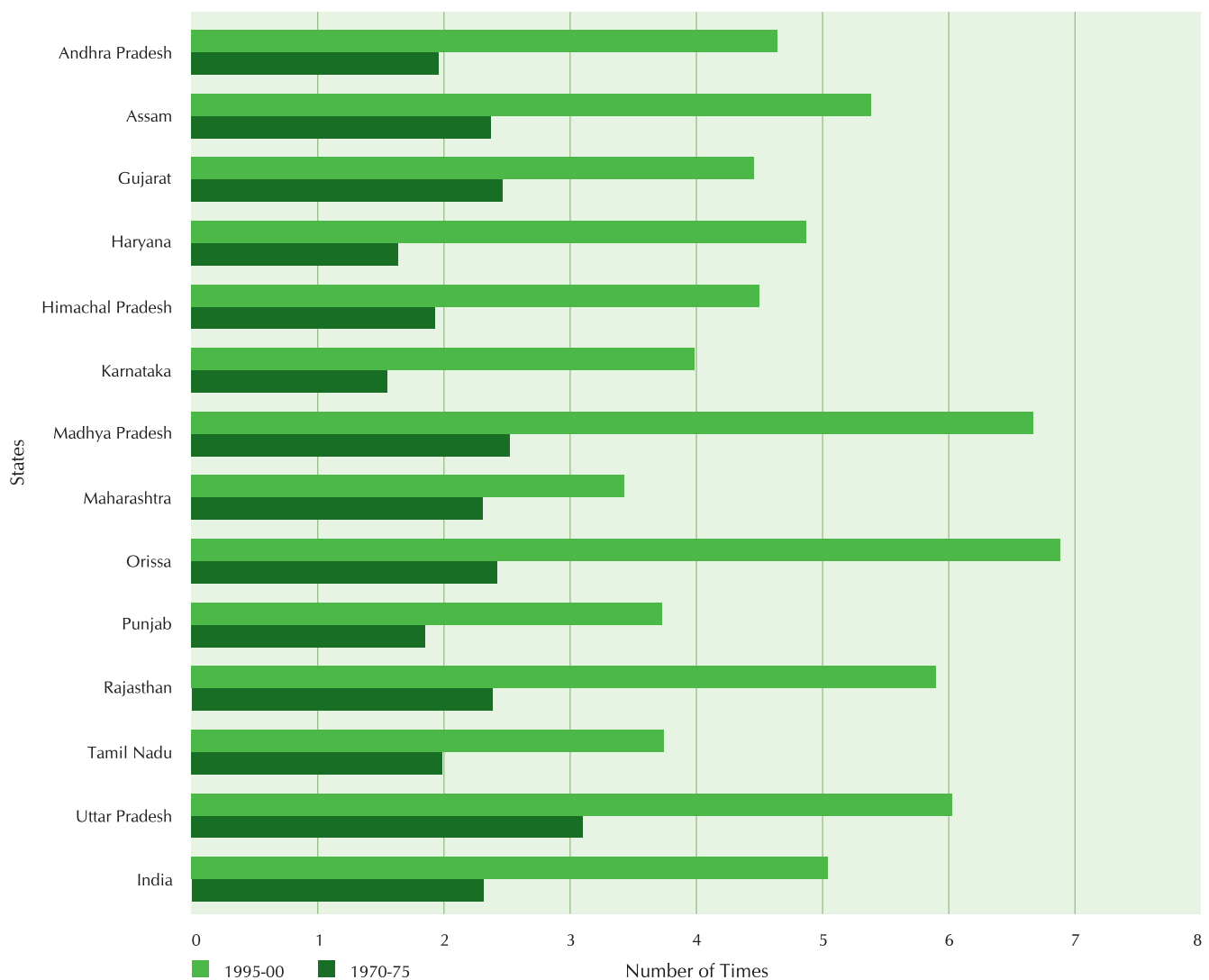
A significant role in the dramatic decline in fertility in Kerala in the 1970s was played by the sharp decline in infant mortality rates. Among the major Indian States, Kerala's infant mortality rate is the lowest as per the latest available estimates given by Sample Registration System (SRS), 2000. In Kerala, out of every 1,000 children born, only 14 die before attaining their first birthday, whereas in India as a whole, it is 71. Maharashtra has an estimated 48 infant deaths per 1,000 live births, which is the second lowest among Indian States. Kerala has performed remarkably in reducing the infant mortality rate from 120 in the 1950s to 14 in 2000. For India as a whole, it has declined from 139 to 71 during the same period. The difference in IMR was only 19 points between Kerala and India in the 1950s, which widened to 78 in 1976-80, but came down to 57 in 1996-2000 (Figure 2.5). Since Kerala has already achieved a lower level of IMR, further decline is expected to be slower due to the non-linear nature of the relationship between the level and improvement that we discussed earlier (Box 2.1).

The gap between Kerala and the rest of the States has also increased over time. Figure 2.6 shows the comparative picture of Kerala's IMR *vis-à-vis* other States between 1970-75 and 1996-2000. The gap in relation to Kerala has increased in all other Indian States. The figure indicates that children born during the 1990s in States like Madhya Pradesh, Uttar Pradesh, Rajasthan and Orissa faced a risk of death before their first birthday that was more than six times as those faced by children born in Kerala. Even in Maharashtra, the second best performer in terms of IMR, the risk is more than three times as much as that in Kerala.

³ The life expectancy at birth for males in Kerala is 70.4 years and for Punjab is 66.7 years. However, the life expectancy at age 5 is almost same, that is, 66.8 years for Kerala and 66.2 years for Punjab. In the case of females, the life expectancy at birth for Kerala is 75.9 years and for Punjab is 68.8 years. The life expectancy at age 5 is 72.1 years for Kerala and 70.0 years for Punjab.

Figure 2.5: Infant Mortality Rate Decline in Kerala and India

Source: Sample Registration System, various issues.

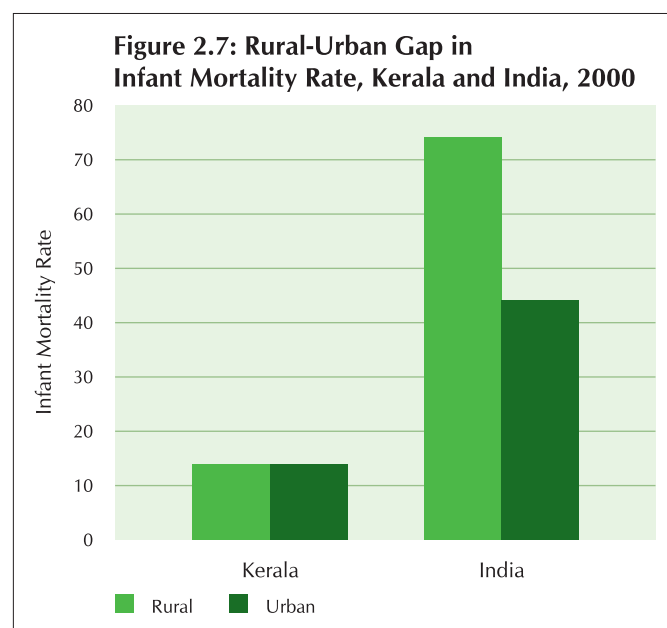
Figure 2.6: Infant Mortality Gap in Indian States, 1970-75 and 1995-2000 (Compared to Kerala)

Source: Sample Registration System.

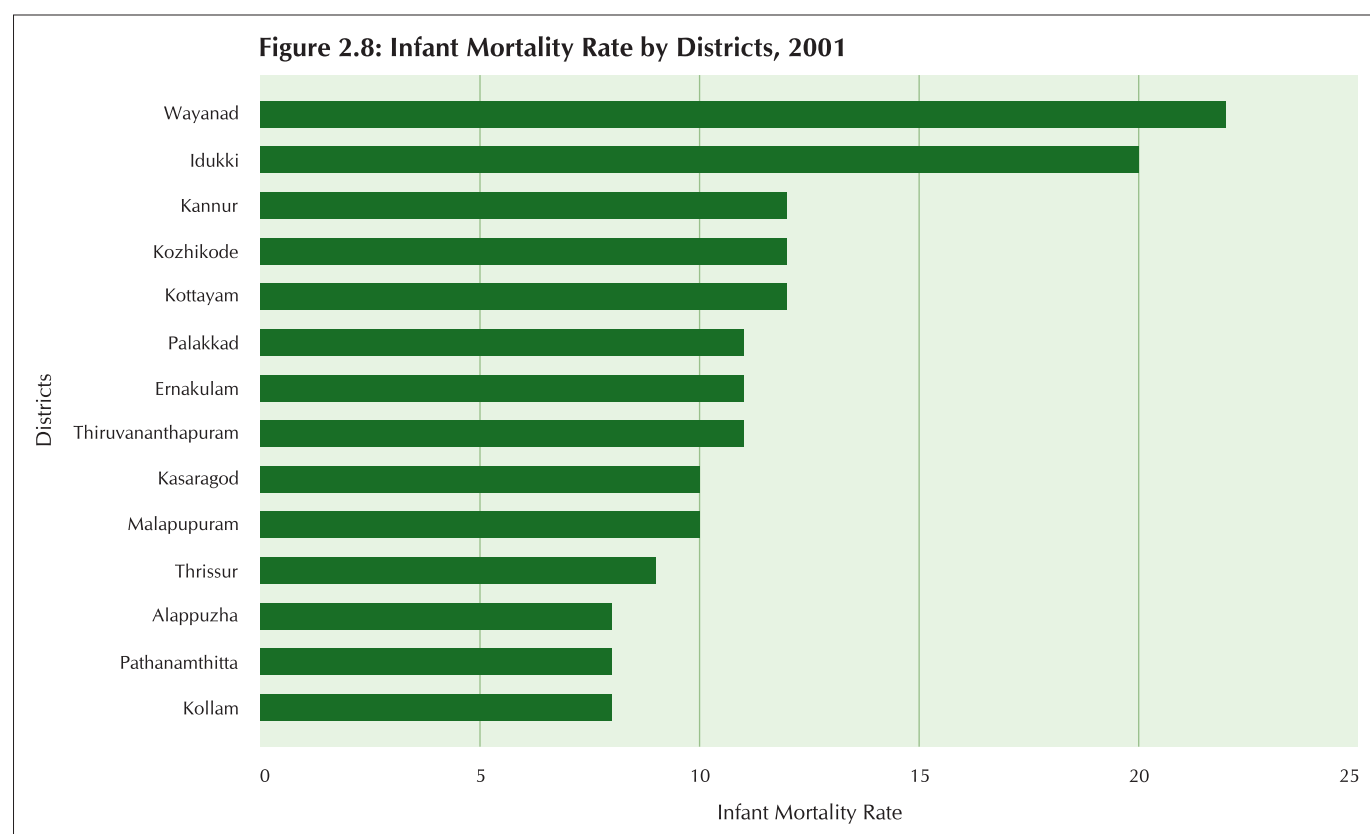
The decline in IMR in Kerala almost ceased by the 1990s. For several years, IMR has remained around 14-15 per 1,000 live births, with virtually no change. Early neonatal (under one-week) deaths contribute around 65 per cent; and late neonatal mortality shares around 10 per cent of the infant deaths under one year. Biological factors and health care use during pregnancy are likely to influence early neonatal mortality and therefore, further reduction in IMR may be possible by identifying those factors and making specific interventions during pregnancy. Further, infant mortality seems to be still higher among children born in the households of SC/STs, fishing community and the poor. The National Family Health Survey II (1998-99) indicates that in Kerala, children born in households with a low standard of living (of whom large numbers would be from the above mentioned groups) are 1.6 times more likely to die than children born in the households with higher standard of living. Further decline in overall IMR will crucially depend on how these groups catch up with others.

A remarkable achievement is that like life expectancy at birth, infant mortality rates too show almost no difference between rural and urban areas in Kerala. In 2000, they

were just equal while in the case of India as a whole, a large gap exists – 74 in rural and 44 in urban areas (Figure 2.7). The absence of the rural-urban gap in Kerala is due to widespread infrastructure and health care facilities in the rural areas as well.



Source: Sample Registration System.



Source: Estimated; see Technical Note in this Report for details.

Figure 2.8 shows the infant mortality rate across districts in Kerala.⁴ The variability in infant mortality rate is low in Kerala, if we exclude the two outlier districts of Wayanad and Idukki. In the districts of Wayanad and Idukki, 1 in 50 newborn babies dies before reaching the first birthday, whereas in most of the other districts 1 in 100 dies. The estimated infant mortality rate is lowest in the districts of Pathnamthitta, Kollam and Alappuzha.

2.7 Maternal Health Care and Child Immunisation

Some of the favourable outcomes discussed above are primarily dependent on the utilisation of maternal health care services, which is the highest in Kerala among all Indian States due to better availability and accessibility of such services (Navaneetham and Dharmalingam, 2002). For instance, antenatal check up is almost universal (99 per cent) in Kerala as compared to India (65 per cent), as per NFHS-II (1998-99). However, the use of full antenatal services (at least three ANC visits and at least one TT taken and IFA tablets taken during pregnancy) in Kerala is 86 per cent. Although there was little variation across districts, the use of full antenatal services is below the State average in the districts

of Thiruvananthapuram (71.8 per cent), Kasaragod (75.4 per cent), Malappuram (78.8 per cent), Idukki (82.1 per cent) and Pathanamthitta (84.8 per cent). Nevertheless, almost all deliveries (97 per cent) took place at the medical institutions in Kerala, except in Malappuram district (88 per cent). Among these, 59 per cent of the deliveries were in private and only 38 per cent were in public medical institutions. This raises the question about the cost involved in delivery care and the likely impact of this economically on the family in the absence of regulatory mechanisms in private hospitals.

Like use of maternal health care services, the coverage of complete child immunisation (child given BCG, three doses of DPT, three doses of polio and measles vaccines) is the highest in Kerala (84 per cent). However, the coverage of complete immunisation is the lowest in Malappuram district (60 per cent) followed by Palakkad (75 per cent). These districts need special attention in providing preventive care services.

It goes without saying that in addition to increased availability that helps people's access to health care facilities, it has been the increasing levels of awareness that has led to better utilisation of these services. This increasing

Table 2.6: Use of Maternal Health Care Services by Districts

District	Full ANC (%)	Institutional Deliveries (%)		
		All	Public	Private
Thiruvananthapuram	71.8	99.5	67.3	32.6
Kollam	90.2	99.0	48.3	51.6
Pathanamthitta	84.8	99.4	27.5	72.4
Alappuzha	93.1	100.0	54.4	45.5
Kottayam	91.9	99.4	40.7	59.2
Idukki	82.1	93.3	25.4	74.5
Ernakulam	89.6	99.4	29.1	70.8
Thrissur	89.3	99.2	28.5	71.4
Palakkad	86.2	93.4	30.6	69.3
Malappuram	78.8	88.0	31.4	68.5
Kozhikode	93.1	98.9	54.3	45.6
Wayanad	90.4	97.7	54.2	45.7
Kannur	90.2	98.4	35.9	64.0
Kasaragod	75.4	96.7	11.1	88.8
Kerala	86.1	97.0	38.0	58.9
Coefficient of Variation (%)	7.6	3.4	38.2	23.9

Source: Reproductive and Child Health Project, Rapid Household Survey, 1998-99, ISEC, Bangalore, IIPS, Mumbai, 2001.

Note: Full ANC = At least 3 ANC visits+ at least one TT+ IFA given.

⁴ See Technical Note at the end of the Report for estimation procedure.

Table 2.7: Coverage of Child Immunisation and Low Birth Weight Babies by Districts, 1998-99

Districts	Immunisation (%)					Low Birth Weight (%)
	BCG	3 Doses of DPT	3 Doses of Polio	Measles	Complete Immunisation	
Thiruvananthapuram	99.3	90.8	94.3	85.9	81.6	11
Kollam	99.4	95.9	95.9	93.5	90.6	12
Pathanamthitta	100.0	97.1	96.4	97.1	91.4	18
Alappuzha	100.0	98.6	98.6	99.3	97.4	12
Kottayam	99.2	91.0	88.8	90.3	79.1	18
Idukki	98.3	96.7	95.7	92.4	90.8	15
Ernakulam	100.0	98.0	96.7	95.4	93.4	18
Thrissur	99.0	96.0	94.0	93.5	90.5	13
Palakkad	95.1	85.8	82.9	85.3	75.1	16
Malappuram	87.7	72.9	76.4	65.5	59.8	17
Kozhikode	98.4	96.4	93.9	94.9	90.9	17
Wayanad	97.6	90.5	90.5	85.5	82.3	30
Kannur	97.5	91.3	90.9	87.6	84.7	15
Kasaragod	97.9	94.1	93.2	90.3	87.4	15
Kerala	97.3	91.4	91.3	88.6	84.0	16.0
Coefficient of Variation (%)	3.1	7.0	6.2	8.9	10.7	27.8

Source: Reproductive and Child Health Survey, 1998-99.

Note: Complete Immunisation = BCG + 3 doses of DPT + 3 doses of polio drops + measles.

awareness, in turn, perhaps owes to the disappearance of disparities in literacy in the wake of a series of adult and non-formal education activities, culminating in the Total Literacy Programme (1989-91), which sought to address the problem of 'residual literacy' in the districts.

Marring these achievements are some emerging areas of concern that appear to be contradictions in human development in the State and which also need to be noted.

2.8 Morbidity

While Kerala had been hailed for its very low levels of mortality, the National Sample Survey conducted in 1973-74 reported a startling finding that Kerala's morbidity was one of the highest in India, 71 per 1,000 persons in the case of acute illness and 83 per 1,000 persons in the case of chronic illness. Subsequently, surveys conducted by KSSP (Kannan et al, 1990; Kunhikannan and Aravindan, 2000), National Council of Applied Economic Research in 1992-93 at the all-India level and the 52nd round of NSS data collected during 1995-96 confirmed high levels of acute and chronic morbidity in Kerala. All these estimates were based on surveys of illnesses as perceived by the respondents.

Although the different sources threw up substantially different rates of morbidity, they all indicated that Kerala had the highest rates of morbidity among the major Indian States. This led to an interesting debate on whether the reported high rates of morbidity were 'real' or due to better reporting given the higher levels of education and awareness among the people about health care services. However, the KSSP study of 1987 based on a survey of 10,000 households argued that Kerala's high morbidity was to a large extent real due to two reasons: First, infections constitute a large share of morbidity, which can hardly be attributed to perception alone. Second, poor people reported more illness than the rich, which also goes against the argument that the perception factor is the major contributor of high reported morbidity in the State (Kannan et al, 1990).

It is difficult to refute the observation that the reported prevalence rates of some acute illnesses like asthma and tuberculosis seem to be higher in Kerala than in many other States. For example, according to NFHS II (1998-99), the prevalence rate of tuberculosis is 5 per 1,000 population in Kerala, which is significantly higher than many other States such as Tamil Nadu, Karnataka, Maharashtra, Rajasthan, Punjab and Haryana. The KSSP

survey conducted in 1996 also finds that the rate of prevalence of tuberculosis is 4 per 1,000 persons, and reported morbidity due to asthma is 48 per 1,000, which is the highest among major Indian States. The number of acute respiratory infection cases is also reported to be the highest in Kerala – 163 per 1,000 persons – whereas the all-India average is only 16. The incidence and prevalence of malaria and jaundice in Kerala, however, is the lowest.

However, although Kerala shows a high tuberculosis morbidity rate, the case fatality rate is low in Kerala, compared to other States – 5 per 1,000 cases for Kerala as against 9 for all-India, which suggests better care facilities and greater use of those facilities. The highest case fatality rate was reported in West Bengal (25) followed by Himachal Pradesh (18) and Karnataka (14).

In the more recent period, lifestyle related disease is on the rise in Kerala, as it has entered the fourth stage of health transition. A study conducted by Health Action by People, Thiruvananthapuram reveals that the prevalence of risk factors is highest for hypertension, diabetes and coronary heart diseases (HAP 2002-03).⁵ The rise in lifestyle diseases in Kerala may have implications on the burden of treatment, as the cost involved for these treatments is significantly high. It is also surprising to note the reporting of certain communicable diseases among the vaccine prevented childhood diseases, like measles. This seems to indicate that the success of immunisation against measles is incomplete in Kerala (John et al, 2004). Also, the most frequently reported diseases as monitored by disease surveillance in a district in southern Kerala were leptospirosis, acute dysentery, typhoid fever and acute hepatitis.

Another area of concern is the growing level of alcohol consumption in Kerala, which is highest among States in per capita terms. The cause for worry is the spread of consumption among the younger age groups and its implications for health, domestic harmony and increasing road accidents (Box 2.2).

The high morbidity in Kerala will continue to attract more studies, as it constitutes an emerging health issue. From a human development point of view, it should invite the attention of all concerned, especially policy-makers, because it throws up important questions with respect to quality and affordability of health care.

It also needs to be noted that while on the one hand, the State scores very high in terms of physical health achievements (notwithstanding high levels of morbidity), on the other, increasing mental ill health is drawing considerable attention (Box 2.3). Kerala has one of the highest suicide rates in the country, manifesting extreme mental distress, 30 per lakh population in 2002 (up from 17 per lakh population in the 1970s), compared to 11 per lakh population all-India, i.e. almost three times the national average. Within the State, Idukki, Wayanad and Kollam have the highest rates of male and female suicides, almost one-and-a-half times the State average (Table 2.8). It is interesting to note that some attempts to understand why Kerala has the highest suicide rates explain it in terms of her unique achievements in literacy – high proportion of matriculate work seekers with higher career expectations which are not fulfilled, creating a mismatch between levels of education and types of jobs available, causing frustration and extreme distress (Halliburton, 1998). While for men, it appears to work

Box 2.2: Alcohol Consumption

Between 15 and 20 per cent of Indian people consume alcohol and, over the past 20 years, the number of drinkers has increased from one in 300 to one in 20. The per capita consumption of alcohol for India is 4 litres. Kerala stands first in per capita consumption of liquor at 8.3 litres, followed by Punjab 7.9 litres. Fifteen per cent of the population consumes alcohol. Over the years, the age at which youngsters begin to consume liquor has come down in Kerala. In 1986 the age was 19, by 1990 it had dropped to 17, and by 1994, the age was 14. Most drinkers are in the 21 to 40 age group, the same group where the maximum number of suicides also takes place. A study conducted by the Alcohol & Drug Information Centre (ADIC)- India revealed that around 40 per cent of road accidents occurred because the driver was under the influence of alcohol. In the case of accidents on national highways, more than 72 per cent were related to drunken driving. Domestic violence is also on the increase due to high alcohol consumption. Alcohol related diseases are growing leading to high occupancy of hospital beds in hospitals.

Source: Global Alcohol Policy Alliance, <http://www.ias.org.uk>

⁵ From the survey conducted by the Health Action for People in 2002-03.

Box 2.3: The Extent of Problem of Mental Health

Population of Kerala (2001 Census)	3,18,38,619
Prevalence of Psychiatry Disorders (58/1000 Population)	18,46,640
Prevalence of Severe Psychiatric Disorders (10-20/1000 Population)	3,18,386 - 6,36,772
Neurosis and Psychosomatic Disorders (20-30/1000 Population)	6,36,772 - 9,55,159
Mental Retardation (0-1% of all children up to 6 years)	18,267 - 36,535
Psychiatric Disorders in Children (1-2% of all children up to 6 years)	36,535 - 73,071

Source: <http://www.ksmha.org/kerala.htm>

through their need to procure a suitable job, for women, the culturally prescribed codes of conduct and roles they are expected to assume after marriage appear to be the proximate cause. However, the higher rates in Idukki and Wayanad, certainly not the most literate districts, remain unexplained. Needless to state, this is an area drawing serious concern and needs further research. In recent years, there has also been a spurt in 'family suicides', which has attracted tremendous publicity. Journalistic reports suggest that a major cause of family suicides is financial bankruptcy.

2.9 Nutrition

The findings on this aspect are somewhat mixed. Among the States in India, nutritional input levels in Kerala are low while it presents a relatively good nutritional outcome.

The 55th round of National Sample Survey, conducted in 1999-00, observes that in both rural and urban Kerala, the intake of calories is one of the lowest among the major States in India. The per capita calorie intake per day in Kerala is 1982 kcal in rural areas, which is 22 per cent below the norm, and 1995 kcal in urban areas.⁶

The National Family Health Survey (NFHS) gives rich information on the nutritional outcome indicators of women and children. In Kerala, 27 per cent of children under three years of age are undernourished, according to the weight-for-age measure in 1998-99. For India, the corresponding figure is 47 per cent. With respect to height-for-age, 22 per cent of children under three years of age are stunted in Kerala, the all-India figure being 46 per cent (Appendix Table A2.1). Despite the low level of calorie intake in Kerala, the nutritional outcomes in terms of anthropometric indicators are better than for most other States. In the case of women, the NFHS II (1998-99) indicates that about 19 per cent of the women in Kerala are undernourished in terms of BMI (i.e. BMI below 18.5 kg/m²), whereas in India, it is 36 per cent. Kerala attains the second highest position among major Indian States in terms of this indicator of nutritional achievement among women, following Punjab. However, for both Kerala and Punjab, a high prevalence of obesity is reported. The per cent of women with obesity is 21 (BMI of 25 kg/m² or more) in Kerala, which is the second highest after Punjab's 30 per cent. But the national average is only 11 per cent. Other studies have also highlighted the growing problem of obesity among women in Kerala, which is not a good indicator of physical health.⁷

The apparent paradox of low average nutritional intake leading to high nutritional outcome in aggregate can perhaps be explained to some extent in terms of the remarkable reach of the public distribution system in

Table 2.8: District-wise Suicide Rate

District/State	1995	2003
Thiruvananthapuram	17.2	33.4
Kollam	32.0	43.6
Pathanamthitta	23.5	32.9
Alappuzha	19.9	25.3
Kottayam	23.5	26.3
Idukki	48.6	51.7
Ernakulam	26.0	24.4
Thrissur	37.5	34.3
Palakkad	32.3	33.6
Malappuram	12.0	13.3
Kozhikode	22.0	23.3
Wayanad	44.4	46.7
Kannur	44.4	46.7
Kasaragod	24.8	24.0
Kerala	28.0	32.8

Source: State Crime Record Bureau, various issues.

⁶ However, the trends in calorie and protein intake over time have been increasing through the different rounds of NSS.

⁷ This has been highlighted by Dr.C.R.Soman, Director, Health Action by People (HAP), a well-known nutritional expert in Kerala.

Kerala, in providing a wider access to food which is complemented by free noon meal for children at school and supplementary nutritional programme for pre-school children, pregnant and lactating mothers. The same per capita intake can lead to different aggregate outcomes if its distributions are different in different population groups. Nutritional status is an increasing function of both intake and absorption. It is possible that in Kerala, lower intakes are translated into higher outcomes because of this mediating factor of better absorption caused by high levels of public health.

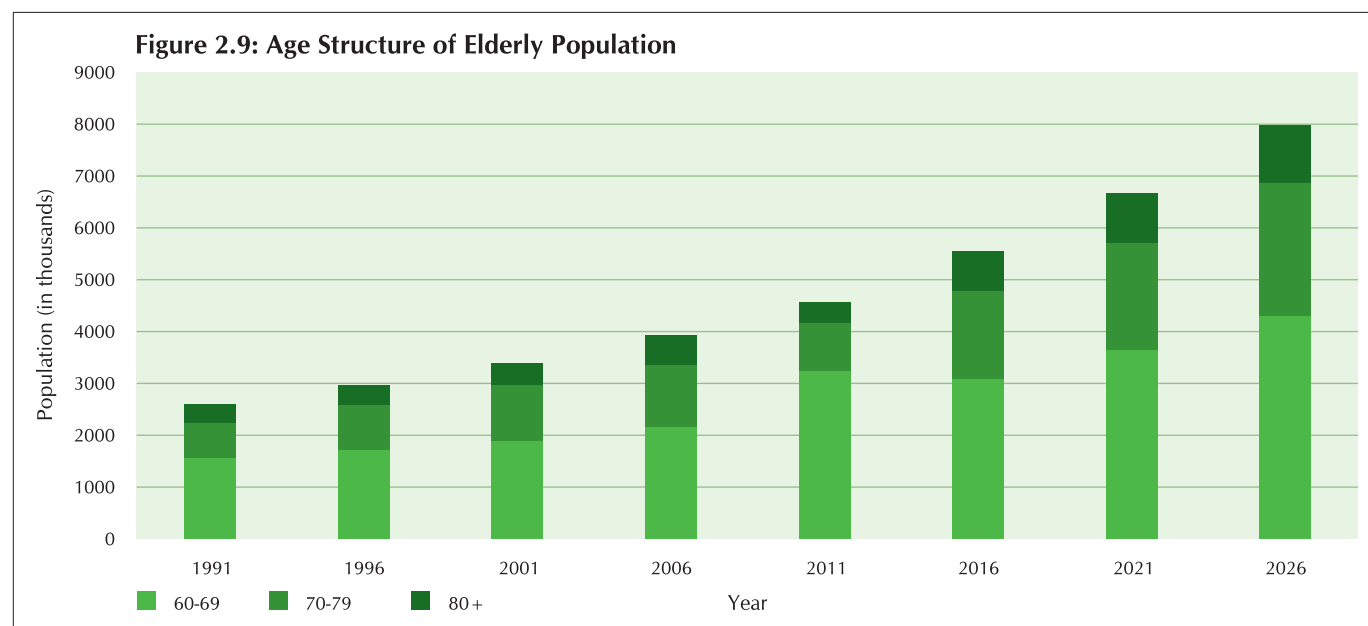
2.10 Low Birth Weight

Despite the remarkable achievements in maternal health care use, the prevalence of low birth weight (LBW) babies (less than 2.5 kg at full term) in Kerala remains high. The National Family Health Survey-I (1992-93) reported 19 per cent of low birth weight babies in rural Kerala. The study done by the Kerala Shasthra Sahitya Parishad (KSSP) in 1996 estimated the incidence of LBW babies to be in the order of 13.3 per cent across Kerala. Again the NFHS-II (1998-99) survey reported a figure of 15 per cent low birth weight babies in Kerala. The Reproductive and Child Health Survey (1998-99) reported that 16 per cent of the babies born were low birth weight. Recently, a study based on two large hospitals in Kerala,⁸ reported around 15 per cent incidence of LBW babies (Raman Kutty, 2004). The highest incidence of low

birth weight babies was observed in Wayanad district (30 per cent). The principal risk factors, the study identified, are mother's nutritional status before pregnancy, her weight and height, order of first birth and premature birth (15 days before the expected date of delivery). As we have noted earlier, child under-nutrition is in the range of 11-26 per cent with respect to different anthropometric indicators. LBW babies may be the cause for this. Low weight at birth must be expected to have long-term implications for health and well-being. Policy interventions should be aimed at improving the nutritional status among children and adolescent girls to reduce the prevalence of LBW babies. Wayanad has the highest proportion of tribal population and these poor health outcomes are a cause for further enquiry.

2.11 Ageing

We have noted earlier that Kerala, with its low fertility and mortality, now is in the final stage of demographic transition, which has resulted in a changing age structure of the population leading to population ageing. The proportion of population aged 60+ increased from 5.9 per cent in 1961 to 8.8 per cent in 1991 and then to 10 per cent in 2001, which may be attributed to a decline in fertility. This particular section of the aged population is expected to reach 17 per cent by the year 2021. However, when we classify old age population into 'young old' (60-69), 'old old' (70-79) and 'oldest old' (80 and above), the picture



Source: Census reports and Tharakan and Navaneetham (1999).

⁸ See Avittom Thirunal Hospital in Thiruvananthapuram and the Malankara Orthodox Syrian Church Medical Mission Hospital in Kolenchery are the two large hospitals studied.

is different; the increase is most likely to occur among the young old (60-69) population; around 55 per cent of the old age population belong to the category of 'young old' (60-69), 30-35 per cent belong to the category of 'old old' (70-79), and only 10-15 per cent belong to oldest old (80+) population (Figure 2.9).

The issue of ageing has been highlighted as a problem for Kerala's social and economic development rather than presented as an achievement. The changing age structure has resulted in a decrease in old age support ratio (number of working age population (15-59) per old age person (60+)). In 1961, there were 9 working age persons to support an old age person. This number declined to 7 in 1991 and is projected to fall to 4 by the year 2021. However, the age structure changes brought about by the demographic transition have also thrown up demographic dividends, which is discussed later.

The gender dimension of the old age population is of paramount importance in relation to the drawing up of an ageing policy. Since women generally live longer than males, approximately 5 years more in the case of Kerala, it reflects on the living arrangements that need to be made for older persons. Appropriate policies and institutional arrangements are necessary to protect the well-being of the older women. The overall sex ratio among the older population was 1,224 (number of females per 1,000 males) in 2001. However, when we look at the oldest old (80+), there are 1,529 females per 1,000 males. This is likely to increase in the future due to improvement in the longevity among females relative to males. It also implies that the size of widowhood among females would be larger than that of widowerhood among males in old age.

Nonetheless, it is important to view the phenomenon of ageing as an achievement also. An increase in life expectancy means that the living conditions of people have improved and that the present generation is healthier. Also, it is important to note that most old people, particularly in the category of 'young old' are not dependent and most of them do work. It may be true that the morbidity pattern has changed to more of chronic diseases as revealed by the 52nd Round of the NSSO. However, such change is unlikely to have any major effect on health care spending, provided planning and allocation are done in an efficient manner. In fact, the health care cost would merely be shifted from the young and adults to the older age groups as the health of the young and adult population has improved. Ageing

is a 'problem' only in the sense that it is an inevitable concomitant of improved levels of human development and must, therefore, be seen by society as a contingency that can and must be dealt with humanely.

3. Education

It is now generally perceived that the most basic problem of access to schooling has largely been overcome in Kerala. Table 2.9 presents the proportion of literate persons in the population for three Census years in the recent period. A comparison with all-India figures clearly shows that the difference between male and female achievement levels is much narrower in Kerala than in India as a whole.

Table 2.9: Proportion of Literate Persons in Population, Kerala and India

Year	Persons		Males		Females	
	Kerala	India	Kerala	India	Kerala	India
1981	81.6	43.6	87.7	56.4	75.7	29.8
1991	89.8	52.2	93.6	64.1	86.1	39.3
2001	90.9	65.2	94.2	75.6	87.9	54.0

Source: Census Reports, various years.

There is, however, some inter-district variation in the literacy rates, which will be examined in Chapter 4.

While evidence from other States shows that participation in education is a consistently increasing function of the economic status of the household, it is no longer so in Kerala. Table 2.10 from Tilak (2002), which is based on the NCAER survey conducted in 1993-94, presents the enrolment rates of children in the age group 6-14, grouped into four income classes in rural India. The last column gives the ratio of the enrolment rates for children in the highest income groups to the same in the lowest groups. It is clear that Kerala and Himachal Pradesh have the lowest ratio, which is close to unity.

Pupil-teacher ratio (number of students per teacher) is one of the indicators used for measuring the quality of school education. The pupil-teacher ratio in Kerala was 31 in 1991 and declined to 28 in 2001. The improvement in the ratio is due largely to decline in the school-going population as a consequence of the demographic transition in the State. The ratio does not vary significantly (coefficient of variation of only 7 per cent) among the districts in Kerala. The proportion of female teachers is as high as 68 per cent in Kerala; however, the ratio is below 60 per cent in the districts

of Kasaragod (49 per cent), Kozhikode (51 per cent), Wayanad (57 per cent), Kannur (57 per cent) and Malappuram (57 per cent). These districts, part of the

earlier Malabar region, are also at the lower end of achievements in literacy rates compared to the State average, though the differences are narrowing down.

Table 2.10: Enrolment of Children (6-11 years) by Income Group in Rural India

States	Household Income Groups (Annual/Rs.)				All	Gap in Enrolment
	< 20000	20001-40000	40001-62000	> 62000		
Andhra Pradesh	68.2	72.1	80.0	96.1	71.6	1.41
Bihar	48.1	64.2	68.3	83.2	56.9	1.73
Gujarat	67.6	83.0	78.7	88.1	74.4	1.30
Haryana	65.0	76.1	83.2	83.0	74.8	1.28
Himachal Pradesh	88.0	94.4	94.7	90.1	90.8	1.02
Karnataka	68.8	73.9	77.8	78.0	71.7	1.13
Kerala	96.9	96.5	96.6	98.9	96.9	1.02
Madhya Pradesh	49.2	62.8	68.0	76.2	57.6	1.55
Maharashtra	75.9	79.5	85.3	87.8	79.2	1.16
N-E Region	75.6	76.5	79.6	79.8	78.6	1.06
Orissa	58.9	77.8	80.2	90.7	65.5	1.54
Punjab	77.8	81.5	84.1	93.2	82.1	1.20
Rajasthan	51.6	57.8	73.3	78.5	58.7	1.52
Tamil Nadu	75.4	79.2	87.0	94.7	78.1	1.26
Uttar Pradesh	52.3	64.4	73.2	82.6	61.5	1.58
West Bengal	56.1	71.7	76.8	90.5	62.0	1.61
Rural India	60.6	70.8	77.4	84.4	67.1	1.39

Source: Tilak (2002).

Table 2.11: Student - Teacher Ratio and Percentage of Female Teachers by Districts, 1991 and 2001

Districts	Student - Teacher Ratio		No. of Female Teachers to Total Teachers (%)	
	1991	2001	1991	2001
Thiruvananthapuram	31	30	67	75
Kollam	31	31	67	76
Pathanamthitta	27	25	73	79
Alappuzha	30	28	74	80
Kottayam	28	26	71	79
Idukki	33	27	62	67
Ernakulam	29	28	75	81
Thrissur	31	30	78	85
Palakkad	34	30	65	69
Malappuram	36	31	56	57
Kozhikode	30	26	48	51
Wayanad	36	30	53	57
Kannur	28	24	53	58
Kasaragod	35	28	43	49
Kerala	31	28	64	68
Coefficient of Variation (%)	9	7	17	17

Source: Educational Statistics since Independence, 2004, DPI, Thiruvananthapuram.

Note: Includes all schools – Government, aided and unaided.

The strong presence of the private sector in the school education system of Kerala has continued, a majority being aided by the State. In 2001-02, private schools accounted for 63 per cent of the total number of schools, 59 per cent being private aided schools and 4 per cent unaided. For reasons discussed earlier, almost all the private aided schools (and colleges) belong to the major religious/caste communities. The early spread of private aided schools (as well as colleges) was mainly motivated by the internal social reform of the main religious communities and castes, and as such they are mostly owned by them. Nevertheless, their social advantage has been substantial, as history has proven.

However, despite a low pupil-teacher ratio, there is widespread discontent among educationists and people in general about the *quality* of education imparted in schools in Kerala. It is argued that a correct diagnosis of this problem requires a critical look at the early stages of school education. Given the centrality of education in a human development-based growth strategy for Kerala, we devote an entire chapter (Chapter 6) to this theme where we discuss the issue of quality in further detail.

4. Social Infrastructure

Needless to state, achievements on the health and education fronts were to a large extent possible through investments in infrastructure. Kerala has had an edge over many other States in social and economic infrastructure, such as road transport, post

offices, telecommunication, banking, schools, medical institutions, number of hospital beds and so forth but has remained below the all-India average in irrigation and electricity generation (Appendix Table A2.2). The 12th Finance Commission ranks Kerala among the 'high middle' on the Infrastructure Index together with Gujarat, Haryana and Tamil Nadu while Goa, Maharashtra and Punjab are classified as States with a 'High' Index (Ministry of Finance, 2004). Here, we focus on the education and health infrastructure.

Public expenditure on education – on primary and secondary education in particular – has risen consistently in real terms over the last four decades. Kerala has more than 180,000 teachers working in more than 12,000 educational institutions that cater to nearly 5.4 million students. The distribution of schools turns out to be about one school for every 3 sq. km and the number of schools per lakh population is about 42. At present, 94.4 per cent of the rural population is served by primary schools/sections within a distance of 1 km and 98 per cent within 2 km. Upper primary schools/sections are available for 96.2 per cent of the rural population within a distance of 3 km, and secondary education for 24.7 per cent within 2 km. and for 97.8 per cent within 6-8 km.⁹ Commensurate with the population density, Kerala also had a higher school density, and this along with a better transportation infrastructure has ensured expanding accessibility.

As regards the number of schools per lakh of school-going population by districts, the lowest were in the districts of Wayanad, Malappuram, Thrissur and Thiruvananthapuram, and the highest were in the districts of Kannur, Kottayam and Pathanamthitta (Map 2.2). The estimated coefficient of variation is around 19 per cent.

Physical facilities like school buildings, furniture and equipment, sports facilities, toilets, drinking water, etc., are known to be much better in Kerala than anywhere else in the country. Around 82 per cent of the Government schools have good quality building (pucca building), 89 per cent of schools have drinking water facilities and 74 per cent of schools have urinal/latrine facilities in Kerala. Good quality building and other ancillary facilities need to be further improved, and attention is needed to improve the school facilities



9 Government of Kerala (2002: 250).

in some districts. For instance, the percentage of schools with pucca building is lowest in Wayanad (59 per cent) followed by Thiruvananthapuram (60 per cent) and Kasaragod (73 per cent) (Table 2.12). Also, the percentage of schools having latrine/urinal

facilities is significantly low in Kasaragod (47 per cent) followed by Pathanamthitta (50 per cent). It is reported that only 36 per cent of the LP schools have latrine/urinal facilities in Pathanamthitta district (Table 2.13).

Table 2.12: No. of Schools (Govt.) having Pucca Buildings, 2001 (%)

District	Lower Primary	Upper Primary	High School	Total
Thiruvananthapuram	62.3	65.3	51.2	60.3
Kollam	83.3	80.6	96.0	85.2
Pathanamthitta	97.0	95.3	100.0	97.3
Alappuzha	91.2	82.1	62.1	84.0
Kottayam	92.3	95.6	93.2	93.2
Idukki	73.3	77.5	78.8	75.8
Ernakulam	100.0	98.9	97.8	99.2
Thrissur	88.4	89.3	95.0	90.7
Palakkad	89.6	90.5	79.7	87.9
Malappuram	90.8	73.2	73.2	84.4
Kozhikode	85.4	71.1	71.6	79.3
Wayanad	59.3	50.0	67.5	59.4
Kannur	87.7	87.0	64.6	80.6
Kasaragod	89.4	83.3	31.1	72.8
Kerala	85.3	81.7	74.5	82.2
Coefficient of Variation (%)	13.6	15.8	25.4	14.2

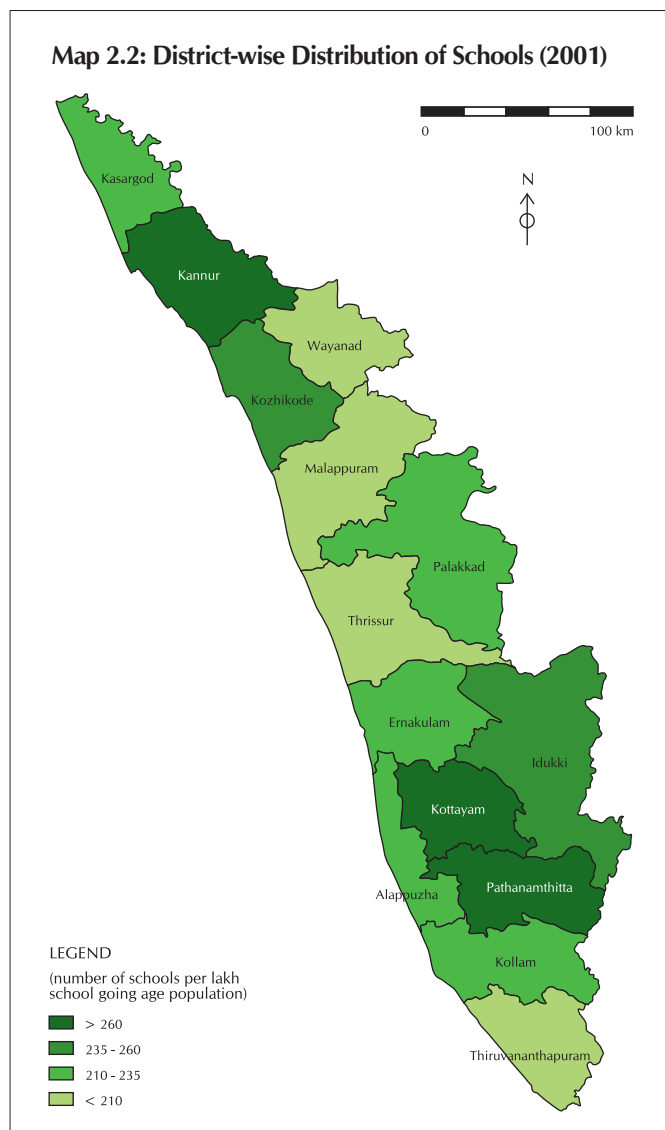
Source: Educational Statistics since independence 2004, DPI, Thiruvananthapuram.

Table 2.13: Ancillary Facilities in Govt. Schools, 2001

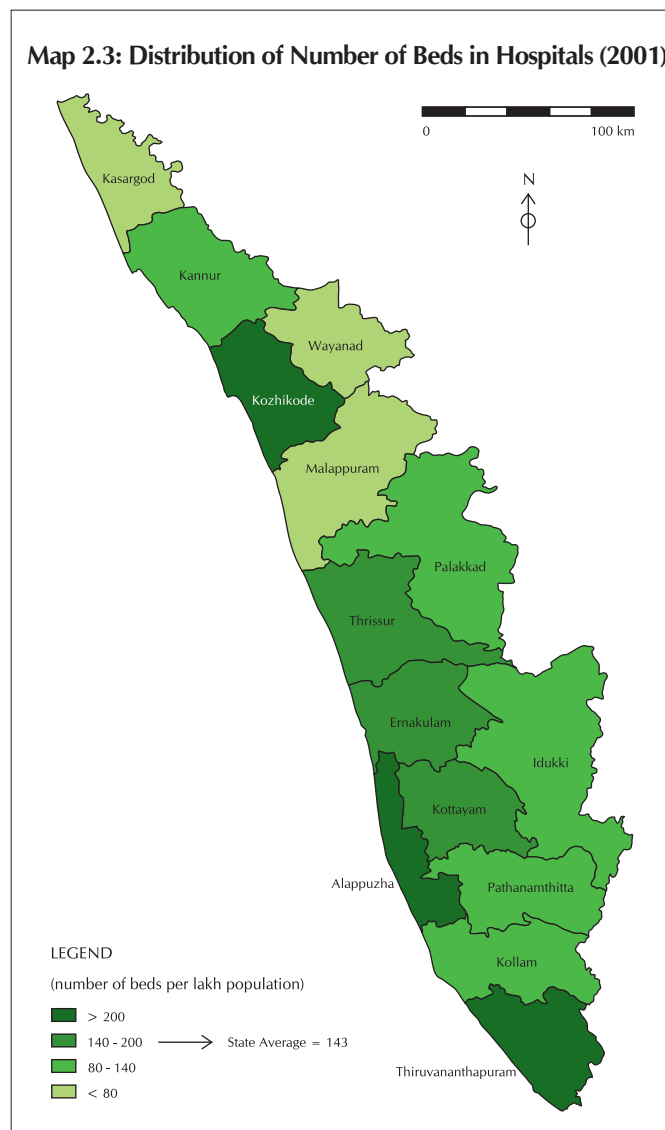
Districts	Drinking Water (%)				Toilet/Latrine (%)			
	Lower Primary	Upper Primary	High School	Total	Lower Primary	Upper Primary	High School	Total
Thiruvananthapuram	96.0	99.0	90.9	95.4	63.9	94.9	86.8	75.0
Kollam	87.4	95.2	92.0	89.4	79.9	83.9	89.3	82.3
Pathanamthitta	80.4	58.1	97.9	79.8	35.7	51.2	97.9	49.6
Alappuzha	83.0	71.6	94.8	82.8	66.0	76.1	87.9	72.1
Kottayam	79.9	94.1	94.9	86.2	85.2	95.6	89.8	88.5
Idukki	90.7	60.0	57.7	74.2	82.6	82.5	82.7	82.6
Ernakulam	62.4	91.3	93.3	77.2	61.8	81.5	91.1	73.9
Thrissur	86.8	85.7	81.3	84.8	60.3	71.4	76.3	67.7
Palakkad	94.3	92.1	96.6	94.3	90.2	87.3	94.9	90.5
Malappuram	92.2	98.2	95.1	93.9	80.9	82.1	80.5	81.1
Kozhikode	87.0	94.7	94.0	90.2	70.3	80.3	62.7	71.0
Wayanad	90.1	97.1	95.0	92.7	58.2	85.3	52.5	62.4
Kannur	87.7	96.1	92.7	91.6	69.3	77.9	81.7	75.5
Kasaragod	98.6	94.4	97.3	97.2	49.6	43.1	40.5	45.6
Kerala	87.3	90.0	91.2	88.7	69.6	79.1	80.1	73.9
Coefficient of Variation (%)	9.9	15.3	11.0	7.9	21.1	18.2	20.1	17.4

Source: Educational Statistics Since independence, DPI, Thiruvananthapuram, 2004.

Map 2.2: District-wise Distribution of Schools (2001)



Map 2.3: Distribution of Number of Beds in Hospitals (2001)



4.1 Health

Health development in Kerala, comparable to that of high-income countries, has been the outcome of investment in health infrastructure in public, private and co-operative sectors, along with people's health awareness and connectivity. As per the 1991 Census, Kerala has the highest number of hospitals in India. Kerala's health care network in the public sector, under the three medical systems of allopathy, *Ayurveda* and homoeopathy, had a total of 7,831 institutions in 2001-02, including sub-centres. The institutions under the allopathy system were 1,310, with 46,800 beds – including 941 primary health centres, 107 community health centres and 143 hospitals. Each sub-centre in Kerala serves a population of about 5,000 as against 4,581 at the all-India level, and each primary health centre, a population of more than

25,000 and each community health centre, about 2.25 lakh. It should be noted that as in the case of school infrastructure, each medical institution in Kerala serves a larger population due to high density, but the area covered is much less than for all-India, which in fact ensures greater accessibility.

Though the achievement in human development index does not vary significantly among the districts (as we see in Chapter 4), some of the input indicators such as number of beds per 1,000 population and number of schools per lakh school-going population varied among the districts in Kerala. Map 2.2 gives the spatial variation of number of beds per 1,000 population. The number of beds per 1,000 population is the lowest in the districts of Kasargod, Wayanad and Malappuram. This is the highest in Thiruvananthapuram, Alappuzha and Kozhikode districts. The estimated coefficient of variation is around 38 per cent.

In fact, as in the case of education, private provision far exceeds public provision in health care. A recent study conducted by the Department of Economics and Statistics (in 1995) found that there were in the private sector of Kerala 12,328 medical institutions with 70,506 hospital beds. This included 4,288 allopathic medical institutions with 67,517 beds (against 1,227 public sector allopathic institutions with 37,905 beds), 4,922 *ayurvedic* institutions with 2,595 beds and 3,118 homoeopathic institutions with 394 beds;¹⁰ an earlier survey (in 1986) brings out the continuing growth in private health care sector.¹¹ It goes without saying that a sizeable proportion of demand for health care provision is directed towards the private sector in Kerala, which explains to a significant extent the development of health care in the State.

The tremendous growth of the private sector in the health care provision system of Kerala has, however, raised a number of problems of both governance and equity. There has never been an effective regulatory mechanism in force, and a good section of the sector has grown into a medical elite of 'super speciality' centres, with little access for commoners. Here the poor stand disadvantaged on two counts: They cannot afford to access medical care facilities of a wide range in the private sector, and at the

same time, the 'brain drain' from the public to the private sector leaves the poor deprived of better medical attention in Government hospitals.

4.2 Potable Water

One of the key factors that contribute to the health status of a population is protected (piped) drinking water supply. It should be noted that Keralites in general have been in the habit of drinking boiled water (often with some medicinal leaves or roots or seeds) and this has generally helped them avert the attack of water-borne diseases, despite their drawing water from open wells or ponds or streams. Though this persistent good health habit renders protected drinking water supply somewhat irrelevant in its mission of health protection, its public provision has been on the rise. As in July 2003, 64 per cent of the population in Kerala, with 59 per cent in the rural and 79 per cent in the urban areas, received piped water supply.

4.3 Sanitation

Sanitation is another critical factor in health status determination that has earned Keralites a reputation for personal cleanliness. That Keralites attach a high premium to the significance of having a sanitary latrine is

Table 2.14: Percentage of Households having Latrine and Electricity Connections by Districts, 2001

State/Districts	Percentage of Households having					
	Latrine			Electricity		
	Total	Rural	Urban	Total	Rural	Urban
Thiruvananthapuram	82.56	78.60	90.86	74.94	69.46	86.38
Kollam	82.63	80.97	90.78	73.00	70.30	86.26
Pathanamthitta	81.73	81.22	86.57	71.58	70.46	82.21
Alappuzha	80.00	76.93	87.81	74.60	72.56	79.77
Kottayam	85.33	84.23	91.61	77.71	75.78	88.78
Idukki	75.99	75.24	91.12	56.78	55.60	80.50
Ernakulam	91.95	89.45	94.81	84.90	80.12	90.38
Thrissur	90.91	89.46	94.63	77.30	74.19	85.27
Palakkad	68.40	66.11	82.72	60.27	57.19	79.55
Malappuram	87.37	86.84	92.28	63.84	62.67	74.68
Kozhikode	91.97	90.28	95.09	64.15	55.71	79.66
Wayanad	85.15	85.06	87.54	41.96	41.23	60.77
Kannur	87.21	82.17	92.76	66.99	51.28	84.26
Kasaragod	68.43	64.12	86.42	57.20	52.40	77.21
Kerala	84.01	81.33	92.02	70.24	65.53	84.34

Source: Estimated from Census 2001.

¹⁰ Government of Kerala (2002: 250).

¹¹ Government of Kerala (1987).



evident in the fact that the State has the highest coverage (84 per cent as per 2001 Census) of individual households with latrines in India. In 2001, about 81 per cent of the rural and 92 per cent of the urban households in Kerala had toilets (Table 2.14); in 1991, these were 44 and 73 per cent, respectively. It should be noted that the coverage has been limited among poor households, who are even otherwise more vulnerable to health hazards. The situation, however, appears to have some potential for improvement with the decentralisation process that has transferred sanitation to the jurisdiction of the local Governments. It is reported

that about 300 *grama panchayats* in Kerala assigned prime priority to sanitation and 50 of them achieved more than 95 per cent coverage of household sanitary latrines during the Ninth Plan period.¹² Personal and home cleanliness notwithstanding, environmental hygiene in terms of solid and liquid waste disposal has become a serious problem, since open waste provides an ideal breeding ground for pathogens and germ carriers, resulting in the emergence of diseases like leptospirosis, we mentioned earlier. Public sanitation is an issue we discuss later.

4.4 Communication

Communication facilities are critical across all aspects of development, especially in an internationally integrated economy. We highlight the rapid growth of telecommunication in Kerala. Globalisation and the emergence of a knowledge-based economy have ushered in a telecommunication revolution and Kerala has been quick to avail of this device that narrows down global distances. The number of telephone connections in Kerala rose to 3.02 million by 2002-03, an addition of more than 2.8 million connections over 1989-90. Kerala's telephone density of 95 per 1,000 population (101 per 1,000 population, including BSNL cellular mobile connections as in March 2003) is much above the national

Table 2.15: Area and Population Served by Communication Networks by Districts, 2002-03

State/Districts	Area (sq. km.) Served per Post Office	Population Served per Post Office	Telephone Connections per sq. km. (No.)	Telephones per 1000 Population (No.)
Thiruvananthapuram	5.23	7,720	163.73	110.94
Kollam	6.82	7,079	96.40	92.93
Pathanamthitta	8.46	3,947	69.36	148.73
Alappuzha	4.77	7,112	140.28	94.23
Kottayam	5.36	4,751	110.48	124.69
Idukki	17.12	3,851	17.67	78.55
Ernakulam	6.12	7,883	165.78	128.80
Thrissur	6.20	6,084	107.99	110.06
Palakkad	9.82	5,739	36.08	61.77
Malappuram	8.10	8,286	65.02	63.59
Kozhikode	5.67	6,969	95.09	77.45
Wayanad	13.07	4,825	21.83	59.11
Kannur	7.80	6,348	70.81	87.07
Kasaragod	8.47	5,120	48.46	80.25
Kerala	7.67	6,288	77.65	94.62

Source: Government of Kerala (2004).

¹² Government of Kerala (2004: 167).

average. There were about 78 telephone connections in every sq. km area of the State in 2002-03. District-wise variations throw up a surprising result – low connectivity in Malappuram district which has the highest incidence of migration (Table 2.15).

Kerala has had an edge over all-India in the number of post offices also. A number of favourable demand factors were at work behind the fast spread of post offices in Kerala, including emigration of Keralites to other parts of India and abroad, literary movements and spread of print media. It is significant to note that out of the 5,077 post offices in Kerala at present, as many as 4,197 are in rural areas. Kerala stands far above the all-India average, with 13 post offices per 100 sq. km of area. That is, every 7.7 sq. km of area in Kerala is now served by a post office, whereas it is 21 sq. km of area for one post office all-India. Along with this higher level of availability is an equally higher access level. On an average, one post office in Kerala serves 6,271 persons in an area of 7.7 sq. km against 6,568 persons in an area of 21 sq. km for all-India.

5. Concluding Observations

This chapter has mainly confirmed what is well-known about Kerala's development experience in certain non-income dimensions of human well-being. Additionally, gender, rural-urban and inter-district disparities in the levels of achieved functionings display a pleasing divergence from the picture of group inequity, which obtains for much of the rest of the country; however, there are certain input indicators which display spatial inequalities. It must be stressed that not only must the achievements of human development be maintained at their current high levels, but additional preparedness



should be forthcoming in order to tackle high levels of morbidity, undernourished children and the enhanced levels of dependency ratios caused by the trend of increasing life expectancy in the State. Resources must be found to maintain existing achievements and to meet emerging needs: The importance of raising incomes and alleviating income-related poverty cannot, therefore, be exaggerated. The next chapter addresses these issues.

Appendix

Table A2.1: Anthropometric Indicators for Children Below 3 years by States in India (1998-99)						
States	Weight-for-age		Height-for-age		Weight-for-height	
	Percentage Below-3 SD	Percentage Below-2 SD	Percentage Below-3 SD	Percentage Below-2 SD	Percentage Below-3 SD	Percentage Below-2 SD
Andhra Pradesh	10.3	37.7	14.2	38.6	1.6	9.1
Assam	13.3	36.0	33.7	50.2	3.3	13.3
Bihar	25.5	54.4	33.6	53.7	5.5	21.0
Gujarat	16.2	45.1	23.3	43.6	2.4	16.2
Haryana	10.1	34.6	24.3	50.0	0.8	5.3
Himachal Pradesh	12.1	43.6	18.1	41.3	3.3	16.9
Jammu & Kashmir	8.3	34.5	17.3	38.8	1.2	11.8
Karnataka	16.5	43.9	15.9	36.6	3.9	20.0
Kerala	4.7	26.9	7.3	21.9	0.7	11.1
Madhya Pradesh	24.3	55.1	28.3	51.0	4.3	19.8
Maharashtra	17.6	49.6	14.1	39.9	2.5	21.2
Orissa	20.7	54.4	17.6	44.0	3.9	24.3
Punjab	8.8	28.7	17.2	39.2	0.8	7.1
Rajasthan	20.8	50.6	29.0	52.0	1.9	11.7
Tamil Nadu	10.6	36.7	12.0	29.4	3.8	19.9
Uttar Pradesh	21.9	51.7	31.0	55.5	2.1	11.1
West Bengal	16.3	48.7	19.2	41.5	1.6	13.6
India	18.0	47.0	23.0	45.5	2.8	15.5

Source: NFHS-II, 1998-99.

Note: SD – Standard Deviation.

Table A2.2: Infrastructure Development in Kerala and India

No.	Infrastructure		1960-61	1970-71	1980-81	1990-91	2000-01
1.	Irrigated area per 100-hectares of cropped area	Kerala India	8.11 18.31	20.49 23.04	15.66 22.39	12.79 34.03	15.12 40.06
2.	Per capita installed generating capacity of electricity (kW.)	Kerala India	0.0078 0.0129	0.0257 0.0301	0.0398 0.0491	0.0509 0.089	0.076 0.1104
3.	Per capita consumption of electricity (kWh.)	Kerala India	30 38.2	71 89.8	109.4 132.3	185.06 252.8	311.67 366.12
4.	No. of post offices/100 sq. km. of area	Kerala India	7.45 1.52	8.47 3.32	11.76 4.24	12.57 4.52	13.04 4.71
5.	No. of post offices/100,000 population	Kerala India	17.14 11.5	15.49 20.16	18.01 20.5	16.86 17.73	15.93 15.2
6.	Telephone connections per 1000 population	Kerala India	0.99 1.06	1.79 2.39	3.71 4.1	8.97 7.18	67.89 32.1
7.	Road length/100 sq. km. of area	Kerala India	106.31 21.56	161.08 25.91	241.61 35.97	330.04 70.91	323.44 142.14
8.	Rail route length/100 sq. km. of area	Kerala India	2.29 1.72	2.29 1.83	2.28 1.86	2.57 1.9	2.95 1.92
9.	No. of banks/100 sq. km. of area	Kerala India	1.35 0.15	1.71 0.39	6.06 1.1	7.32 1.88	9.8 2.08
10.	No. of banks/100,000 population	Kerala India	3.11 1.15	3.12 2.39	9.28 5.31	9.82 7.36	11.98 6.73
11.	No. of medical institutions per 100 sq. km. of area (public allopathy)	Kerala India	0.64 0.38	1.42 0.44	2.49 0.72	3.06 1.17	3.29 1.17
12.	No. of medical Institutions per 1 lakh population (public allopathy)	Kerala India	1.48 2.87	2.6 2.7	3.81 3.47	4.1 4.6	4.02 3.76
13.	No. of beds in hospitals per 1,00,000 population (public allopathy)	Kerala India	67.55 52.87	102.34 66.36	127.73 83.8	124.29 96.66	117.98 89.78
14.	No. of schools/100 sq. km. of area	Kerala India	24.36 14.31	27.82 19.66	29.79 20.53	31.19 24.58	31.69 31.92
15.	No. of schools/1000 school-going age population	Kerala India	2.03 3.72	1.97 4.29	1.94 3.76	2.05 3.79	2.21 4.15
16.	Teachers/100 pupils in schools	Kerala India	3.4 2.96	3.05 2.98	3.13 2.98	3.24 2.65	3.56 1.97

Source: Estimated from Govt. of Kerala, Economic Review, various issues; Govt. of India, Economic Survey and Statistical Abstract, various issues.

Assessing Development

THE INCOME DIMENSION

1. Introduction

The preceding chapter dealt with Kerala's development experience in relation to non-income aspects of achievements. This perspective does not dismiss the income dimension of development as unimportant. Access to income – both for its intrinsic importance as a source of self-respect and the respect of others, and for its contingent importance as a means to a 'good life' as the end – is valued as a significant human freedom, even if not the only one which matters. The present chapter, therefore, complements the previous one by undertaking an assessment of Kerala's development in terms of the pattern of income-growth, enhanced by the inflow of remittances and the profile of income-poverty that have characterised its economic regime. We then review the social security measures the State has undertaken for poverty eradication, which assume considerable significance given the sharp reduction in poverty, both rural and urban, in Kerala during the 1990s.

2. Growth Pattern of the Kerala Economy

2.1 Two Phases of Growth

The long-term growth analysis of the Kerala economy reveals two distinct phases in its economic development. A graphical analysis of the path of the Net State Domestic Product (NSDP) since 1970-71 at constant prices shows a significant turnaround in the trend around 1987-88 not only of the aggregate NSDP (Figure 3.1) but also of the three broad sectors. The first phase, i.e. prior to 1987, is characterised by near stagnation of major economic indicators and the next, the post-1987 phase by significant growth. It should be noted that despite stagnation, human development, in terms of education and health indicators, continued to improve during the first period.

2.2 From Stagnation to Revival

A comparative picture of Net Domestic Product (NDP) for Kerala and all-India for the two time periods reveals that annual growth rate of NSDP of Kerala increased from 1.9 per cent to 5.8 per cent over this time span. It is also interesting to note that the growth rate, which was nearly half the all-India figure in the first period, caught up with it at almost the same level in the second period. These figures suggest that the Kerala economy has gradually emerged out of the situation of high social sector development with low economic growth. In fact, the late 1980s witnessed a slight improvement in growth performance, but evidently

not enough to recover from the slow growth syndrome. It can thus be considered that the 1990s constituted a phase of growth momentum of the Kerala economy (Table 3.1).

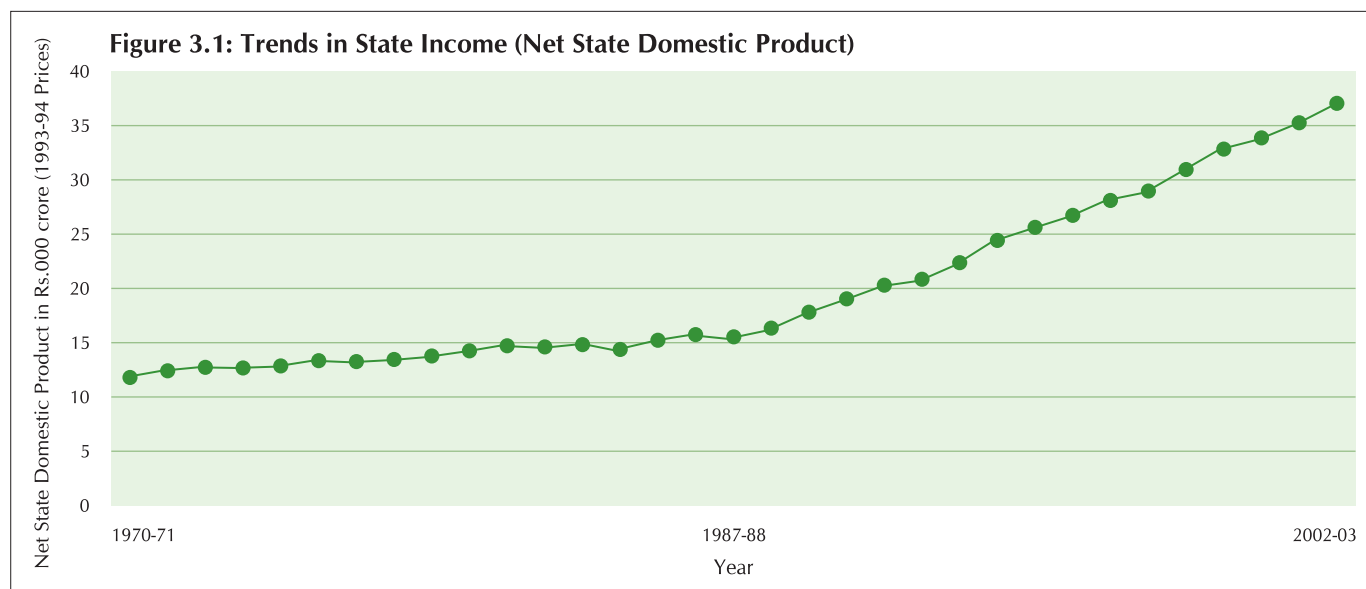
Table 3.1: Sectoral Growth Rate of Net State Domestic Product (1993-94 Prices)

Sector	Kerala		All India	
	Period 1	Period 2	Period 1	Period 2
Primary Sector	-0.14	2.90	2.69	3.47
Secondary Sector	2.38	6.13	5.02	6.53
Tertiary Sector	3.28	7.55	5.19	7.48
Aggregate	1.89	5.79	4.08	5.98
Per capita SDP/GDP	0.52	5.03	1.87	4.01

Note: Period 1 = 1970-71 to 1986-87 and Period 2 = 1987-88 to 2002-03.
Source: Estimated from CSO, *National Accounts Statistics*, different issues.

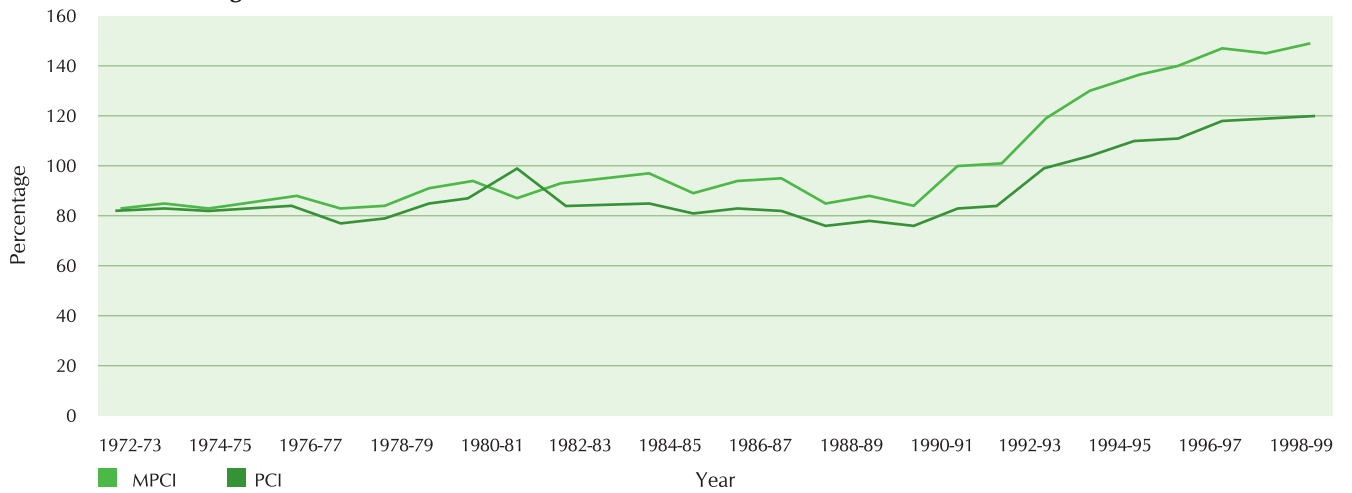
2.3 Per Capita SDP

During the stagnation phase, Kerala's average annual growth rate of NSDP was too low to cover even the population growth rate, while at the all-India level, it was 1.53 per cent above the population growth rate. What is significant is that the Kerala economy overtook the all-India per capita SDP growth rate during the second phase. It may be noted here that this growth in per capita income in effect also represents a complementary effect of human development through the demographic transition; it is the drastic fall in population growth rate that partly explains the significant rise in per capita income.



Source: Kerala Economic Review, various issues.

Figure 3.2: Kerala's Per Capita Income (PCI) and Modified Per Capita Income (MPCI) as Percentage of All-India



Source: Kannan and Hari (2002).

It can be seen from Figure 3.2 that the per capita NSDP of Kerala, which had been consistently below that of all-India, increased at a much faster rate in the 1990s. Since 1993-94 onwards, the Kerala economy has been performing much better than all-India in terms of per capita NSDP. It should be noted that these estimates of NSDP and per capita NSDP are devoid of the remittance income of non-resident Keralites and if we consider the remittances, Kerala's 'modified' NSDP and 'modified' per capita NSDP¹ would come out much higher than the official estimates.

2.4 Remittance Incomes

It should be noted that the official estimates of NSDP and per capita NSDP are devoid of the remittance income of non-resident Keralites. It is reported that in 1998, there were 13.62 lakh Kerala emigrants living abroad. Emigration from Kerala accelerated in recent years; between 1988-1992 and 1993-1997, the number of emigrants increased by 120 per cent.² Remittance income data are available only for the country as a whole and not for the constituent States; hence, the remittances are not counted in the calculation of NSDP, which in effect does not reflect the actual level of income the State receives. A number of attempts have been made to estimate remittances for Kerala, for example, by attributing a certain share according to

Kerala's share of Indian workers abroad,³ or indirectly estimating it by means of a proxy variable like per capita bank deposits.⁴ An estimate of the total cash remittances received by Kerala households (as during a 12-month period) in 1998 comes to the tune of Rs. 35,304 million. The average remittance was about Rs. 25,000 per emigrant, (Rs.5,500 per household and Rs. 1,105 per capita). The annual remittances received by Kerala households were 2.55 times higher than what the Kerala Government received from the Central Government by way of budget support. It was more than the export earnings from the State's seafood industries (about Rs.10,000 million) or export earnings from the State's spices industry (Rs.5,700 million). Besides cash, households received several items in kind—clothing, ornaments and jewellery, and electric and electronic gadgets; the estimated total value of goods received in that year comes to about Rs.5,413 million. Total remittances thus estimated (cash plus goods) amounts to Rs.40,717 million or 10.7 per cent of SDP in 1998.

However, reliable estimates of the quantum of remittances over time are difficult to obtain. A recent study at CDS⁵ has estimated, with somewhat better informational base, a time series of remittances to Kerala (using the first method) for a period of about three decades beginning from the early 1970s. These estimates show

¹ To be explained in the next Section.
² Zachariah et al (2002).
³ See Gulati and Modi (1983).
⁴ See Krishnan (1994).
⁵ Kannan and Hari (2002).

Table 3.2: Foreign Remittances and State Income (NSDP) (Rs. crore)

Year	Total Remittance	NSDP	Remittance as % of NSDP	Year	Total Remittance	NSDP	Remittance as % of NSDP
1972-73	8.31	1,457	0.57	1986-87	929.23	7,354	12.64
1973-74	10.6	1,823	0.58	1987-88	972.27	8,258	11.77
1974-75	22.01	2,086	1.06	1988-89	899.56	9,182	9.8
1975-76	45.94	2,228	2.06	1989-90	1,239.93	10,668	11.62
1976-77	108.25	2,398	4.51	1990-91	945.84	12,173	7.77
1977-78	161.68	2,521	6.41	1991-92	2,537.33	15,102	16.8
1978-79	152.12	2,754	5.52	1992-93	3,124.33	17,175	18.19
1979-80	217.07	3,156	6.88	1993-94	4,028.92	23,401	17.22
1980-81	348.24	3,823	9.11	1994-95	6,410.34	28,697	22.34
1981-82	382.38	4,050	9.44	1995-96	7,434.67	35,087	21.19
1982-83	480.41	4,712	10.2	1996-97	9,999.62	40,819	24.5
1983-84	623.69	5,523	11.29	1997-98	11,302	47,924	23.58
1984-85	847.54	6,141	13.8	1998-99	11,285.6	56,563	19.95
1985-86	581.31	6,503	8.94	1999-2000	14,157.9	62,557	22.63

Source: Kannan and Hari (2002).

that remittances to the Kerala economy ranged from 17 per cent during 1991-92 to 24 per cent during 1997-98, with an average of 21 per cent for the period 1991-92 to 1999-2000 (Table 3.2). Hence, considering the remittances, Kerala's NSDP and per capita NSDP (referred to by the study as 'Modified Per Capita Income or MPCPI) is much higher (Figure 3.2). 'Remittances as percentage of NSDP also increased from around 11 per cent to more than 21 per cent, reflecting a faster growth of remittances than the NSDP'.⁶ The modified per capita NSDP (including remittance income) grew during the second phase at an annual rate of 6.86 per cent, much above that of the official NSDP.

A district-wise distribution of remittances is given in Table 3.3, with Malappuram ranked first in terms of proportion of total remittances. Per household remittances are also the highest in Malappuram whereas per capita amount is higher for Pathanamthitta district.

2.5 Sectoral Growth

Given this aggregate picture of the growth of the Kerala economy, we now turn to identifying the sector(s) that propelled the economy out of its slow growth trajectory. An analysis of the sectoral growth rates for the two phases presents some significant results. While the primary sector registered a negative growth rate during the first period,

it recovered during the second period. Viewed from a long-term perspective, however, the primary sector does not hold the promise of propelling higher growth for the economy as the sector still records lower growth. Regarding the secondary sector, growth rates have registered a remarkable recovery in the second phase. However, it is the tertiary sector that stands out with the highest growth rates (in both the periods). Thus, as against the commodity producing sectors, it is the tertiary sector that has been the high growth driver of Kerala's economy, especially since the mid-1980s. As mentioned earlier, this has been the historical profile of Kerala's growth in general; the tertiary sector has been the leading source of growth, but it must equally be emphasised that during the second phase, all the three sectors experienced faster growth.

As the growth behaviour of the Kerala economy points to a tertiary sector-led growth, we provide a disaggregated picture of the tertiary sector in Table 3.4. In the first period, while on an average, the sector recorded only a growth rate of 3.3 per cent, within the sector banking and insurance, public administration, and transport and communications registered higher growth rates. In the second period, the rank order became transport and communications, banking and insurance, and public administration though at a low level, closely followed by trade and hotels. The sectors showing a decreasing growth tendency were public administration and real estate. It should also be noted that

⁶ Ibid.

Table 3.3: Annual Remittance in Cash from Abroad, by Districts, 1998

District	Rs. (million)	% of Total	Per Emigrant (Rs.)	Per HH (Rs.)	Per capita (Rs.)
Thiruvananthapuram	3,386	9.9	22,035	5,168	1,081
Kollam	2,864	7.6	25,111	5,119	1,154
Pathanamthitta	2,328	7.1	23,694	7,898	1,922
Alappuzha	2,172	6.4	35,869	4,545	1,048
Kottayam	1,009	3.2	24,787	2,573	526
Idukki	38	0.1	7,111	151	35
Ernakulam	4,076	12.9	40,394	6,659	1,375
Thrissur	5,096	13.6	28,858	8,099	1,744
Palakkad	3,390	8	26,188	6,368	1,302
Malappuram	6,156	17.1	21,217	10,205	1,664
Kozhikode	2,181	6.6	17,538	4,133	759
Wayanad	60	0.2	11,583	381	81
Kannur	2,057	5.7	21,985	4,377	803
Kasaragod	511	1.6	14,655	2,576	427
Kerala	35,304	100	24,809	5,459	1,105

Source: Zachariah, Mathew and Rajan (2003).

Table 3.4: Service Sector Growth in Kerala and India (%)

Industry	Kerala		All India	
	Period 1	Period 2	Period 1	Period 2
1. Transport, Storage & Communication	6.55	12.71	5.45	7.37
2. Trade, Hotels and Restaurants	0.88	6.29	4.79	7.12
3. Banking & Insurance	9.19	12.21	8.63	11.51
4. Real Estate, Ownership of Dwellings and Business Services	-0.71	-20.15	5.63	7.18
5. Public Administration	8.77	6.40	5.72	5.82
6. Other Services	3.27	6.14	3.70	7.05
Tertiary Sector	3.28	7.55	5.19	7.48
NSDP/GDP	1.89	5.79	4.08	5.98

Note: Period 1 = 1970-71 to 1986-87 and Period 2 = 1987-88 to 2002-03.

Source: Estimated from CSO, *National Accounts Statistics*, various issues.

there was a growth boom in the second period in transport and communication as well as in trade and hotels.

2.6 Structural Change of the Economy

Having examined the growth behaviour of the Kerala economy, the interesting question is: Has this growth resulted in a structural change in the economy? The sectoral shares to the NSDP show that the share of the tertiary sector increased dramatically while that of the primary sector decreased. It is also significant that the conventional growth transformation (from agricultural

sector to industrial sector and then to tertiary sector) has not taken place in Kerala. This is evident as the relative shares of the three sectors, in both income and employment, on an average, show that the tertiary sector has been the major contributor followed by the primary sector (Table 3.5). The tertiary sector's share increased by 37.5 per cent in income and 43 per cent in employment during 1983 to 1999-2000, whereas the primary sector's share decreased by 26 per cent and 36 per cent, respectively, during the same period. In the secondary sector, while employment share increased by 27 per cent, income share fell by 24 per cent.⁷

⁷ The time points taken coincide with the NSSO data on Employment/Unemployment.

Table 3.5: Structural Transformation of the Kerala (and All India) Economy as Seen Through Sectoral Shares of Income and Employment

Year	Primary	Secondary	Tertiary
1983			
Income	35 (41)	25 (22)	40 (37)
Employment	50 (69)	22 (13)	28 (18)
1987-88			
Income	35 (35)	22 (24)	43 (41)
Employment	52 (66)	20 (15)	28 (19)
1993-94			
Income	32 (33)	20 (24)	48 (43)
Employment	49 (65)	21 (14)	30 (21)
1999-00			
Income	26 (28)	19 (24)	55 (48)
Employment	32 (60)	28 (16)	40 (24)

Note: Figures in parenthesis gives the all India figures.

Source: For income: Government of India (2003).

For employment: For Kerala: NSSO, Report No.341/3, Report on the Third Quinquennial Survey on Employment and Unemployment, February 1988, *Sarvekshana*, Special Issue, State Series, Kerala, January 1992, NSSO Report No.409, Report on the Fifth Quinquennial Survey on Employment and Unemployment in India, March 1997 and NSSO Report No.458, Report on Sixth Quinquennial Survey on Employment and Unemployment in India.

For All India 1983: *Sarvekshana* Issue No.35, 11(4), April 1988. For 1987-88: *Sarvekshana*, Special Number, September 1990. For 1993-94 and 1999-00: Same as Kerala.

Thus, our analysis shows that both in terms of rates of growth and share of NSDP as well as employment, the tertiary sector has dominated since the 1980s and this has further strengthened in the 1990s. The State has certainly moved towards a non-agricultural economy; however, its path has not been conventional.

2.7 Sectoral Contribution to Aggregate Growth

To further identify the leading sectors of the economy, we adopt a simple growth accounting methodology by decomposing the NSDP growth rate.⁸ It can be safely concluded that the growth revival in the Kerala economy during the 1990s, as reflected in the growth rate of NSDP, is largely accounted for by the tertiary sector, which contributes more than half (Table 3.6). This is true for Period 1 also, when the primary sector contribution was negative. What is more significant is the revival even in the primary sector in Period 2.

Table 3.6: Sectoral Contribution to NSDP/GDP Growth Rate (%)

Sectors	Kerala		India	
	Period 1	Period 2	Period 1	Period 2
Primary	-4.23	14.02	27.55	17.44
Secondary	33.62	21.86	26.51	26.52
Tertiary	70.61	64.12	45.95	56.04

Source: Estimated using data from CSO, *National Accounts Statistics*, various issues.

To sum up: The Kerala economy did experience an all-round revival during Period 2; its per capita NSDP was also higher than the all-India average. The inclusion of remittances, however roughly estimated, raises per capita NSDP even higher. We also found that this resurgence in growth was mainly contributed by the growth of the tertiary sector, which accounts for more than 50 per cent of the NSDP's growth and absorbs a major share (40 per cent) of the work force; it continues to be the leading sector of growth. We can categorise the Kerala economy's service sector growth as follows: Service sector covers a broad spectrum of activities, some conducive to production, some to consumer satisfaction or an amalgam of the two. It is an engine of growth or necessary concomitant of growth resulting from the growth of skill intensive, high value added sectors such as software, communications, financial services, etc. It is also reflective of a mutation of growth – it is a sector that absorbs the shocks of the agricultural and industrial sectors leading to the growth of low-skilled service activities. That there has been considerable dynamism in its growth will become clearer from Chapter 5; here we continue with the income dimension of development, more precisely, its deprivation, that is income poverty.

3. Poverty

3.1 Income Poverty

Kerala has made substantial progress in reducing the incidence of both rural and urban poverty. Between 1957-58 and 1993-94, the headcount index of poverty in rural Kerala declined at an average annual rate of 2.4 per cent, the maximum achieved among 15 major Indian States (World Bank 1997:8).

⁸ The growth rate decomposition is given by $gv = \sum \pi_i g_{vi}$ where g_{vi} and gv are the growth rates of V_i (sectoral output) and V (total output) respectively and the weights are sectoral output shares $\pi_i = V_i/V$ (Syrquin, 1988). respectively and the weights are sectoral output shares $\pi_i = V_i/V$ (Syrquin, 1988).

Table 3.7: Head Count Index of Poverty in Kerala and India

Year	Rural Kerala	Urban Kerala	Total	India
1973-74	59.19	62.74	59.79	54.88
1977-78	51.48	55.52	52.22	51.32
1983-84	39.03	45.68	40.42	44.48
1987-88	29.10	40.33	31.79	38.86
1993-94	25.73	24.55	25.43	35.97
1999-00	9.40	19.80	12.72	26.30

Source: Planning Commission, GOI.

Table 3.7 shows that till 1973-74, the incidence of poverty in Kerala, both rural and urban, was higher compared to that in the rest of the country. In 1983-84, however, the relative position of Kerala *vis-à-vis* India was reversed – the incidence of poverty in Kerala dropped below the Indian average. This was possible because both rural and urban poverty in Kerala declined steadily throughout the last four decades, and more sharply compared to the decline in the country as a whole. Following the Planning Commission methodology, the headcount index for rural Kerala in 1999-2000 is estimated to be 9.4 per cent and that for urban Kerala is 19.8. It is well known that the 1999-00 figures are not strictly comparable with the estimates for earlier periods because of changes in the survey methodology adopted by the National Sample Survey Organisation (NSSO). A recent attempt by Angus Deaton and Jean Dreze⁹ to adjust for the differences and generate consistent estimates of poverty for 1999-00 show that the headcount ratios in rural and urban Kerala turn out to be 10.0 and 9.6, respectively, (much lower in urban areas) compared to 26.3 and 12.0 in all-India.

Kerala's growth pattern in the past decades shows, as we saw earlier, that the tertiary sector has grown much faster than the primary and secondary sectors. It can be argued that the rapid growth of the tertiary sector has been beneficial to the poor in Kerala. Ravallion and Datt (2002) find that higher farm yields, higher State development spending, higher non-farm output and lower inflation all work towards reducing poverty. Among them, non-farm output alone is found to have differential elasticity across Indian States and substantially higher elasticity for Kerala. Even though there is hardly any rural-urban difference in the human development indicators, there might be some connection between urbanisation and reduction in income poverty through the non-farm income route. In Kerala,

over a period of 40 years, the degree of urbanisation has increased from 15 per cent to 26 per cent, with the bulk of the increase having taken place during 1981-1991. This is also the period when income poverty declined rapidly. There is a positive correlation between the degree of urbanisation and the proportion of main workers in the non-primary sector (Narayana, 2003). The most urbanised districts have over two-thirds of the main workers in the non-primary sector and the least urbanised districts have less than one-fourth in the non-primary sector.

4. Poverty Reduction through Socio-economic Security

Human insecurity is both cause for, as well as an outcome of, poverty. This two-way causality – poverty as a cause and effect of human insecurity and *vice versa* – renders human life less fulfilling and debilitating. An attack on poverty, therefore, is also an effort to end human insecurity and indignity, and goes a long way in enhancing the basic human development status of the poor. In this regard, the social security measures in Kerala assume a great deal of significance. The State seems to have a better record, relatively speaking, in providing a range of welfare programmes aiming to enhance socio-economic security of her people.

It is noteworthy that the Kerala initiatives covered not only the traditional aspects of labour market interventions, pensions, etc., but also aimed at providing a certain level of support to the poorer sections. The latter was done by institutionalising a public distribution system, with a near universal coverage, providing free basic education and health care (which includes *anganwadis*, where pregnant and lactating mothers and small children are assisted), and free mid-day meal scheme up to class VII.

Successive Governments in Kerala have introduced as many as 35 social security schemes and over 3 per cent of the State budget is spent on social security measures.¹⁰ Since all schemes are State initiated, the fiscal burden it imposes has to be necessarily examined, more so in view of the hard budget constraints faced by the State Governments *vis-à-vis* the Union Government in the Indian context. The ultimate aim of the social security schemes like pensions and one-time benefits, in case of contingencies, is to provide security to the poorer and vulnerable sections of the population in order to enable them to meet adverse situations, which cause income loss and depletion of capabilities.

⁹ Deaton and Dreze (2002).

¹⁰ See Economic Review 2003.

The approach of visualising social security measures as mere costs is flawed. They are also investments, which protect the productivity and initiative to take risks of the poor and contribute to human development in the long run. Nevertheless, they do impose an immediate fiscal cost on the State budgets in the short run and as argued in Chapter 1, there appears to be some relationship between such interventions and high rates of 'open' unemployment.

In this section, we review in brief, some of the prominent socio-economic security measures that seem to have had an impact on poverty alleviation. This, in turn, has helped in advancing the basic human development status of the poor. In other words, the discussion here is focused on certain aspects of protective security. In particular, the section seeks to survey the various special welfare schemes initiated by the State Government,¹¹ and examine the problems in their implementation, welfare and fiscal impacts. Perhaps, the most important protective social security measures in Kerala have been the food security system with three sub-components: a) Public distribution system for all the households, b) Free noon meal scheme for school children, c) Supplementary nutrition programme for children in the age group of 0-4 years; old age pension for poorer sections; housing security and welfare funds for unorganised sector workers.

4.1 Public Distribution System

It took almost a quarter of a century to establish a public distribution system in India as part of the public policy on food security (see Mooij, 1999). In Kerala, the system was expanded during 1965 when the State was undergoing an acute food shortage. This shortage, as suggested earlier, is structural to the Kerala economy in that a major share of value added in the agricultural sector is through the production of cash crops such as coconut, rubber, tea, coffee, spices, etc, earning or saving considerable foreign exchange to the national economy. Even at the best of times, Kerala could not produce more than 50 per cent of its food grain requirements. This has been recognised by the Central Government, which agreed to supply food grains (mainly rice and wheat) to meet the requirements of the PDS. Covering nearly all households in Kerala, the PDS "contributed to improving a wide range of human development indicators that are closely related

to access to food and alleviation of poverty."¹² This resulted in the establishment of a large network of ration shops throughout the State. At present (2004), there are 14,139 PDS outlets in Kerala, including 694 in the co-operative sector. The relevant details are given in Table 3.8.

However, the introduction of the new national scheme of PDS, namely Targeted Public Distribution System (TPDS) in 1997, by which card holders are differentiated between those above poverty line (APL) and those below poverty line (BPL), and charged differentially, with the subsidy now going only to BPL card holders, has detracted much from the scheme as a universal protective measure in Kerala. Before the introduction of the TPDS, about 155,000 tonnes of rice and 35,000 tonnes of wheat were sold on an average per month through ration shops in Kerala. However, with the TPDS in force, the number of beneficiaries has come down and the monthly offtake has declined to almost one-third of that in earlier times (Government of Kerala 2005: 362; also see Table 3.8). Poor quality of grain has also been cited as a reason for withdrawal.

In addition to the PDS, the State Government intervenes in the market through procurement and distribution of essential commodities with a view to controlling prices. This is done through the Kerala State Civil Supplies Corporation (KSCSC), which has a network of 851 'Maaveli' stores, 138 'laabham' markets, 10 supermarkets and 20 mobile 'Maaveli' stores, 38 medical stores, 10 petrol bunks, 4 LPG outlets and 1 kerosene depot (ibid.). The prices in these shops are lower than the open market prices by a reasonable margin. In addition, by their strong market intervention to sell essential items during festival seasons, such as *Onam*, Christmas and *Ramzan*, the State is able to provide a measure of stability to the prices of essential commodities. Although there is considerable scope for improving the organisational efficiency of the Corporation (e.g., over-staffing), intervention in the food market has helped check prices in the private trading sector.

4.2 Free Noon Meal Scheme for School Children

The notable feature of this scheme is that food is distributed free to the targeted groups. This scheme, which has an earlier history,¹³ was reoriented in 1961 (much earlier

¹¹ There are a number of Centrally-sponsored schemes also in operation which we do not discuss here. To name a few, these are 1) Integrated Child Development Services, 2) National Nutrition Mission, 3) Integrated Rural Development Programme, 4) *Swarnajayanti Grama Swarozgar Yojana* (a self-employment scheme through formation of self-help groups, capacity building, planning activity clusters, infrastructure build up, technology, credit and marketing), 5) *Sampoorna Gramin Rozgar Yojana*, and 6) *Indira Awas Yojana*. There is also a housing scheme *Valmiki Ambedkar Awas Yojana* (VAMBAY) for Scheduled Castes and Scheduled Tribes. It is to be noted that a share of expenditure in almost all the Centrally-sponsored schemes is borne by the State Government.

¹² Kannan (2000:1).

¹³ The CDS study traced its origin to the mid-1940s when "the princely states of Travancore and Cochin had established a system of free mid-day meals for poor children in the lower primary schools." (CDS-UN 1975: 35).

than the currently well-known scheme was introduced in the State of Tamil Nadu in 1982) and spread throughout the State with the commodity assistance from CARE (Co-operative for American Relief Everywhere), a consortium of US voluntary agencies. From 1964-65 to 1970-71, the scheme covered 72-73 per cent of the lower primary school children (CDS-UN, 1975). Consequent on the withdrawal of CARE's commodity assistance in the mid-seventies, repeated requests were given by the State Government for

inclusion of the scheme under the State Plan, but they were not accepted. A feeding programme with *Kanji* (rice gruel) and pulses¹⁴ was introduced in December 1984 (under the Department of Education), after the successful experience of Tamil Nadu, covering primary schools in areas in which children of fishermen / Scheduled Tribes formed the majority of students. The scheme was first extended to all Government and aided lower primary schools in the State from December 1985 and later to cover children in the upper primary classes

Table 3.8: Public Distribution System

Year	Household Ration Cards (lakh)	Ration Permits to Institutions (Nos.)	Distribution of			
			Rice ('000 M.Ts)	Wheat ('000 M.Ts)	Sugar ('000 M.Ts)	Kerosene ('000 KL)
1975	36.16	7,634	531	490	97	107
1985	43.73	7,922	1,412	110	142	235
1995	56.54	13,173	1,130	423	150	360
2000	62.62	17,528	6,566	643	152	362
2001	63.44	17,127	4,608	789	72.7	359
2002	63.83	16,769	4,234	1,397	45.47	315
2003	62.68	16,183	5,076	1,495	34.27	292
2004	64.59	15,900	4,380	1,752	36.88*	208*

Note: * = Up to September 2004.

Source: Various issues of Economic Review, State Planning Board, Kerala.

Table 3.9: Students Taking Mid-day Meals (in lakhs)

Year	No. of Students in Primary Level	No. of Students in Upper Primary Level	Total Eligible Students	Students Enrolled in the Scheme	Coverage (5) as % of (4)
(1)	(2)	(3)	(4)	(5)	(6)
1979-80	25.76	-		18.12	70
1984-85	25.01	-		14.81	59
1987-88	25.86	17.90	43.76*	32.00	73
1990-91	25.27	19.00	44.27	20.57	46
1991-92	24.72	19.30	44.02	24.07	55
1995-96	22.51	18.39	40.90	20.85	51
1996-97	21.98	18.13	40.11	24.01	59
1997-98	21.40	17.90	39.30	27.94	71
1998-99	20.78	17.61	38.39	28.08	73
1999-00	20.11	17.26	37.37	28.26	76
2000-01	19.32	17.05	36.37	27.02	74
2001-02	19.33	16.79	36.12	23.40	65
2002-03	18.80	16.14	34.94	23.40	67
2003-04	18.28	15.02	33.30	21.67	65

Note: * = Year in which the scheme was extended to students up to Class VII.

Source: Various issues of Economic Review, State Planning Board, Kerala.

¹⁴ The scheme at present provides 60 grams of rice and 30 grams of pulse items per pupil in the primary section (Standard I to VII) for 180 school days a year – this roughly corresponds to children in the age group of 6 to 12 years.

as well. Thus, the beneficiaries of the scheme correspond roughly to children in the age group 6 to 12 years. The CDS-UN (1975) study stated that *“the school feeding programme has two redistributive aspects, one in favour of lower-income groups and the other in favour of those lower age groups which are said to be particularly vulnerable to the effects of malnutrition.”* This secure redistribution in favour of the lower income groups through the lower age groups continues till today in Kerala.

Table 3.9 reports the coverage of the programme over time. The programme covered 65 to 70 per cent of the children in the age group 6-12 years. By and large, the ratio of coverage has been declining; to some extent, this may be interpreted as a sign of the declining incidence of poverty, in particular in the 1980s, as families pulled their children out of the scheme when they no longer considered it a much-needed relief.

4.3 Supplementary Nutrition for Pre-school Children and Nursing Mothers

A third and equally important component of food security is the provision of supplementary free nutrition to pre-school children and expectant or nursing mothers. This scheme is relatively recent (compared to the above two) in terms of its coverage. The CDS study, while noting the existence of such a programme, stated that *“in terms of the quantity involved, this programme is not significant”* (CDS-UN 1975: 41). However, by the late 1970s, the programme covered more than a million pre-school children, i.e., close to 40 per cent of the total number of children up to five years of age. This programme was in fact a combination of a number of schemes,¹⁵ including the now well-known national programme called Integrated Child Development Scheme (ICDS). Through a series of reorganisations, the ICDS has now emerged as the most important scheme. It is intended to provide 300 calories and 8-10 grams of protein per child up to 6 years. For pregnant and nursing mothers, the provision is 500 calories and 20-25 grams of protein per day per person. These rates are roughly equivalent to one-fourth of the requirements of the beneficiary groups. This has to be provided for 300 days in a year. In Kerala, approximately 85 per cent of the beneficiaries are children and the rest expectant/nursing mothers. About 10.9 lakh beneficiaries are now covered by the scheme. The scheme is

80 per cent supported by financial assistance from the Central Government.¹⁶

The supplementary nutrition programmes are implemented with the help of a large number of women's welfare organisations called *Mahila Samajams* and other organisations in the State. *Anganwadis* and *Balawadis* have been set up with the help of these organisations. Young, educated women in rural areas – who face the highest incidence of unemployment in Kerala – are recruited as volunteers and receive only a monthly honorarium. The 1999 rate of honorarium was around Rs. 600 per month, which is equivalent to nine days of the wages of female agricultural labourers. But there is a high social premium attached to a regular job outside the farm and hence the abundant supply of female workers at a very low wage. There is one *Anganwadi* centre for every 1,000 population in rural and urban projects and one for every 700 population in tribal areas; there are 163 projects in Kerala (151 rural and 11 urban and 1 tribal). There are 24,394 *Anganwadi* centres functioning in the State (Government of Kerala 2005: 342).

4.4 Old Age Pensions to Destitutes and Rural Labourers

This scheme is targeted only at the poor, based on their social or physical vulnerability or their status as labourers in the unorganised sector. The system of giving old-age pension has come to occupy an important place in the social security provisioning in Kerala because of its coverage progressively being extended to most rural labourers. The four most prominent schemes for old-age pension for the poor are (1) Pension to Destitutes and Widows, (2) Pension for the Handicapped, (3) Pension for Old-Aged Agricultural Labourers, and (4) Pension for Old-Aged Fish Workers. The number of pension schemes now operating in Kerala is around 17.

The pension schemes can be divided into those that are directly borne by the State out of its budgetary resources and those that are introduced through the creation of social insurance mechanisms, such as Welfare Funds. The four prominent ones mentioned above are directly met by the State. The schemes introduced through the welfare funds are yet to find a firm footing. There are problems of collection of contributions from the employers and employees. Although these schemes such as the ones for

¹⁵ The Special Nutrition Programme (SNP), Applied Nutrition Programme (ANP), Composite Programme for Women and Children (CPWP), World Food Programme supported feeding scheme, One-Meal-a-Day Scheme, Health and Nutrition Programme.

¹⁶ The Applied Nutrition and Composite Programme for Women and Children is slightly different in orientation and is also sponsored by the Central Government.

old-aged coir, cashew and handloom workers have been in existence for the last 15 years or so, there is no evidence to show that pensions are disbursed on a regular basis.

More than 60 per cent of the aged poor in rural Kerala are covered by the pensions for destitute and agricultural labourers. The old-age pension scheme was introduced in 1960 and the widowed/destitute pension was added in 1964. The agricultural workers pension was introduced in 1980. Some other pension/welfare schemes being implemented are the special pension scheme to the physically and mentally handicapped, the tree climbers' welfare scheme, (which provides assistance in case of accidents causing death or permanent disability), pension for sportsmen, World War II veterans, freedom fighters and journalists.

There are a number of schemes, which give pension below the critical minimum for subsistence of one consumption unit (which is around Rs. 400 per month at current prices), nor are these received by the beneficiaries on the expected monthly basis, but twice a year. None of these pension schemes by themselves can be the sole source of survival for the beneficiaries, and can at best act as supplementary income. Nevertheless, these schemes (both funded through the welfare boards and directly from the budget) have a lot of relevance. The assured assistance in old age and other contingencies acts as an incentive to spend on children's continued education, better health care, etc. It also raises the beneficiary's status in the family. There are also schemes for providing marriage assistance to daughters of widows and destitute mothers. There is an insurance scheme '*Mangalya*' under which assistance for marriage of adult daughters up to Rs.10,000 is paid.

4.5 Housing Security Schemes

Kerala's initiatives in providing housing security deserve special mention. The concern for housing for the poor became a matter of public policy in 1971, when the land reform legislation was finally passed in Kerala. The original intention to distribute surplus land to the landless did not materialise in any significant measure for a number of reasons (e.g. Raj and Tharakan, 1983). As a second-best solution, landless agricultural labourers were given the right to retain and own 10 cents of land belonging to landed households for whom they worked. Those who could not get such land and were homeless were

brought under a massive programme called 'One Lakh Housing' through mobilising resources from the State budget, public institutions and voluntary labour. Although the target achieved was around 56 per cent, it was a remarkable achievement in itself in such a short period of time (see CDS-UN 1975 for details).

Special schemes for providing housing security to socially and economically deprived communities are also being implemented. For landless and homeless Scheduled Caste families, Rs. 50,000 is given as grant to purchase 2 or 3 cents of land and to put up a home as designated. A grant of Rs. 35,000 is given to construct homes to all Scheduled Caste families possessing 3 to 4 cents of land but who are below the poverty line. This scheme is implemented through local self-Governments now. There is also provision for interest free loans up to Rs. 50,000 for persons belonging to Scheduled Castes with an annual income of Rs. 25,000 and possessing 4 cents of land. The poor belonging to Scheduled Castes like *Nayadi*, *Vedan*, *Mavilan*, *Karimbalan* and *Vettuvan*, if they are landless and homeless, will get Rs 60,000 for purchasing 5 cents of land and putting up a house. This is also implemented through local self-governments. The Scheduled Tribe Development Department undertakes the construction of houses with tiled or concrete roofs, at a cost of Rs. 9,000 and Rs.12,000, respectively.¹⁷ There are provisions for construction of bathroom and smokeless kitchen and for electrification also for the houses built. Special efforts are taken to avoid middlemen and encourage owners to do the construction themselves. Financial assistance is given to electrify the houses of persons belonging to Scheduled Tribes (Rs. 400 per house) as also for maintenance (Rs. 3,000 per house after seven years). In order to repair wells, an assistance of up to a maximum of Rs. 500 is also offered.

4.6 Welfare Funds for Unorganised Sector Workers

A look at the welfare measures in the nature of labour market interventions in the Indian context reveals that these were mainly intended to cover those working in the organised factory sector. To illustrate, examples like Fatal Accidents Act (1885), Workmen's Compensation Act (1923), Maternity Benefit Act (1929) and Employees' State Insurance Act (1948) can be cited. But there are also a few welfare funds for those in the unorganised sector managed by the Central Government, like the

¹⁷ These amounts may be enhanced by 20 per cent if the house is constructed in a remote area.

Beedi Workers' Welfare Fund (1976), Building and Construction Workers' Welfare Fund (1996), Cine Workers' Welfare Fund (1961) and Welfare Funds for iron ore, manganese ore and chrome ore mine workers. In addition, some State Governments have also formed welfare funds. Kerala has a unique experience in providing protective social security arrangements for its workers in the informal sector. Successive Governments in Kerala perceived the problems of workers in the informal sector as due largely to lack of definite employee-employer relationships and insecurities arising out of fluctuations in their income. The welfare funds and boards were an attempt to solve this through institutional innovations, including the tripartite fund, with the employer, worker and Government as its constituents. At present, there are 23 welfare fund boards for unorganised/informal workers in Kerala (in addition, to the Centrally-administered fund board for beedi and cigar workers). They cover a wide range of occupations and have come to be seen as an important institutional arrangement for providing a measure of social security to informal workers (Table 3.10).

Some of these welfare funds are statutory and others non-statutory. Contributions to the welfare funds are made by the workers, employers and the Government. The current organisational model is one in which a Government officer is deputed to function as the chief executive, with staff also deputed from various Government departments. A vigilant board, consisting of representation from Government, employers and employees, acts as a catalysing force ensuring its dynamic functioning. However, the State continues to wield control on crucial policy decisions.

The contribution of employers and employees is determined after taking into account a number of factors, both specific and common. Therefore, the contribution of employers, employees and Government varies across funds, as there is no uniform or fixed pattern applicable to all funds (Kannan, 2002). The diverse nature of occupations and differential earning opportunities and risks associated with them may be leading to such differences in contribution. It seems that the State contributes relatively more to the funds in which workers seem to have a lower ability to pay and vice versa.

Table 3.10: Welfare Funds in the State

No.	Name of the Welfare Fund	Year	Position
1.	Kerala Toddy Workers Welfare Fund (Toddy)	1969	Statutory
2.	Kerala Labour Welfare Fund (Labour)	1977	Statutory
3.	Kerala Head load Workers Welfare Fund (Head-load)	1983	Statutory
4.	Kerala Motor Transport Workers Welfare Fund (Transport)	1985	Statutory
5.	Kerala Advocate Clerk Welfare Fund (Adv-Clerk)	1985	Non-statutory
6.	Kerala Artisans Skilled Workers Welfare Fund (Artisans)	1986	Non-statutory
7.	Kerala Cashew Workers Relief and Welfare Fund (Cashew)	1988	Statutory
8.	Kerala Khadi Workers Welfare Fund (Khadi)	1989	Statutory
9.	Kerala Coir Workers Welfare Fund (Coir)	1989	Statutory
10.	Kerala Fishermen Welfare Fund (Fishermen)	1989	Statutory
11.	Kerala Handloom Workers Welfare Fund (Handloom)	1989	Statutory
12.	Kerala <i>Abkari</i> Workers Welfare Fund (<i>Abkari</i>)	1990	Statutory
13.	Kerala Construction Workers Welfare Fund (Construction)	1990	Statutory
14.	Kerala Agricultural Workers Welfare Fund (Agricultural)	1990	Statutory
15.	Kerala State Lottery Agents Welfare Fund (Lottery)	1991	Non-statutory
16.	Kerala Document Writers, Scribes and Stamp Vendors Welfare Fund (Document)	1991	Non-statutory
17.	Kerala Auto Rickshaw Workers Welfare Fund (Auto-rickshaw)	1991	Statutory
18.	Kerala <i>Anganwadi</i> Workers & Helpers Welfare Fund (<i>Anganwadi</i>)	1991	Non-statutory
19.	Kerala Tailors Welfare Fund (Tailors)	1994	Statutory
20.	Kerala Co-operative Employees Pension Fund	2000	NA
21.	Kerala Ration Dealers Welfare Fund	2000	NA
22.	Traders Welfare Fund Board	NA	NA
23.	Kerala Bamboo, <i>Kattuvalli</i> and Pandanus Leaf Workers Welfare Fund Board	NA	NA

The coverage of workers across the welfare funds varies. Total workers enrolled in the 22 (for which data are available) welfare fund boards by 2003-04 constitute 73 per cent of the estimated workers, numbering 68.48 lakh. Female workers outnumber males in cashew, tailoring, coir and beedi industry. In the Cashew Workers' Welfare Board, 96 per cent of the enrolled workers, and in Coir Workers' Welfare Board, 81.6 per cent of the enrolled workers are female. In Boards like the Toddy Workers', Head Load Workers' and *Abkari* Workers', above 90 per cent of the workers are male (Government of Kerala 2005: 337). It can be seen that in nine out of 22 welfare boards, there is complete coverage.

The benefits vary across funds. However, they seem to cover a number of aspects. Some of the major benefits provided are: Provident fund, gratuity, monthly pension (old age), disability and accident cover, health cover, unemployment relief, educational allowance, housing assistance, marriage assistance and funeral expense.

It is indisputable that the social security cover needs to be extended to workers in the unorganised sector, who do not have a specific employer-employee relation in an organisation. This need has now been recognised at the national level also. Kerala has, in fact, taken pioneering initiatives in this regard much ahead of many other States. But there is need for streamlining the welfare fund approach to social security, as the administrative costs far exceed the welfare expenditure in the case of a number of boards. It is a situation in which running the welfare boards has become an end in itself rather than being the means to the end of achieving social security for the target population. Serious thought has to be given to reforming the administration of the welfare boards and injecting a measure of professional management and service delivery.

These schemes are important both from the promotional and protective social security aspects.

4.7 Special Poverty Alleviation Schemes

It was the phenomenal success of the community development schemes in Alappuzha and Malappuram districts¹⁸ that prompted the Kerala Government to launch the State-wide poverty eradication programme known as *Kudumbashree*

Box 3.1: *Ashraya*

This scheme, which is a special programme for the destitute, was initiated in 101 village *panchayats* and subsequently extended to 46 more. The neighbourhood group of the *Kudumbashree* identified destitute families and trained volunteers to interact with the families to prepare family-based micro plans. Destitute families are the ones which fulfil seven of the following nine criteria: (i) *Kuchcha* houses, (ii) No access to safe drinking water, (iii) No access to sanitary latrine, (iv) Illiterate adult in the family, (v) Having not more than one earning member, (vi) Getting barely two meals a day, (vii) presence of children below 5 years, (viii) Alcoholic or drug addict in the family, and (ix) Scheduled caste or Scheduled tribe family. The scheme proposes a continuous hand-holding of the family till it comes out of destitution and monitors its progress.

Source: Economic Review (2003: 304).

(Family Prosperity), based on neighbourhood groups at the grassroots level in 1998. It is a multifaceted, women-based participatory poverty eradication programme with assistance from the Central Government and NABARD. Currently, *Kudumbashree* is the most important State Government poverty alleviation programme; it also attempts to empower women through its activities. From the NHGs, women form smaller 'self-help' groups for undertaking some economic activity. Efforts have been made by the *Kudumbashree* functionaries to diversify into innovative activities that educated young women (and men) can undertake. This programme, which has grown extensively in terms of number of NHGs and SHGs as also savings mobilised in a short period of time is discussed further in Chapter 9, since it is closely linked to local-level developmental activities. A sub-component of this programme is *Ashraya*, meant for the very poor and the destitute (Box 3.1).

4.8 Fiscal Costs of Social Security Pension Schemes

The various social security schemes have a direct and explicit bearing on the State budget. The expenditure on pension alone works out to 0.24 per cent and 2.17 per cent of the State Domestic Product and revenue receipts in 2002-03, respectively. These are by any standards very low proportions and it is difficult to argue that the expenditure incurred on pension schemes for various sections of the unorganised sector are causing excessive financial burden.

¹⁸ This was a participatory poverty reduction approach adopted in seven wards in Alappuzha municipality during 1992 and scaled up to the entire municipal area and tried out in the rural area of Malappuram district developed and supported by the Local Administration Department, Government of Kerala and UNICEF.

However, let us look at another measure. Guhan (1994) has stated that it is possible to have resources for social security at the national level by cutting military expenditure and subsidies for non-poor, and argued that doubling the proportion of social security expenditure from 1.5 per cent of the GDP to 3 per cent is feasible. In the regional context, if the State can tap more tax revenue by checking the alarming proportions of sales tax evasion and mobilise more non-tax revenue from education,¹⁹ health and for several economic services from sections of population who can afford to pay, it is quite feasible that vulnerable sections can be extended benefits that will provide the critical minimum to rise above the poverty level.

There are also multiple Centrally-sponsored schemes, whose structure is inflexible with regard to specific problems of the State and at the same time impose a fiscal burden on the State by way of requirement of matching contributions. There have already been suggestions at

the official level to transfer these existing schemes along with the funds to the State Governments. If these are translated into reality, a modest target of pension schemes at 1 or even 1.5 per cent of the State domestic product will not hinder the officially laid down targets of fiscal consolidation.

In an inter-State comparison of per capita social security and welfare expenditure (SSW)²⁰ for the population below poverty line, Kerala ranks third below Haryana and Punjab, and only marginally ahead of Tamil Nadu (Table 3.12). When the per capita SSW is computed for the whole population, it shows that Kerala ranks third below Haryana and Tamil Nadu. Bihar is at the bottom of per capita SSW expenditure.²¹

As a measure of sustainability of this component of expenditure, ratio of non-Plan to Plan expenditure is taken. It is very high for Maharashtra, Rajasthan and Tamil Nadu. It is 2.02 for Kerala. The deficit targeting approach to fiscal

Table 3.11: Expenditure on Various Pension Schemes by the State Government, 2003

Name of the Scheme (Col. 1)	Amount of Pension per person (Rs.) (Col. 2)	Number of Beneficiaries (Col. 3)	Total Expenditure in Rs. crore (Col. 4 = Col. 2 x Col. 3)
Agricultural Workers Welfare Scheme*	120	5,27,647	75.98
Kerala Widow/Destitute Pension Scheme*	110	2,08,445	27.51
Special Pension for the Disabled and Mentally Retarded Persons*	110	1,48,553	19.61
World War II Veterans*	300	5,690	2.05
Freedom Fighters Pension scheme*	3,000	8,880	31.97
Pension to Journalists*	1,400	398	0.67
Pension to Toddy Workers	100	14,929	1.79
Fishermen	120	28,130	4.05
Ration Dealers Welfare Fund Scheme	150	252	0.05
Coir Workers	100	67,000	8.04
Abkari Workers	200	97	0.02
Unemployment Assistance*	120	3,41,049	49.11
National Old Age Pension*	35 [#]	1,34,600	5.65
Unmarried Women above 50 years*	110	24,209	3.20
Total Amount		15,09,879	229.70

Note: * indicates pension schemes paid through direct budget provisions and others are through welfare funds.

[#] indicates the State's share in the national old age pension. Pension paid per person is Rs. 110, out of which Rs. 75 is the contribution of the Central Government.

Source: Computed from data given in Economic Review 2004, Appendix tables 14.9 and 14.10 in Pp.S-266 and S-267. Non-pension benefits are not included for computing expenditure.

¹⁹ In the field of education, parents who can afford higher costs of education are putting their children in private unaided schools. This will make the effort to levy user charges on education difficult as only children of parents who cannot afford higher cost of education are enrolled in Government schools. A thrust on improving the quality of education in Government schools attains importance here, as it is the prerequisite for attracting well-to-do parents to send their children, if the user charges are reasonable and less than the cost of education in private unaided schools. An elaborate discussion of the quality of education has been made elsewhere in this report.

²⁰ This is a component of the social sector expenditure, which includes certain protective and promotional measures.

²¹ We use both the indicators, as the BPL category is not the means test for many social security schemes as they have other methods of means testing. Nevertheless, per capita SSW for BPL population can also be looked at, as social security schemes are intended predominantly for the poorer sections of the population.

Table 3.12: Inter-state Comparison of Social Security and Welfare Expenditure 2001-02 (Rs. in lakhs)

State	Social Security and Welfare Expenditure (SSW)	Revenue Expenditure (RE)	SSW/RE	Plan Component of SSW (PSSW)	Non-Plan Component of SSW (NPSSW)	NPSSW/PSSW	SSW/Population	SSW/BPL Population
Andhra Pradesh	31,216	24,72,633	1.26	16,586	14,630	0.88	41.36	262.30
Assam	7,465	6,84,624	1.09	4,689	2,776	0.59	28.50	78.96
Bihar	16,509	12,56,036	1.31	2,256	14,253	6.32	16.52	38.78
Gujarat	12,309	22,71,760	0.54	3,599	8,710	2.42	25.51	181.31
Haryana	39,450	8,65,549	4.55	34,300	5,150	0.15	198.93	2,276.10
Karnataka	34,168	18,60,570	1.83	14,268	19,900	1.39	65.59	327.31
Kerala	21,772	11,66,203	1.86	7,221	14,551	2.02	67.48	530.54
Maharashtra	42,346	38,28,152	1.10	1,218	41,128	33.77	46.48	185.75
Madhya Pradesh	29,730	14,36,878	2.06	12,201	17,709	1.45	37.28	99.60
Orissa	20,830	9,87,754	2.10	9,465	11,365	1.20	58.09	123.21
Punjab	11,299	12,70,981	0.88	3,783	7,516	1.99	48.01	779.34
Rajasthan	14,727	15,94,898	0.92	1,317	13,410	10.18	27.50	179.95
Tamil Nadu	68,960	21,55,697	3.19	3,835	65,125	16.98	111.63	528.56
Uttar Pradesh	44,754	31,77,971	1.40	24,550	20,204	0.82	26.30	84.42
West Bengal	49,246	23,39,452	2.10	15,240	34,006	2.23	62.33	230.69

Note: SSW and RE are in Rs. lakhs.

Source: Computed from State Finances- A Study of Budgets of 2003-04, Reserve Bank of India, April 2004.

correction places emphasis on the deficit as a proportion of State domestic product, irrespective of how it is achieved, whether by expenditure reduction or by revenue consolidation. In such a situation, capital expenditure faces a cut. A higher proportion of non-Plan expenditure can make SSW also liable for cuts when deficit targeting is the prime objective.²² This may not happen if there is a political will and commitment towards implementing these schemes and the resistance to the cuts is strong. But streamlining of operational processes and introduction of

cost efficiency in administering the schemes are necessary and the money thus saved can go to increasing the welfare payments to vulnerable sections.

5. Concluding Observations

Chapters 2 and 3 together suggest that Kerala's development experience has been pronouncedly more impressive in various non-income dimensions of well-being than in the income dimension, though its attempts at reducing deprivation through various social security measures have met with considerable success. As stressed earlier, the perspective informing this report is one that reckons income too as being an important component of development. From this standpoint, Kerala's achievement on the income front has been a mixed one.

Up until the mid to late 1980s, Kerala's outstanding performance in various non-income dimensions of achievement was nowhere matched by its performance in either per capita income growth or consumption expenditure-related poverty. In the matter of poverty, group inequality is still a matter of concern for Kerala as we see in the following chapter: Absolute deprivation



²² Non-Plan expenditure is the recurring expenditure for schemes outside the Plan outlay. It is the expenditure incurred directly through the budget for non-Plan schemes and schemes started during the previous Plans. This distinction between Plan and non-Plan for assessing fiscal strength of a State is not always a desirable criterion to be adopted, as this does not consider the social impact of expenditure.

continues to be largely concentrated among the marginalised communities, such as the tribals (*adivasi*) and fishing community (though the latter, once an 'outlier' community, has made significant advances in human development since the mid 1980s) and the hiatus between the Scheduled Castes and non-Scheduled Castes is a distressing symptom of a still uncured aspect of horizontal inequality in the State.

As reviewed in this chapter, the growth and poverty prospects of Kerala's economy displayed a substantial improvement from the late 1980s, fuelled by remittances from overseas earnings, the growth of the service sector and the synergistic relationship between human development and income growth, along with State initiatives in the attack on poverty in terms of social

security provisions. There was a dramatic decline in poverty in the 1990s. An attack on poverty is also an effort to end human insecurity and indignity, and thus goes a long way in enhancing the basic human development status of the poor. In this regard, social security measures in Kerala assume significance, as the State has maintained a relatively better record in providing a range of welfare programmes aiming to enhance socio-economic security.

While Chapter 5 considers the income and non-income dimensions of development together, pointing to areas of both mutual reinforcement and mutual conflict between the goals of human development and growth, we first examine some of the horizontal and spatial inequalities in human development in Chapter 4.

Human Development in Kerala

SPATIAL AND HORIZONTAL INEQUALITIES

1. Introduction

The regional and social group disparities in terms of income and human development is a concern in most developing countries. The National Human Development Report 2001 – India documented several dimensions of disparities in human development. Notable among them are the rural-urban, inter-State as well as within States in terms of districts. The report noted that “At the State level, there are wide disparities in the level of human development” (Government of India, 2002:4). The report underlined that while there have been improvements in the human development index and human poverty index during the 1980s, inter-State disparities have persisted. Within this national scenario, Kerala emerges as an exception because of its low disparity not only between rural-urban areas but also between different districts. In this chapter, we briefly review the district-wise disparities¹ in human development and related indicators in Kerala within a context outlined in the earlier chapters, which suggested a more egalitarian growth of the Kerala economy. However, one of the major failures of human development achievements in Kerala has been the persistence of social group differentials² despite such a growth process, which to the extent possible, we highlight in this chapter.

¹ Spatial inequalities.

² Horizontal inequalities.

2. Human Development Index

It goes without saying that Kerala continues to rank at the top among Indian States with respect to the human development index (as per 1981, 1991 and 2001 estimates), with continuous improvement. As already seen elsewhere, the human development index of Kerala increased from 0.685 in 1991 to 0.773 in 2001. What is remarkable here is the almost uniform distribution of the development within Kerala. To be more precise, as Table 4.1 shows, the district-wise human development indices of Kerala for 2001 all lie above 0.740. (Details about the methodology for constructing these human development indices are given in the Technical Note at the end of this Report.) In fact, one district (Ernakulam) comes out with a HDI as high as 0.80. The low-rung occupant is Malappuram district with an index of 0.749, which itself lies far above the index compared with other regions in India. The hilly districts of Idukki and Wayanad are also in the same range as Malappuram.



As already stated, what is striking nevertheless is that there is little variation in human development indices across the districts in Kerala. The coefficient of variation is negligible, around 2 per cent. Also, note that the component indices (of real per capita income, health and education) are distributed with minimum variability across the districts (though the

distribution of the district-wise per capita income in PPP terms does appear with higher variability). Some caution is necessary in the case of income, which as we discussed earlier, does not include remittances accruing, especially to some districts in the northern part of Kerala (Table 3.3 in Chapter 3). The low income

Table 4.1: District-wise Human Development Indicators and Human Development Index, 2001

Districts	Real per capita Income (PPP\$) 2001-02	Life Expectancy at Birth 2000	Literacy Rate (7+) 2001	Gross Enrolment Ratio 2001	Income Index	Health Index	Education Index	HDI	Rank
Thiruvananthapuram	3,102	75.2	89.4	94.3	0.573	0.837	0.910	0.773	9
Kollam	2,885	77.1	91.5	96.1	0.561	0.868	0.930	0.787	6
Pathanamthitta	2,969	76.7	95.1	97.0	0.566	0.862	0.957	0.795	3
Alappuzha	2,989	77.1	93.7	96.8	0.567	0.868	0.947	0.794	4
Kottayam	3,286	75.6	95.9	97.0	0.583	0.843	0.963	0.796	2
Idukki	3,484	72.4	88.6	86.1	0.593	0.791	0.878	0.754	12
Ernakulam	3,646	75.9	93.4	99.1	0.600	0.849	0.953	0.801	1
Thrissur	3,117	76.4	92.6	101.4	0.574	0.857	0.950	0.794	5
Palakkad	2,513	76.1	84.3	99.5	0.538	0.851	0.894	0.761	10
Malappuram	1,881	75.6	88.6	96.8	0.490	0.843	0.913	0.749	14
Kozhikode	2,858	75.4	92.5	98.7	0.560	0.839	0.945	0.781	8
Wayanad	2,909	73.5	85.5	94.9	0.563	0.809	0.886	0.753	13
Kannur	2,719	75.6	92.8	101.0	0.551	0.844	0.955	0.783	7
Kasaragod	2,777	75.7	85.2	94.0	0.555	0.846	0.881	0.760	11
Kerala	2,895	74.6	90.9	97.3	0.562	0.827	0.930	0.773	
Coefficient of Variation (%)	14.52	1.70	4.14	3.93	4.70	2.510	3.370	2.380	

indicated for Malappuram district, which is an outlier district and thus raises the variability, does not take into account the significant amount of remittances accruing to that district. More than 40 per cent of the total international migration from Kerala is accounted for by this district alone. Thus, it seems safe to assume only marginal inter-district variability in respect of the income dimension. And, this strengthens our earlier argument that the overall situation is one of an absence of any significant disparity in human development between the 14 districts in Kerala. Viewed from an all-India context, this should be reckoned as a remarkable achievement.

3. Gender-related Development Index

Kerala is also ranked at the top in the gender-related development index (GDI) among major States in India. The lowest rank was observed in Bihar followed by Uttar Pradesh. Further, there has been substantial improvement in the GDI in Kerala in tandem with the HDI. The GDI was 0.697 in 1997 and increased to 0.746 in 2001. Among the districts in Kerala, Alappuzha has been in the fourth position with respect to HDI; however, it ranked first position with respect to GDI. Ernakulam district secured second rank, while Malappuram district is ranked in the lowest position with respect to GDI. Kozhikode district was in the eighth



position in HDI, however, it is pushed to thirteenth position in respect of GDI. Analogous to HDI, the disparity among the districts seems to be insignificant with respect to GDI as well. The coefficient of variation in the GDI is only 3 per cent and it ranges between 3-12 per cent among the GDI component dimensions.

Table 4.2: District-wise Gender-related Development Index (GDI), 2001

Districts	Equally Distributed Index for				GDI Rank
	Income	Health	Education	GDI	
Thiruvananthapuram	0.486	0.835	0.910	0.743	9
Kollam	0.495	0.867	0.930	0.764	6
Pathanamthitta	0.478	0.859	0.957	0.765	5
Alappuzha	0.518	0.867	0.947	0.777	1
Kottayam	0.490	0.842	0.963	0.765	4
Idukki	0.559	0.790	0.877	0.742	11
Ernakulam	0.525	0.848	0.953	0.775	2
Thrissur	0.493	0.856	0.950	0.766	3
Palakkad	0.487	0.850	0.892	0.743	10
Malappuram	0.313	0.841	0.913	0.689	14
Kozhikode	0.406	0.838	0.945	0.730	13
Wayanad	0.514	0.810	0.886	0.736	12
Kannur	0.472	0.843	0.951	0.755	7
Kasaragod	0.509	0.844	0.879	0.744	8
Kerala	0.483	0.825	0.930	0.746	
Coefficient of Variation (%)	12.3	2.5	3.4	3.0	

4. Generalised Deprivation

It is also interesting to see the disparity among districts in terms of the incidence of poverty in Kerala. However, it is not possible to discuss the incidence of poverty at the district level, since a more desirable approach would be to examine the incidence of deprivation that is not based on household consumer expenditure. Owing to unavoidable constraints of data availability, therefore, we have had to resort to assessing deprivation at the disaggregated level of the *district* in non-income terms. Accordingly, we have constructed an index of (generalised, non-income) deprivation for all districts in Kerala. The index of deprivation is based on deprivation in four basic necessities for well-being, such as housing quality, access to drinking water, good sanitation and electricity lighting (see Technical Note to this Report on the methodology). Data from the 2001 Census has been used for constructing such a deprivation index. Deprivation in these commodities can have a deleterious impact on human development and the well-being of the people.



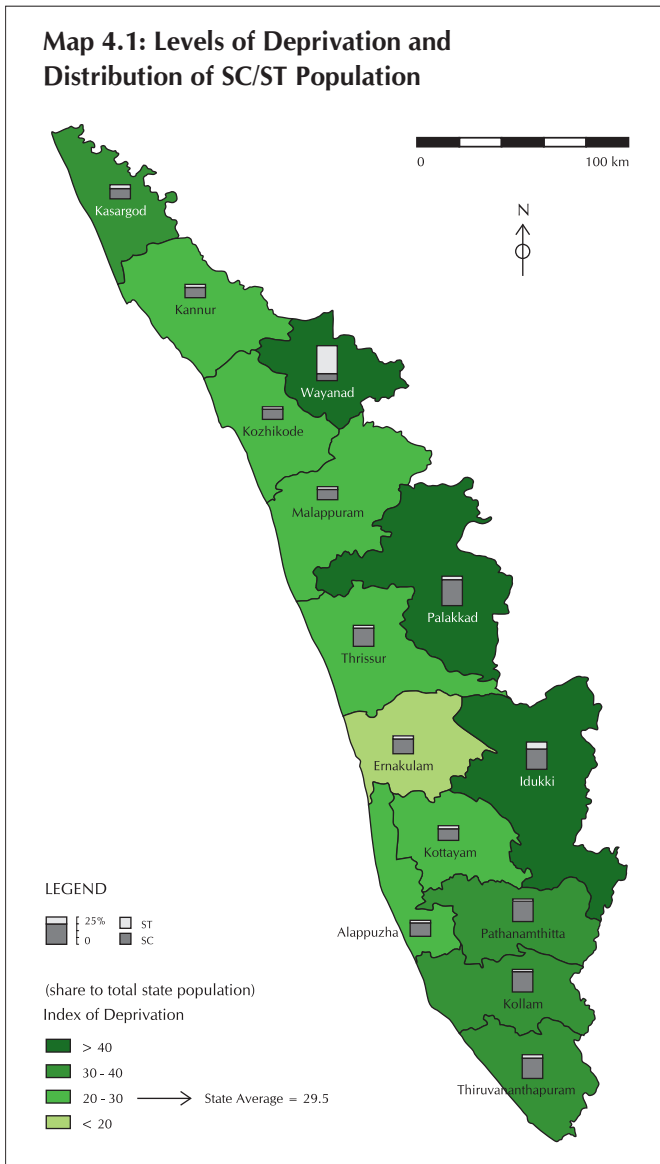
Table 4.3 shows this index of deprivation for Kerala by districts in 2001 (and across social groups to be discussed in the next section). The incidence of deprivation is about 30 per cent in Kerala, within a range of 15.5 (for Ernakulam district) and 46.3 (for Wayanad district), which is significantly above the official head count index of poverty. Wayanad, Idukki and Palakkad districts have the highest deprivation indices of above 40 per cent.

Thiruvananthapuram, Kasaragod, Pathanamthitta and Kollam districts lie below this group, with deprivation indices of 30-40 per cent. Ernakulam district is the only outlier, with the least deprivation of less than 20 per cent. Map 4.1 shows the spatial disparity in the index of deprivation in Kerala. It appears, therefore, that though there is no significant disparity with respect to HDI and GDI, significant variation is found in the generalised

Table 4.3: District-wise Index of Deprivation by Social Groups, 2001

Districts	SC	Rank	ST	Rank	Others	Rank	All	Rank
Thiruvananthapuram	54.4	13	60.1	10	37.0	11	39.5	11
Kollam	47.8	8	50.7	5	27.7	7	30.4	8
Pathanamthitta	50.3	10	54.6	7	27.8	8	31.1	9
Alappuzha	45.9	6	40.1	3	27.7	6	29.6	6
Kottayam	42.1	4	43.1	4	23.1	3	25.1	3
Idukki	40.8	2	65.3	13	40.9	13	42.7	13
Ernakulam	29.3	1	37.2	1	14.0	1	15.5	1
Thrissur	42.0	3	37.5	2	21.9	2	24.7	2
Palakkad	52.9	12	65.3	12	37.1	12	40.4	12
Malappuram	46.2	7	56.8	8	26.5	4	28.6	5
Kozhikode	48.8	9	50.9	6	26.6	5	28.3	4
Wayanad	51.5	11	66.0	14	41.6	14	46.3	14
Kannur	43.8	5	57.7	9	28.7	9	29.7	7
Kasaragod	62.7	14	61.3	11	34.1	10	37.6	10
Kerala	45.5		57.9		26.9		29.5	
Coefficient of Variation (%)	16.5		19.4		26.1		25.8	

Map 4.1: Levels of Deprivation and Distribution of SC/ST Population



deprivation indices among the districts in Kerala, as revealed from the estimated coefficient of variation, which is about 26 per cent.

One of the indicators that go into the deprivation index, viz., source of drinking water away from the house, varies significantly among the districts in Kerala with a coefficient of variation of 43 per cent (Navaneetham, 2005, HDR Background Paper). But in the case of the other three indicators, the coefficient of variation is lower. Therefore, the higher disparity found in the distribution of the deprivation index among the districts could be due to the higher disparity with respect to the source of drinking water being away from the house.

5. Horizontal³ Inequalities

Though Kerala's development experience showed significant improvement in literacy, health and poverty reduction among the general population, it is very relevant to understand how this benefited different social groups in society. Unequal access to political/ social/ economic resources by different social groups can reduce individual welfare in the losing groups over and above what their individual position would merit because their self-esteem is linked to the progress of the group (Stewart, 2002). There is no denying one's location within the network of social affiliation substantially affects one's access to resources (Chakraborty, 2001). We discuss some of the developmental indicators by social groups.

5.1 SC/ST Population by Districts

Table 4.4 gives the district-wise distribution of SC/ST population, which reveals a significant concentration of STs in three districts, Wayanad (37 per cent), Idukki (14 per cent) and Palakkad (11 per cent) accounting for over 60 per cent of the total tribal population in the State; the SC population is not similarly concentrated. It is striking to note that these are also the most 'deprived' districts as shown in Table 4.3; more on this in the section on poverty.

5.2 Sex Ratio

As discussed in Chapter 2, sex ratio is one of the indicators used for understanding gender discrimination in the population. The sex ratio among social groups is favourable like the overall sex ratio in Kerala while for all India it is relatively more unfavourable to SCs. Also, it is significant to note that the sex ratio has increased for both SCs and STs since 1971 in Kerala (Table 4.4). The large increase in the sex ratio among tribals in 2001 is rather intriguing and needs to be probed further – could it be on account of increased out-migration of males among the ST groups?

In the three districts in Kerala (Palakkad, Idukki, Wayanad) where STs constitute a significant proportion of population, the overall sex ratio is also favourable to females, though it is lower than the State average in Idukki and Palakkad. Sex ratio among SCs compares very favourably with the overall ratio in each district (Table 4.5).

³ While we have tried to include SC/STs and OBCs to cover specific social groups besides 'others', some tables may relate only to SC/STs.

Table 4.4: Sex Ratio (F/M) of Scheduled Castes/Scheduled Tribes in Kerala/India, 1971 to 2001

Census Year	India			Kerala		
	Total Population	Scheduled Caste	Scheduled Tribe	Total Population	Scheduled Caste	Scheduled Tribe
1971	930	935	982	1,016	1,012	995
1981	934	932	984	1,032	1,023	992
1991	927	922	972	1,036	1,029	996
2001	933	936	978	1,058	1,048	1,027

Source: Census of India, 2001, Kerala, Primary Census Abstract.

Table 4.5: District-wise Population of Scheduled Castes and Scheduled Tribes, and Overall Sex Ratio, 2001 Census

Districts/State	Scheduled Caste		Scheduled Tribe		Sex Ratio (F/M)	
	Per cent	Share to State	Per cent	Share to State	Scheduled Caste	Scheduled Tribe
Thiruvananthapuram	11.5	11.9	0.6	5.7	1,075	1,113
Kollam	12.5	10.3	0.2	1.4	1,058	1,121
Pathanamthitta	13.2	5.2	0.5	1.8	1,058	1,057
Alappuzha	9.5	6.4	0.1	0.9	1,056	1,001
Kottayam	7.7	4.8	0.9	5.0	1,034	1,044
Idukki	14.1	5.1	4.5	14.0	1,007	998
Ernakulam	8.5	8.4	0.3	2.8	1,032	978
Thrissur	11.9	11.3	0.2	1.3	1,066	1,105
Palakkad	16.5	13.8	1.5	10.9	1,054	984
Malappuram	7.9	9.1	0.3	3.4	1,031	1,046
Kozhikode	7.0	6.4	0.2	1.6	1,043	1,031
Wayanad	4.2	1.1	17.3	37.4	993	1,019
Kannur	4.1	3.2	0.8	5.5	1,051	1,039
Kasaragod	7.5	2.9	2.5	8.3	1,009	1,005
Kerala	9.8	100.0	1.1	100.0	1,048	1,027
Coefficient of Variation (%)	36.5	51.0	202.2	128.7	2.3	4.5

5.3 Poverty

While Kerala's performance in reducing overall poverty is indeed remarkable, there is evidence of disparity across various social and economic groups. Poverty in the State is more concentrated in certain segments of the population, such as traditional fishermen, cashew and coir workers, and the people belonging to Scheduled Castes and Tribes. Besides, the seasonal nature of certain occupations, forces people to migrate and adopt various coping strategies.

The incidence of rural poverty among SCs in the State in 1983 was higher than that of India, that is 62 per cent as against 58 per cent. However, Kerala has registered a marked reduction in poverty among the SCs along with poverty reduction in the general population. By 1993-94, Kerala outpaced India in reducing poverty among SCs, bringing it down to

36 per cent as against 48 per cent for all-India. While Kerala has succeeded in reducing poverty among SCs further to 14.6 per cent in 1999-2000, the all-India percentage was much higher at 36 per cent. With respect to the rural ST population, though Kerala has succeeded in reducing the level of poverty from 37 per cent to 24 per cent between 1993-94 and 1999-2000, India achieved a reduction from 52 per cent to 49 per cent only. However, rural poverty among STs in Kerala still remains more than two-and-a-half times that of the all Kerala rural population below the poverty line, which stands at 9.4 per cent; the SC population below the poverty line in urban Kerala declined from 63 per cent to 32 per cent during 1983 to 1993-94, and further to 24 per cent in 1999-2000. Thus, disparity in urban poverty between the SCs and the general population has narrowed down, the latter being about 20 per cent in 1999-2000 (following the Planning Commission methodology for estimating rural and urban poverty).

Table 4.6: Distribution of Households by Social Groups and Household Type, 1999-2000 (Rural)

Social Groups/ Household Type	Self-employed in Non-agriculture	Agricultural Labour	Other Labour	Self-employed in Agriculture	Others	Total
Scheduled Tribe	10.71	33.92	12.50	23.21	19.64	100
Scheduled Caste	4.72	55.79	26.60	3.43	9.01	100
Other Backward Classes	22.81	16.86	25.35	17.71	17.01	100
Others	18.36	19.32	21.32	20.36	20.43	100

Source: Nair and Menon (2006, forthcoming).

The decline in poverty among SCs and STs could be broadly attributed to the increase in wages of rural labourers, a range of anti-poverty measures undertaken by both the Central and State Governments, and to the growth of the general economy, which, in turn, raises the average level of income. However, what is still a matter of concern is the over-representation of both SCs and STs in the population below the poverty line in the State.

It has been argued (Chapter 3) that a major contributory factor to poverty reduction in Kerala was the growth in urbanisation and its positive correlation with non-agricultural output/employment; there might be some connection between urbanisation and reduction in income poverty through the non-farm income route. Perhaps, a clue as to why SCs and STs have not benefited from a more equitable provisioning of social services lies in the lower diversification of these groups into non-agricultural activities, the proportion of which is higher in the more urbanised districts (Narayana 2003). In Kerala, the dependence of the SC/ST population on agriculture is much higher than the general population (Table 4.6).⁴ Although the overall proportion of main workers in the non-primary sector among the SCs is about 17 per cent

lower compared to the general population, the proportion is close to 50 per cent in the most urbanised districts (Narayana *ibid.*). This is not so for the ST population; the proportion of which in the non-primary sector is low, irrespective of the district they belong to. Further, the district with a large concentration of STs (Wayanad) is the least urbanised and has shown practically no growth in this respect. The lower economic diversification, which also impacts on level of wages earned in agriculture, does get translated into poorer material conditions of life and in turn constrains access to basic social amenities, whether it is housing, electricity lighting, good sanitation and drinking water.⁵

This is reflected in a much higher index of deprivation for SCs and STs as shown in Table 4.3; it is higher by 70 and 115 per cent, respectively, as compared to other caste and community groups in the State. The STs in Wayanad district are the most deprived social group, followed by the STs in Idukki and Palakkad, and among the SCs, the most deprived are in Kasaragod district. As expected, in all districts, 'other' caste groups are the least deprived. Interestingly, the disparity in deprivation does not exist between SCs and other caste groups in Idukki and it is low in Wayanad.

This situation gets further aggravated by landlessness/small sized holdings among the SC and ST households in the State, which is still a crucial developmental issue.⁶

5.4 Landholding

The average size of landholding among the STs is 0.68 acres, which is higher than that for the SCs (0.32 acres), OBCs (0.40 acres) and others (0.63 acres) (Nair and Menon 2006, forthcoming). Though the average size of land ownership is higher among the STs, given the historical experiences of land encroachment, acquisition of forest land by the Government and tribal displacement, the STs remain vulnerable, the



⁴ It is also higher than the proportion in many other States.

⁵ Kannan and Hari (2002).

⁶ For detailed accounts, see K. Ravi Raman (2003). "Breaking New Ground: Adivasi Land Struggle in Kerala", *Economic and Political Weekly*, March 9; Bijoy, C.R. and K. Ravi Raman (2003). "Muthanga: The Real Story: Adivasi Movement to Recover Land", *Economic and Political Weekly*, May 17.

proportion of households with more than one hectare declining over time. Landlessness is higher among the SCs than STs as also the 'others' (Nair and Menon, Ibid).

Both the Central and State Governments have made various efforts to protect and promote the land rights of the SC and ST population. Yet, the outcome is far from satisfactory, given the requirement of these households, largely dependent on land. The surplus land declared in Kerala as part of land reforms was itself low at only 1.35 lakh acres. Out of this 47 per cent of the area was distributed among vulnerable sections as on March 1996. It has benefited nearly 43 per cent of the SCs and 5 per cent of the ST population. The average size of land made available to the SCs was only 41 cents; and

for STs, it was 71 cents. As per the national guidelines, 50 per cent of the surplus land declared is to be distributed among the SCs and STs. While the all-India situation meets this stipulation, Kerala lags behind with only 47 per cent of the area declared surplus having been made available to Scheduled Castes and Tribes thus far. Hence, the achievement on this front lags behind expectations, which has led to the recent struggles for land rights in Kerala by *adivasi* organisations (Ravi Raman, 2003).

5.5 Education

What gets obscured by the very high aggregate levels of literacy in the State are the horizontal disparities

Table 4.7: Level of Education among Social Groups, 1999-2000 (Rural)

Level of Education	ST	SC	OBC	Others
Illiterate	26.36	23.60	17.36	11.67
Literate Without Formal Schooling	0.33	1.80	0.93	0.86
Below Primary	16.12	17.05	18.31	12.30
Primary	12.50	20.99	19.76	14.93
Middle	26.32	25.67	27.52	26.00
Secondary	8.22	7.49	10.72	19.50
Higher Secondary	5.26	1.67	3.20	7.44
Graduation above	4.90	1.73	3.20	7.30

Source: Nair and Menon (2006, forthcoming).

Table 4.8: Literacy Rate by Social Groups, 1991 Census

Districts	Non-SC/ST			Scheduled Caste			Scheduled Tribe		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Thiruvananthapuram	94	87	90	87	78	82	82	67	74
Kollam	95	89	92	85	74	80	69	56	62
Pathanamthitta	98	95	96	90	83	86	76	71	73
Alappuzha	97	92	94	94	85	89	80	69	74
Kottayam	98	95	96	94	87	90	90	87	89
Idukki	94	88	91	81	64	73	68	57	63
Ernakulam	96	90	93	87	78	82	81	72	77
Thrissur	95	89	92	84	74	79	55	48	51
Palakkad	91	80	85	75	60	67	40	29	35
Malappuram	93	85	89	85	74	79	50	38	44
Kozhikode	96	87	92	91	81	86	57	48	52
Wayanad	94	86	90	82	69	75	58	43	51
Kannur	96	88	92	90	80	85	65	52	59
Kasaragod	91	78	85	70	57	64	75	58	66
Kerala	95	88	91	85	74	80	63	51	57
Coefficient of Variation (%)	3.5	6.5	5.0	7.6	11.9	9.5	20.1	26.1	22.7

Source: Census of India, 1991.

(and gender as we discuss later). Using the NSSO data for 1999-00, (as the 2001 Census data for literacy rates by social groups have not yet been released), we find that over a quarter of the ST population was illiterate compared to just a little over 10 per cent for 'others'; the situation is slightly better for SCs followed by OBCs. However, it is at the higher levels that the differences are more striking, especially from 'secondary' level onwards. Hence, the deprived groups lag behind the 'others' in this basic functioning achievement, which has played a central role in Kerala's development process.

Across all districts, the literacy rates of SCs and STs are lower than the non-SC/ST population (as given by the 1991 Census); the variability is higher for females in the SC/ST groups (Table 4.8). Further female literacy among the ST population is significantly lower in the districts of Palakkad (29 per cent), Malappuram (38 per cent), Wayanad (43 per cent).

5.6 Fishing Community

Another 'outlier' social group, the marine fishing community, numbering about 769,000 in 1996, living in 222 fishing villages spread along the Kerala coast, reports

Box 4.1: Fishing for Sustainable Change

"This is a struggle for the future – that of ours, and of the fish."

This was the famous statement made by Joyachen Antony, one of the early leaders of the historic socio-ecological struggles of the fisherfolk of Kerala in the early 1980s. Joyachen did not live to see the fruits of his efforts. He was snatched away by the sea. But his dreams, for a development process that would ensure proper management of the fishery resource and a convivial livelihood for the people involved, gradually took shape. Fishing communities, which were outliers in Kerala's 'high quality of life development experience' even as late as 1980, soon commenced a catching up process. That change in the quality of life is possible in a short period of time has been proved beyond doubt. This was spurred by the collective action of the community from below, and responsiveness to this pressure by the State from above.

The viable long-term solution for housing in fishing villages is for the Government to acquire private and Government lands that lie outside the bounds of the Coastal Regulation Zone (CRZ), but close to the sea/inland waters, and allot space for planned housing estates for active fishermen.

Upscaling the levels and quality of education of the future generation is another top priority, so that they have the advantage of the traditional knowledge systems of their parents and yet are conversant with the latest developments in technological and institutional arrangements. This can be achieved by expanding the existing network of residential fisheries' technical schools, with classes starting from the primary level.

The human resources for creating more educated and responsible children in fishing communities should be found in the fishing communities themselves, in particular young girls – those who have gone through a minimum of 10 years of schooling – could be trained as primarily village workers; and be given the responsibility for setting up child-care centres, noon meal schemes, food-for-work, local small-scale employment schemes, saving and credit unions, sanitation and hygiene education programmes, etc., at the *panchayat* level. The liberal financial resources available for poverty alleviation programmes with the state can be effectively utilised.

No substantial improvement in health will be possible without breaking the vicious cycle of well water pollution resulting from the provision of sanitation using the septic tank technology. Given the high water table and porous soils in the coastal tracts, rain harvesting, desalination and dry composting are the only stable remedies for achieving sustainable health conditions. These will require a mix of individual and collective investments, the social benefits of which will be very high.

To sustain change beyond the current generation, far greater innovations and investments are called for, which we need to think outside the conventional frameworks. More committed action is required by the State and the community.



high child mortality, low literacy, low electrification of houses, low access to drinking water and poor sanitation. The persistent deprivation of this community demonstrated that, 'State-led public action, guaranteeing widespread access to basic facilities required to attain a high quality of life, is never adequate. Without genuine people's participation in the form of collaborative and/or adversarial collective action, such well-intended actions serve little purpose (Kurien, 2000:197). However, it is interesting to note that such collective action appears to have paid off dividends in a fairly short period of time since the late 1980s, as the author notes in subsequent research, with significant improvements in literacy of men and women, access to land, housing, electrification and sanitation. However, health conditions, notoriously poor among the fisherfolk, have not shown commensurate improvement.

While the achievements, as a result of community initiative and State action, have been considerable in the two decades after 1980s, these changes have taken place within the confines of the *status quo*. For example, educational improvements have been limited to facilities and arrangements that already exist; land and housing improvements have been restricted to the parameters of the existing spatial confines of fishing villages. This is highly inadequate, if the community is to transcend to a significantly higher and sustainable level of human development (Box 4.1).

6. Concluding Observations

The analysis, on the whole, seems to suggest that variation in deprivation between the districts in Kerala is more likely to do with social characteristics rather than with regional characteristics. It has been noted that disparity in human development indicators among the districts is low. However, the incidence of non-income poverty measured through the index of deprivation varies significantly between the districts. This higher variation could be due to higher deprivation in the districts of Idukki, Wayanad, and Palakkad. It is also to be noted that these districts do not vary much with respect to human development index and gender development index as compared to other districts. However, these districts, which also have a higher share of SC/ST population in the State, need special attention for implementing policies and programmes to improve the basic well-being indicators such as quality of housing, access to water, good sanitation, and electricity lighting. Though social disparity has narrowed down over the years and the extent of vulnerability may be low compared to all India, attention should be paid to improve the well-being of the weaker sections of the population in Kerala.

Human Development and Economic Growth

CONGRUENCE AND CONFLICT

1. Introduction

As already discussed, human development indicates enlarging people's choices in a way which enables them to lead longer, healthier and fuller lives. As has been stated by Ranis et al (2000), higher levels of human development in addition to being an end in themselves affect the economy through enhancing people's capability and consequently their creativity and productivity. Available evidences suggest that as people become healthier, better nourished and educated, they contribute more to economic growth via enhanced capabilities.

Regarding education, variation in the rate of return with the level of education is often interpreted as the most straightforward indicator of the impact of education on productivity. It also represents critical elements in the development of key institutions essential for economic growth. Positive effects of education encompass all spheres of economic activities. In agriculture, evidence shows productivity differentials between farmers using modern technologies and traditional ones.¹ Contribution of education to technological capability and technical change in industry is well established, as a plethora of studies have shown positive correlation between technical change of the firm and the skill and educational level of the workers and entrepreneurs. As the modern services sector is an amalgam of activities, which are knowledge-based/intensive, education and, thus human capital, directly goes in as a factor of production.

¹ In Nepal, the completion of at least seven years of schooling increased productivity in wheat by over a quarter and rice by 13 per cent. (Jamison and Moock, 1984).

Fogel's Nobel Prize winning work first brought out the extent of long-term changes in nutrition and health, and their importance for long-term economic growth. A number of studies provide further historical evidence of the importance of health for economic growth.² Contemporary macroeconomic studies find that health indicators have substantial effects on levels of income and, for poorer countries, on their rates of growth. These cross-country studies lend support for a significant impact of life expectancy on economic growth. A study on the productivity gains associated with stature rises in Korea and Norway found high contribution of health to economic growth.³ A direct effect of the improvements of health and nutrition on labour productivity has been associated with calorie increases in the case of developing economies.

Recent theoretical literature on growth reverts to the same themes slightly differently. In their aim to endogenise technical progress, they emphasise education and research and development. In one version, the emphasis is on higher level of education of the workforce, as it enhances the productivity of capital and raises the productivity of the entire workforce via innovations. As externalities are generated with higher levels of education, the extent of 'spillovers' too becomes substantial. In another version, the route to higher growth is via investing in research and development. This has a dual effect not only on the firm's profitability but also on the productivity of other firms consuming its output, not to say of the effects of interactive learning. The crucial input here again is education.

In the present context, with higher levels of integration of hitherto closed economies into the world market, the nature and type of interactions with external economies depend on the level of human development in the domestic economy. The nature of factor endowments and thus the composition of trade are influenced by the level of education and skills of a country's labour force. This, in turn, determines the outcomes of the process of globalisation, in terms of higher export earnings, favourable terms of trade and thus the macro performance. Thus, translating openness into higher levels of growth

² For example, see Arora (2001).

³ Weil (2001).

requires high levels of human development, with the possibility of regions becoming permanent laggards otherwise.

Human development affects per capita income growth via population growth also. The demographic dividend arising out of demographic transition also extends to the supply of labour force, with a shift in the working age population. The huge bulge in the working age population in the second phase of age structural transition has the potential to act as an engine of growth. Moreover, fertility decline apart from raising per capita incomes also presents the possibility of better quality of children, with respect to education and health along with increase in female labour force participation. However, these cumulative effects get manifested only in the long run.

It should be noted that these demographic specificities of Kerala, with the role of out-migration and remittances as both the consequence of human development and the cause of growth, and education as a crucial background feature of the growth process define a congruence of the processes of human development and economic growth. At the same time, Kerala presents certain specificities that suggest the other side of the congruence, a conflict between the two processes. This conflict, in turn, is defined in terms of some possibly inhibiting influence, which certain categories of infrastructure provisioning, such as banking (low credit-deposit ratio), power (shortage) and public sanitation, along with its poor quality might have on the prospects of growth.

In this chapter, an attempt is made to analyse these aspects of the congruence of, and conflict between, the processes of human development and economic growth.

2. Congruences and Synergies

2.1 Demographic Dividend

As noted earlier, Kerala is now in the final stage of demographic transition, with low fertility and mortality, and its related age structural transition, with an almost stable young age dependent population, increasing working age population and older population. The shift in the age structure produced by the demographic transition has several social and economic implications. First, the increase in the supply of labour force, both in absolute and relative terms, can positively influence economic growth. The huge bulge in the working age population has greater potential to act as an engine of economic growth, if they are absorbed in the labour market. However, in the case of limited opportunity for employment in the local economy, the large bulge in the working age population may result in people migrating to other cities within the country or to other countries where employment opportunities are greater. Once people emigrate, the modernisation and technology brought from such destinations may facilitate innovation and adaptation of technology in the local economy. Demographic transition also reduces average duration of child-bearing years. Once women complete childbearing, they will be available for work, if given an opportunity. The increase in female labour force participation will, in turn, increase household income, which may influence investment in the quality of children.

Second, fertility decline has immediate direct impact on the size of the school-going population. This will have implications both at the micro and macro level. The cost of education and health will be reduced due to a decline in the number of children per household. Keeping the cost per child constant, fertility decline will contribute towards better quality of children with respect

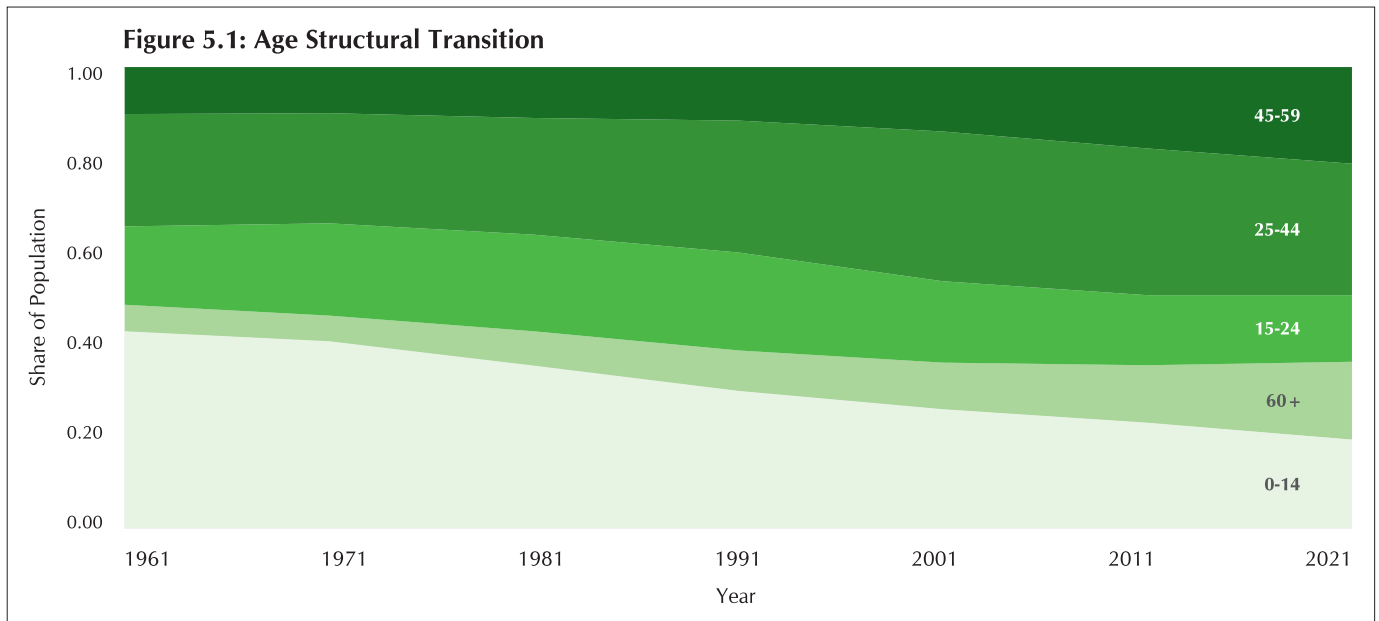
to education and health. Similar implications can also be observed at the macro level. Several studies have reported that among other factors, the demographic transition and the changing age structure of the population has played a favourable role for rapid per capita income growth, particularly in East and South-East Asian countries. (Bloom and Williamson, 1997; Mason, 2001). However, the mechanisms through which demographic transition has had an effect on economic growth seems to be different in Kerala.

2.1.1 The Age-structural Transition

We start with a discussion of the changes in the age structure of Kerala's population from the 1960s. In order to draw future implications for growth, the projected age structure till 2021 is used (for details on projection assumption, see Tharakan and Navaneetham, 2000). The age structure of the population is classified according to the lifecycle stages and its behaviour in the general economy as 0-14 (young), 15-24 (youth), 25-44 (prime working), 45-59 (middle) and 60+ (old age). As the young population (0-14) are dependent on the adults for their consumption, they incur health and education expenditures. The youth population (15-24) also consume health and education; however, the pattern of consumption behaviour is likely to be different from that of the young due to differences in needs and services. The prime working age population (25-44) save only a little. The population in the middle age group 45-59 are likely to earn a higher income because of their experience and also to have a higher savings rate than the 25-44 age group. Old age people (60+), on the contrary, depend on others for meeting their consumption needs. Studies have shown that age share of the variables have substantial effects on per capita GDP growth rate (Lindh and Malmberg, 1999; Andersson, 2001; Navaneetham, 2004).



Figure 5.1 shows the age structural transition in Kerala from 1961 to 2021. It is evident that the age structure of the population did change significantly between 1961 and 2001. The share of the young age dependent population has consistently declined from 1961 onwards. The decline picked up momentum in 1971. Around 43 per cent of the total population were in the age group of 0-14 in 1961 and this share declined to 30 per cent in 1991 and is likely to reach 19 per cent in 2021. The old age dependent population increased from 5.8 per cent of the total population in 1961 to 8.8 per cent in 1991 and is likely to reach 17 per cent



Source: Navaneetham, 2005, HDR Background Paper.

in 2021. The share of the working age population, both prime and middle, (age group 15-59), which provides an opportunity for economic growth, increased from 51 per cent in 1961 to 61 per cent in 1991 and reached 64 per cent in 2001, with little prospects for further increase. In fact, the projected population shows there will be a marginal decline in the share of working age population in 2021 and this trend is likely to continue. Since the age group 15-59, is a broad one, with different effects for different groups on the economy, it is important to study the dynamics within this age group. Thus, we find that the share of the youth population increased from 17 per cent in 1961 to 21 per cent in 1991 and started declining thereafter. Similarly, the share of the prime working age population (25-44) increased from 24 per cent in 1961 to 32 per cent in 2001, but here too, with a declining prospect. The late working age population, on the contrary, increased from 10 per cent to 14 per cent in 2001 and is projected to reach 21 per cent in 2021.

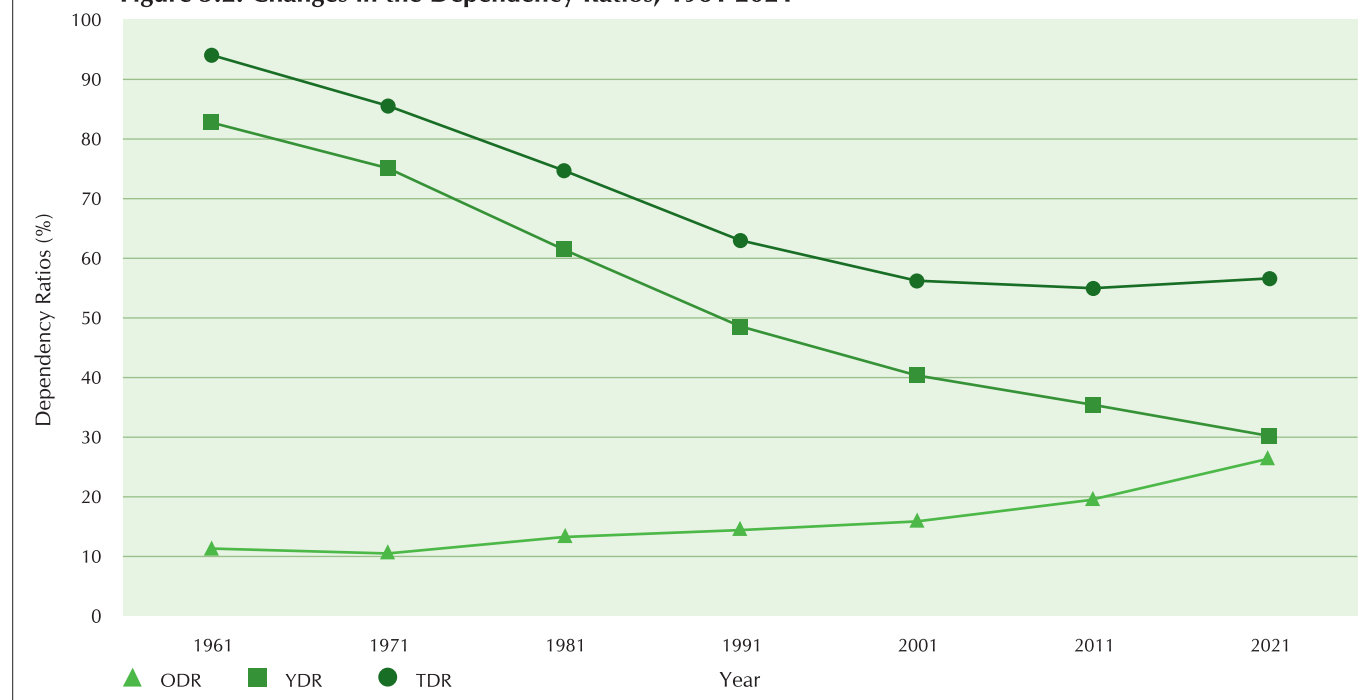
2.1.2 Dependency Ratios

Figure 5.2 shows the changes in the dependency ratios in Kerala. There were 83 young dependents (0-14 ages) for 100 working age population in 1961. This has declined to 49 in 1991 and is expected to go further down to 30 in 2021. Note that the tempo of decline was higher between 1971 and 2001, though from 2001 onwards, the decline is expected to slow down. Against this, the old age dependency ratio (ODR) increased from 11 in 1961 to 14 in 1991. Its acceleration is likely to be greater from

2001 onwards. By the year 2021, there will be about 26 old people for every 100 working age population. Though the total dependency ratio declined since 1961 mainly due to the decline in the young dependency ratio (YDR), it became stable by 2001 because the effect of the decline in the young dependent population was more than compensated for by an increase in the old age dependent population. This, in turn, implies that the total dependency ratio is likely to go up from 2011, mainly due to the large increase in the share of old age dependent population.

2.1.3 Growth Rate of Working Age Population

Since labour productivity is lower in the age group of 15-19, as this age group is mostly engaged in education, the growth rate of the working age population in the age group of 20-59 is considered. Not much difference is found between the growth rate of the working age population and the total population during the period 1961-71 (Table 5.1). However, after this period, the growth rate of the working age population appears significantly higher than that of the total population till 1991-2001, and is projected thereafter to converge again. Note that the higher growth of population in the age group 45-59 continues for a long time and may act in a positive way on the economic growth through their higher propensity for savings. As already mentioned, the rate of savings is expected to be higher in this age group, as they would have by then completed the investment for raising their children and for household necessities.

Figure 5.2: Changes in the Dependency Ratios, 1961-2021

Source: Navaneetham, 2005, HDR Background Paper.

Table 5.1: Growth of Working Age Population, 1961-2021

Population (in '000)	1961	1971	1981	1991	2001	2011	2021
All Age Groups	16,904	21,347	25,454	29,099	33,082	36,742	39,523
Working Ages (20-59)	7,277	9,158	11,770	14,830	18,347	20,873	22,478
15-24	2,867	4,275	5,320	6,147	5,810	5,557	5,716
25-44	4,129	5,106	6,460	8,327	10,746	11,686	11,246
45-59	1,714	2,122	2,793	3,383	4,619	6,474	8,279
Growth Rates (%)							
Total		2.33	1.76	1.34	1.28	1.05	0.73
Working Ages (20- 59)		2.3	2.51	2.31	2.13	1.29	0.74
15-24		3.99	2.19	1.45	-0.56	-0.45	0.28
25-44		2.12	2.35	2.54	2.55	0.84	-0.38
45-59		2.14	2.74	1.92	3.12	3.38	2.46

Source: Tharakan and Navaneetham (1999).

It is significant to note that the net addition to the population in the age group 15-24 has been declining since 1991. The same trend is translated to the next age group of 25-34 after 10 years, that is, from the year 2001, when the former age group matures. Since the overall unemployment rate is mainly from this age group of 15-34, these demographic changes in the age group are likely to ease the unemployment problem in the State. Also, the reduction in the net supply of labour force in the younger age groups may increase wages for them, thereby increasing real income levels of their families.

2.1.4 Demographic Transition and Human Development

Though several studies have identified an inverse static relationship between female education and fertility levels, recent researches show that there is a dynamic relationship too. Studies have shown that higher female literacy was a dominant factor for fertility decline, which started around the 1960s in Kerala. This decline in fertility was not only among educated parents, but also among the illiterate and low economic status groups. This enabled parents in

general to send their fewer numbers of children to school, including girl children, who otherwise would take care of siblings and be held up at home. The availability and spread of educational facilities in the State absorbed them into the school system. Therefore, the fertility decline that started around the 1960s contributed to the expansion of school enrolment in the later years.

Fertility decline in Kerala also contributed towards improvement in the health of children. With a reduction in the family size, the total health cost for children in general declines, keeping constant the cost per child. This gives scope for the poor to access better health care for their fewer number of children. Decline in infant mortality rate, in turn, leads to fertility decline with some time lag, and this constitutes a virtuous cycle of decline in total fertility: Better health leads to reduction in infant mortality rate, which leads to fertility decline. There is every reason to see this virtuous cycle having its dynamic run in Kerala. During the 1970s, the reduction in the infant mortality rate was faster than during the earlier period. Between 1951-61 and 1961-71, infant mortality rate declined by 28 points, that is, around 23 per cent. However, between 1961-71 and 1971-81, infant mortality rate declined by about 40 points, the highest-ever decline. With a lag of 10 years of fertility decline, the infant mortality rate decline gained a momentum during the 1970s. Also, the nutritional intake of children, though below normal requirements, has been

increasing since the 1970s. The sizeable money saved as a result of the reduction in family size stood in good stead for providing better food to children, since the couples were conscious about the quality of life for children.

2.1.5 Demographic Bonus and Economic Growth

It now goes without saying that fertility decline in Kerala has been beneficial for advancing school education and improving the health of children. The demographic bonus in Kerala is not just a large supply of labour, but of children having been educated at and above middle school level, especially during the 1990s. Table 5.2 presents the trends in the potential labour supply (age 20-59) by levels of education in Kerala from 1981 to 1998, which shows that the stock of the illiterate declined significantly for both males and females. Also, the stock of the literate and 'those completing primary schooling' declined significantly for males while for females, it remained stable. It is interesting to note that those with middle and secondary-level education increased by more than three times during the 1990s from the 1981 level for both males and females. In the case of males, the stock in the tertiary sector increased by two times between 1981 and 1998 and for females, by three times. Significantly, during the 1990s, higher education among females increased much more than among males. This might be partly due to the increase in the volume of educated emigrants among males.

Table 5.2: Potential Labour Force (Age 20-59) by Level of Education

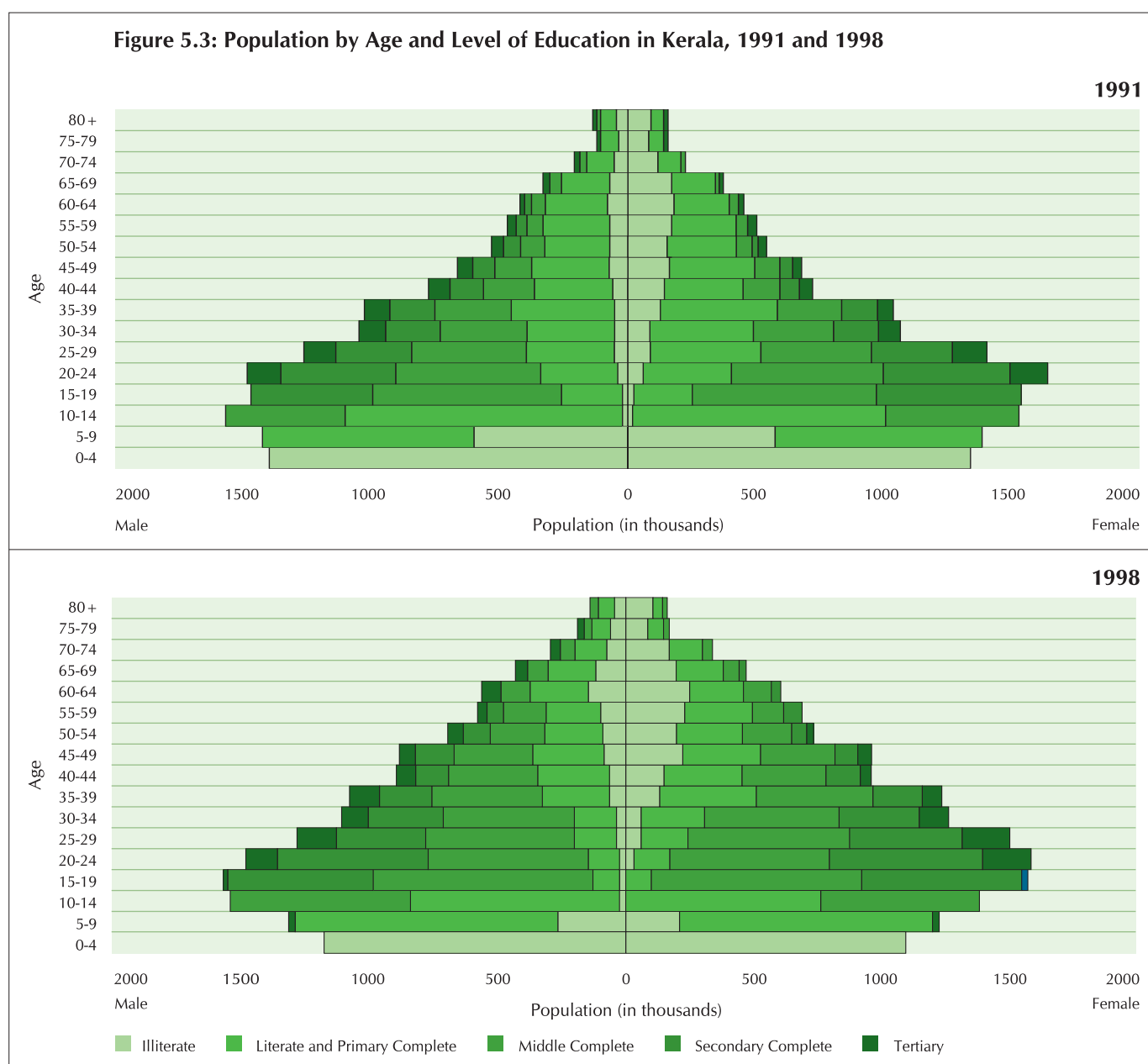
	Male (Population in thousands)			Female (Population in thousands)		
	1981	1991	1998	1981	1991	1998
Illiterate	750	448	262	1,677	1,034	737
Literate & Primary Complete	2,642	2,507	1,941	2,461	2,804	2,438
Middle Complete	1,220	2,162	3,120	1,008	1,933	3,155
Secondary Complete	753	1,479	1,923	583	1,341	1,884
Tertiary	325	630	650	216	493	665
Total	5,689	7,226	7,896	5,944	7,606	8,878
Percentages						
Illiterate	13.18	6.20	3.32	28.21	13.59	8.30
Literate & Primary Complete	46.43	34.69	24.58	41.40	36.87	27.46
Middle Complete	21.44	29.92	39.51	16.96	25.42	35.53
Secondary Complete	13.24	20.47	24.36	9.81	17.64	21.22
Tertiary	5.72	8.72	8.23	3.63	6.49	7.49
Total	100	100	100	100	100	100

Source: Census Reports, various years; Kerala Migration Survey, 1998.

Figure 5.3 shows the age pyramid of the population by level of education in Kerala for 1991 and 1998. The illiterates are concentrated in the ages 25 and above. The stock of females with tertiary education in the younger groups 20-29 is greater than that for males in 1998. Future potential labour force will be mostly with middle and above levels of education, as the stock of primary level education has declined in the age group 15-19 between 1991 and 1998. Around 70 per cent of the males and 65 per cent of the females in Kerala attained 'middle level and above' education by 1998. And this large stock of educated labour force was absorbed (though inadequately) both in the global and local markets.

To summarise, demographic changes in Kerala seem to have played a significant role for enhancing human development and subsequently influencing economic growth and poverty reduction in Kerala. However, it is also important to mention that public policy has played a crucial role for improving education and health, whereas demographic changes could have been a facilitating factor. Further, changes in the age structure of the population had an impact on economic growth through international migration. This is in contrast with East and South-East Asian countries, where growth in industrial and service sectors provided employment opportunities for their rapidly growing working age population (Mason, 2001).

Figure 5.3: Population by Age and Level of Education in Kerala, 1991 and 1998



Source: Estimated from Census, 1991 and Kerala Migration Survey, 1998.

Note: As the 1991 pyramid is based on Census and 1998 pyramid is based on Survey, these are not strictly comparable.

Since employment opportunities were limited in Kerala due to low industrial growth, the rapidly growing and surplus working age population was absorbed for employment in the Gulf countries. In other words, the *demographic window* worked as a push factor for large-scale migration that brought remittances to the State, which induced a consumption-based economic growth in Kerala. The next section analyses the quantum of remittances, the consumption boom and investment initiatives.

2.2 Migration and Reforms: The Catalysts

2.2.1 Remittances and Growth

Taking human resource as a product of the State, Kerala may be one of the largest exporters of resourceful minds and gifted professionals to other parts of the country, a process that has its origins in the World War II period. The accelerated process of emigration, especially the more recent emigration to the Gulf and to North America, has had its impact on every facet of Kerala's economy and society. However, this impact was not sufficient for bringing about an accelerated growth in the State; an enabling environment appears to have been provided by the economic reforms specified below.

The turnaround in growth in Kerala came immediately after the economic reforms that were initiated during the mid-1980s. However, for a low income, weak industrial base economy like Kerala, the economic reforms *per se* could not have triggered a high growth regime spanning over a period of one-and-a-half decade. Hence, the fuel for it must have been external, in the form of the flow of remittances. An important outcome of economic reforms, i.e., the discontinuation of the fixed exchange rate system in favour of a market-determined one, seems to have boosted remittances. It meant a higher growth in remittance income as a result of the depreciation of the Rupee. Thus, it is the dynamics of the linkage of human development, through migration and remittances, with economic reform that has helped Kerala's economy break out of the low growth/stagnation trap it was in prior to 1987.

Until the 1970s, international migration from Kerala had been relevant only for its demonstration effect and as a means for upward social mobility. A small number of emigrants had gone to South-East Asian countries, Sri Lanka, Myanmar, Malaysia, Singapore, etc., and their

emigration had enabled their families to improve their socio-economic status, as judged by land ownership, good housing and better education for children. The positive gains of these pioneers was a major factor contributing to the acceleration of emigration from the State to the other regions of the world when opportunities emerged. Large-scale emigration from the State began only in the 1970s. The Middle East countries were the destination of 95 per cent of the emigrants, with Saudi Arabia alone accounting for nearly 40 per cent of the total. Outside the Arab world, the principal destination of Kerala emigrants was the United States, which accounted for 2.2 per cent of the total.

As already stated, the revival of growth in the Kerala economy since the late 1980s brings into prominence the role of remittances, attempts to quantify which have been detailed in Chapter 3. The increase in per capita income as a result of the remittances has, in the presence of economic reforms, had two positive effects in favour of growth: Increase in (i) consumption and savings of the people and (ii) new investment initiatives in Kerala.

2.2.2 The Consumption Boom

The consumption pattern in Kerala has undergone significant changes due to the flow of remittances as well as the nature of demographic transition. The average per capita consumer expenditure in Kerala was below the national average till 1977-78. Since then, this has far exceeded that of India, progressively reaching 41 per cent above the national average in 1999-2000. This could not have been possible but for the accrual of extra income in the form of remittances.

Besides the phenomenal rise in consumer expenditure, it is its compositional change that is of further interest here, as it provides enough indications of its impact on various sectors of the economy. It is a well-known fact that as income increases, the proportion of expenditure by the households on non-food items also rises significantly. This, in turn, also implies substantial flourishing of trade and related services. And in the context of Kerala, we find this development rule very much in force, as is evidenced in the results from the three surveys by National Sample Survey Organisation (NSSO; 35th round, 1983; 52nd round, 1993-94; 55th round, 1999-2000) that provide proportions of consumer expenditure on food items and non-food items.⁴

⁴ See Pushpangadan (2003: Appendix 1) for details.

The structural shift in consumption, as brought out in Table 5.3, indicates that the main source of consumer demand was for non-food items in the 1990s. While total demand for food (State's income, including remittance) increased by 56 per cent in the second period, the demand for consumer durables more than doubled. It can be seen that the contribution of remittances to consumer durables-led growth in the 1990s was 17 times more than that in the first period. It is here the reinforcing contribution of economic reforms had its significant impact. The unregulated waves of the reforms made it possible to release pent up demand in the case of a number of goods and services hitherto unavailable. Thus, there was a building up of an effective demand, backed by increased income, in the Kerala economy for certain commodities, which remained unrealised in the face of substantial supply constraints. In short, the role of emigration and remittances was to remove the effective demand constraint in a developing economy, with the reforms removing the supply constraints.⁵

It is this increased demand, in general, and that for non-food items, in particular, that worked behind the economic revival of Kerala in the 1990s, the impact mainly being in trade and related services. In other words, it is in the tertiary sector that the human development induced growth found its fuller realisation. This also means that the productive sectors of the Kerala economy could not utilise in investment the immense savings generated from the emigration boom.

The reasons are quite clear in terms of Kerala's record in labour relations and the absence of compensating factors, such as a well-functioning economic infrastructure. The former indicates that the wage effect induced by remittances via pressure on an inter-related labour market reinforced the institutional power of labour (in terms of early and high level of unionisation) and stood to drive away most of Kerala's indigenous labour-intensive industries, such as coir processing/manufacturing, cashew processing and tile manufacturing. The prospect for a transition to a technologically advanced, high productivity industrial sector was thus aborted by the power of the organised labour. Technological change, especially mechanisation, was also opposed in agriculture, where the problem was compounded by the failure of public investment in such productivity-enhancing critical infrastructure as land and water management. It was in the background of this inability of the productive sectors to attract investment that the tertiary sector flourished in quick-profit ventures to take advantage of the growing consumer demand.

The increased income induced a boom not only in consumption but also in 'savings' as reflected in the high growth rates of bank deposits (at 19 per cent per annum during the period 1992-2002) and in a sense, in the low credit-deposit ratio of about 40 per cent. Thus, Kerala has had a high potential for higher economic growth – both demand induced (expanding market) and resource propelled (potential for investment).

**Table 5.3: Food and Non-food Demand by Source of Income and by Sub-periods
(1980/81 prices, Rs. crore)**

	Average Consumer Expenditure		
	1980-81 to 1990-91	1990-91 to 1999-2000	Period 2 ÷ Period 1 (% change)
Net State Domestic Product			
Food	739.0	813.9	10.1
Non-food	513.4	847.1	64.9
Sub-total	1,252.5	1,661.0	32.6
Remittances			
Food	28.1	356.1	1,167.3
Non-food	19.8	342.1	1,628.7
Sub-total	48.4	698.2	1,342.6
Net State Domestic Product plus Remittances			
Food	772.6	1,205.6	56.0
Non-food	528.3	1,153.6	118.4
Grand Total	1,300.9	2,359.2	81.4

Source: NSSO: 1983; 1993-94; and 1999-2000 Rounds.

⁵ Kannan (2004).

2.2.3 Investment Initiatives

Yet another contribution of the economic reforms was to removing a number of minor and major constraints on investment and import of technology and raw materials. Along with market-determined exchange rate, this set of reforms was to provide a far more favourable climate for investment, given the availability of investible resources in the State. Kerala was, however, unlucky to have any initiatives come up in the large-scale industrial sector, in the face of her image problem as an 'investor unfriendly State'. But it did some wonders in the small and medium-scale industrial sector, where a newly emerging class of entrepreneurs, with superior educational skills and exposure to the global markets, were able to successfully make use of the industrial and agricultural climate by taking on the challenges posed by the economic liberalisation (Box 5.1). And this explains the revival in the two productive sectors of the economy, though this was not as impressive as the revival in the tertiary sector.

Traditionally an industrially backward State, devoid of heavy industries, Kerala has witnessed a spurt in industrial activity in recent times driven mainly by small and medium industries. This is evident from the sheer increase in the number of factories as reported by the Annual Survey of Industries. From 1990 to 2000, the number of factories increased from 3484 to 4853, a whopping 40 per cent increase. But if one examines the average capital employed per unit, there is a tendency towards small and medium units.

An examination of the success stories of more than 100 industrial units spread across different industries reveals that the educational attainments and the spill-over effects from integration with the world market contributed considerably to their success. The units include state-owned, co-operatives, partnerships and single management enterprises. Their activities encompass both the 'new' as well as the 'old economy'. Apart from the traditional industries, like coir and cashew, production of high value-added products, drawing up resources from the agricultural sector has been a new tendency. Quite often, the technology levels are high in these new units, which have accessed foreign technology without inhibition. It should be emphasised that the educational attainments of the workers and managers have shortened their learning curves. Imported technologies are often adapted to local conditions, as in the case of food products, to suit local conditions and demand. In the new economy, activities for which human capital is of importance, information technology (IT) has been the major activity.

Box 5.1: The Entrepreneurial Revolution in Kerala

IT has been recognised as a thrust area of development by the Government of Kerala since the state has a reserve of educated and technically qualified manpower. Spread over 156 acres, and about 1.5 million sq. ft. of built-up space, Technopark in Thiruvananthapuram hosts over 55 IT and ITES companies employing over 5000 IT professionals, including five Capability Maturity Model (CMM) Level 5, two CMM Level 3 and several ISO 9001 certified companies. Technopark offers a unique confluence of advantages like high quality physical infrastructure, power and data connectivity; highly trained technical manpower; most flexible regulatory framework; highest incentives; and the best law and order environment in India.

Some units including female-headed firms have earned a reputation in this field. These units show excellent performance in the programming of software solutions, some of which could even co-ordinate all the activities including harvesting and marketing in plantation sector. This 'seed to sale' package got worldwide attention and was selected as the best software solution among those of 856 companies from 76 countries. It was the first Indian firm, which got the "back office logo" from Microsoft. It is interesting to note that these successful entrepreneurs have post graduation and even PhD as their educational qualification. Organisation of IT courses is another important field of this fast growing sector, through which vast employment opportunities have been created.

These new units established by the newly emerging class of entrepreneurs, with superior educational skills and exposure to global markets, have been able to make use of the industrial climate successfully by taking on the challenges posed by the economic liberalisation.

Diversification of activities has been another feature of this new entrepreneurship. Quite often, they get into related areas, reaping economies of scope. This is mainly driven by the discovery of new markets for their products. The extent of diversification is the highest among entrepreneurs who started food processing units. The discovery of the Middle East/Gulf market has helped them raise enough financial resources and technical know-how to start new ventures. These can be viewed as the direct evidence of spill-over effects, which could be reaped only with high quality human capital.

Another encouraging trend is the considerable presence of female entrepreneurs, of which some instances have already been given (See Box 5.1). Higher educational levels of females have helped them to start their own ventures, both in related areas of family businesses as well as new ventures. Production of readymade garments is one industry where we find evidence of this. Knowledge intensive industries like production and assembling of electro-mechanical components, used in electronic, communication, data processing and defence sectors, have seen female-headed units thrive well.

Other sectors too have witnessed changes basically driven by higher educational attainments. However, these changes were manifested differently in the services sector and agriculture. While in agriculture, it resulted in the diversification and introduction of new crops like vanilla, in the services sector, proliferation of activity centred on the tourism and hospitality industry. This created an advantage in terms of non-tradeable goods in the economy, the competitive advantages of which could be sustained, as these were location-specific unlike in the case of tradeable goods.

It should be noted that investment (in terms of gross fixed capital formation at current prices)⁶ in the major sectors of the Kerala economy and in general *did* show promising rising trends, especially during the 1990s. Specially striking was the steep trend in the investment behaviour in the two productive sectors of the economy. And, this goes well with their output growth behaviour, which we have found earlier to be impressive.

2.3 Education and Growth

From the perspective of new growth theories, the link between human development and growth has to be drawn through the human capital route. In the Kerala context, it is not human capital – in the sense growth theorists will incorporate it in growth models – that has propelled growth. It is rather the outstanding achievement in human capabilities, specifically *basic education* that has created a variety of opportunities for the people of Kerala, particularly in the present context of an increasingly integrated world. Complex linkages seem to exist between early achievements on the human development front, seeking opportunities in the labour markets outside Kerala, and remittance-driven growth in consumer demand that is

behind the service sector growth. Expansion of the goods producing sector depends on comparative advantage *vis-à-vis* other states, but services are ‘non-tradeable’ and therefore expand as local demand increases. The domestic economy has largely failed to reap the benefit of high levels of human capital in the direct manner as suggested by the growth theories and the experiences of the high performing countries of East Asia. Hence for Kerala, the human capital-based growth seems to have followed a rather different, indirect trail.

3. Dissonance?

3.1 Infrastructure Development vs. Industrialisation

It is generally said that Kerala is in the grip of a low investment syndrome thanks to irresistible labour militancy and inadequate economic infrastructure, for example power. The former stands to mark a higher stage in the historical development of the economic and political consciousness of the labour, which in-itself is valuable, though Kerala is often unique in the excesses in its instrumental value (Box 5.2).⁷ Given the ideological and social-cultural tradition of participation through organisation and mobilisation in Kerala,⁸ this, however, appears inescapable. Against this, the inadequacy of economic infrastructure felt in the State as a constraint on investment initiatives is generally attributed to budgetary discrimination followed for a long time by the Governments, as a result of prime ‘priority and precedence’ being given to the development of social infrastructure. Ingrained in this is a tendency to view economic infrastructure ‘as competitive, rather than as complementary demands in development planning’.⁹ Thus, to the extent that a development planning exercise presupposes such a complementarity condition and to the extent that the State was actuated by a development perspective, infrastructure development in general could not be discriminatory.

That Kerala ranks high in the infrastructure indices among the Indian States itself is an effective counter to the general belief that it has neglected economic infrastructure and focused resources on social ones. It indicates that it has fared better in many of the economic infrastructure as also in the social ones (see Chapter 2).

⁶ The data is from the Bureau of Economics and Statistics, Thiruvananthapuram.

⁷ For some case studies in the power sector of Kerala, see Kannan and Pillai (2002: Chapter 5).

⁸ See Kannan and Pillai (2003a and b).

⁹ CDS-UN (1975: 153).

Box 5.2: The Headload Workers

A phenomenon, which has been unique to Kerala, is the category of casual worker, who is referred to as a 'headload' worker, almost exclusively male. The Kerala Headload Workers' Act, 1978 (Act 20 of 1980) defined a headload worker as "a person engaged directly or through a contractor in or for an establishment whether for wages or not for loading or carrying on head or person or in a trolley any article or articles for wages". This definition, of course, does not include those workers employed by private parties for domestic or non-commercial purposes or those who are self-employed. Hence, the worker could be 'attached' to an employer, 'unattached' and scattered. While there is no clear statistical evidence, a study suggests that there was a quantum increase in their numbers in the 1970s, the period of severe unemployment in Kerala, just prior to the exodus to Gulf countries and only a miniscule proportion was in the category of 'attached' headload worker. The end of the 1970s also saw the beginning of the 'consumption boom' in Kerala, with the inflow of remittances from migrants and trade in goods gained considerable momentum, generating a demand for headload workers. This category of worker also perhaps reflects the archetype of a casual worker, unskilled, with no regularity of work or employer and hence scattered and completely 'unprotected'. While such characteristics act strongly to weaken the bargaining position of workers, the booming trading activities gave them some advantage. What drew wide attention to these workers was the emergence of a strong trade union movement among them, which was used to extract exorbitant rates for loading/unloading and the 'attached' workers became powerful enough to procure a wage even without performing any work. Their demands, even for domestic purposes (shifting house), could sometimes be outrageous and it became common for individuals to shift at night to avoid a confrontation. While this behaviour was condemned, their vulnerability was also recognised and hence public policy attempted on the one hand to regulate such malpractices (through the Headload Workers' Act, 1978) and provide some form of social protection and make work more regular (through the Kerala Headload Workers' Welfare Fund, 1984) on the other. Some of the excesses of such workers did strengthen the poor image of Kerala as an investor unfriendly state, especially among the smaller entrepreneurs. Even though such unlawful practices may have come down, particularly in respect of domestic purposes, industry/commercial circles continue to report this as a sizeable deterrent to investment. A new Act, The Kerala Loading and Unloading (Regulation of Wages and Restriction of Unlawful Practices) Act, was passed by the Kerala Assembly in 2002. It emphasises the right to employ workers of own choice, specifying establishments such as industrial parks, export processing zones, tourism protected area, markets, etc. Wages would also be regulated in the manner notified.

No doubt, the primary fuel for the phenomenal growth in communication and banking came from overseas emigration. And transport infrastructure has always been a corollary to social infrastructure. It is significant to note that the development of such infrastructure is as vital for industrialisation and urbanisation, as for the emergence of the service sector, but Kerala has moved in the direction of becoming a tertiary economy rather than an industrial one. Thus, despite a thriving banking sector, with an annual average growth rate of nearly 20 per cent in deposits (since 1988), and a wide transport and communication network, resources could not be translated into industrial investment in sufficient strength. Was it, as an argument goes, on account of non-accessibility to credit?

3.2 Low Credit-Deposit Ratio

Despite the spectacular growth in deposits, the credit-deposit ratio (CDR) of Kerala has been one of

the lowest in India. It remains more or less stagnant at 42 per cent. It reflects that credit disbursements are not on par with deposit mobilisation in the State. Note that CDR is a product of the ratio of the number of credit accounts to deposit accounts and the ratio of credit amount per account to deposit amount per account. While the first of these ratios for Kerala (ratio of the number of credit accounts to deposit accounts) is one of the highest in India, the second (ratio of credit amount per account to deposit amount per account) is much lower, because the credit amount per account of Kerala is one of the lowest in India, though the deposit amount per account is comparable with the all-India level.¹⁰ The low credit amount per account, in turn, indicates credit deployment in favour of 'small' customers, such as in small-scale/mini industries, and for housing and vehicle loans. Evidently, large industries are left out;¹¹ and the causes are worth analysing.

¹⁰ Government of Kerala (2002: 359).

¹¹ Ibid.

3.3 Power Shortage

Still another argument highlights the inadequate supply of other infrastructure, for example, power. It should be noted that unlike other economic infrastructure, such as banking and communication, development of power infrastructure as well as that of irrigation and road infrastructure in India had a strong element of social welfare orientation over considerations of profits or returns. Thus, in effect, the development policies of such economic infrastructure even in Kerala were akin to those for social infrastructure. Unlike in the latter, however, these were marked by a conspicuously absent or weak cumulative public action and organised public demand, and hence, their development was erratic.

That the priority and precedence accorded to the social services in resource allocation have adversely affected the development of economic infrastructure and thus of the industrial base in the State, can easily be countered on the basis of experiences in these two sectors. It is found that the Government has, in fact, been over-spending on each of the projects undertaken in irrigation and power sectors. Each project has involved immense cost overruns.¹² Had the Government been able to implement each project efficiently, within the normally expected constraints of time and cost, then it could have saved huge resources and hence undertaken a large number of additional projects. An estimate puts the cost overruns in 18 power projects in Kerala at Rs. 6,835 million, that is, about Rs. 380 million per project!¹³ It is not that the Government has no resources meant for infrastructure development, because it is actually over-spending; the problem is in the inefficiency of management, coupled with the political economy of corruption.



Despite the sluggish growth of the power sector, the State has been offering a wide range of incentives designed to boost industrialisation, including cheap power and tax holidays. And given the edge Kerala has in terms of infrastructure development in general, the explanation for the failure of industrialisation of the State must be sought elsewhere. It may be that a comparative advantage might have driven the State economy in its historical advance to skip a stage and grow on services.

3.4 Public Sanitation

Personal and home cleanliness notwithstanding, environmental hygiene in terms of solid and liquid waste disposal, drainage and community sanitation has increasingly been at an avoidable loss in Kerala. The state Government admits that

*"[a]t present, the quality of services related to solid waste collection and disposal is extremely poor... It is estimated that only about 50 per cent of the 2,500 tonnes of waste generated per day is collected for disposal. Everyday, a quantity of about 1,200 tonnes of waste is left to decompose on road margins, drains, canals, water bodies and open space. Such a situation provides ideal breeding ground for pathogens and germ carriers. Even more serious is the problem of ground water pollution due to leakage from disposal sites. Wind blown debris and burning of wastes invariably cause air pollution. There is a sharp increase in the presence of substances like plastics, which are difficult to degrade or break down in the waste stream."*¹⁴

It is found in an analysis of the composition of solid wastes that it contains 68 per cent biodegradable wastes and 32 per cent non-biodegradables, such as plastic, bottles, metal parts, rubber, bricks, etc.,¹⁵ causing serious environmental concerns. Though some local bodies have ensured to some extent sanitary latrine facilities to the poor, most of them appear to have failed in obligations on environmental sanitation. There is no practice of segregation and storage of waste at source and this has resulted in a disorganised and *ad hoc* primary collection system. Moreover, multiple handling of waste in different stages and irregular street sweeping have contributed to inefficient waste transfer and littering. This, coupled with the inadequately equipped primary collection points, has

¹² See for details Kannan and Pillai (2002: Chapter 5).

¹³ Kannan and Pillai (2002: Chapter 5, Table 2). See Table 7 for project-wise details.

¹⁴ Government of Kerala (2004: 171).

¹⁵ Ibid.

led to the unfortunate practice of waste dumping along roadsides and open space.¹⁶

Another threat is posed by bio-medical waste in the wake of the emergence of diseases like AIDS and hepatitis. It is approximately estimated that the solid and liquid waste generated per hospital bed is about 1.3 to 2 kg and 450 litres, respectively; about 15 per cent of this is infectious and toxic waste, and the remaining, general waste.¹⁷ Very often, the two types of wastes are handled together in hospitals, such that they mix and the general wastes also become toxic. With an ineffective safe disposal mechanism, this accumulates into a major health hazard. The wastes are often dumped in the hospital backyards (even in some medical colleges) and along the nearby road margins. Though the waste generator is in general held accountable for the safe treatment and disposal of the wastes, it is the responsibility of the local bodies to treat and dispose of the treated bio-medical waste as well as the general hospital waste. The Kerala State Pollution Control Board is the prescribed authority to ensure that this be done as per the Bio-medical Waste (Management and Handling) Rules, 1998; but there has hardly ever been an instance of intervention against any erring hospital or local body, despite the rotting accumulation of wastes – another instance of bad governance.

3.5 Quality Problems

Quality is an issue of serious concern in both the fields of social and economic infrastructure development in Kerala: Roads and transportation, electricity, education, public health, among others. Defining development in its truest sense in terms of a duality of availability (including accessibility) and quality, we find that the 'development' Kerala has achieved, once discounted for quality, boils down to mere *apparent capability* (*a-capability*) enhancement, and thus to *apparent development* (*a-development*) only.

For example, Kerala completed 100 per cent rural electrification long back, and even exported energy for quite some time. But since the early 1980s, it has been reeling under severe power famine. Though about 85 per cent of the households in Kerala are at present electrified, the reliability of connections is far from satisfactory, with frequent blackouts and brownouts. It goes without saying that Kerala's electrification is only



an *a-capability* enhancement. Similarly, Kerala does have a high edge over all-India in connectivity among communities via roads, but most of the roads are in bad condition, with a history of long neglect of upkeep,¹⁸ despite the phenomenal increase in the number of vehicles on the roads. Combine this with the poorly maintained public transportation, and the common man in Kerala stands to achieve his social contacts at a very high indirect cost – another example of *a-capability* enhancement.

A better and widespread recognition of quality problems of infrastructure in Kerala is in the field of education, which we will discuss in the next chapter. Thus, it goes without saying that structure of provision has nothing to do with quality: Public provision has as much economic space for quality as private one. The problem is in enforcement. There is a compulsive demand for quality as far as private provision is concerned. But this simply lacks in the public one, under the false impression, seemingly, of a free lunch. This, in turn, suggests that it is imperfect information that matters here. The public remains just unaware of their right to development in its true sense and thus of their right to quality. Development is never a dole of a 'charity State', but a commitment of a State as a duty bearer. It is what the tax income from the public must be translated into. In other words, it is development in its dual sense of availability *and* quality that the public *must* purchase for their taxes. With this come incentives that work behind a compulsive demand for real development that is to colour the corresponding public action. It is here that an informed platform gains significance to institute itself as a force of social reform to raise a civic society, conscious of its rights. Kerala is

¹⁶ Op. cit.: 172.

¹⁷ Op. cit.: 176.

¹⁸ "Most roads [in Kerala] are narrow, poorly developed, and inadequately maintained. Road width is insufficient to accommodate present traffic volume and future growth." (Government of Kerala, 2004: 244). Further, "congestion and poor maintenance lead to increasing road accidents. Now a major challenge is upkeep, up-gradation, and expansion to the standards prescribed by the Indian Road Congress for each category of road." (Op. cit.: 243).

fortunate in having had such a platform, strong though fragmented, for a long period that has been instrumental in bringing in so much a-capability enhancement. But history cannot stop here. The question is: Can Kerala achieve real development?

4. Concluding Observations

At a broad level, this chapter suggests that while progress on the income front may have been retarded in relation to advances in non-income dimensions of achievement in an earlier phase of Kerala's development, the preliminary investment in human development has greatly facilitated a spurt in growth during the subsequent phase of the State's development. Certain economic reforms in the 1990s, such as the depreciation of the rupee, the removal of a number of constraints on investment and import of technology/raw materials, provided a more conducive environment for investment. It appears therefore that our analysis does assume a 'lagged' effect in an unravelling of the earlier phase of 'human development lopsided growth' which, aided by a particular conjuncture of

economic forces, resulted in a high growth rate in the second period. This hypothesis, of course, has to be probed further.

In particular, the growth process in the post – 1980s period has been significantly helped by Kerala's distinctive profile of demographic development, superior educational attainment, which has been instrumental in promoting out-migration; and remittances from the Gulf, which have played a role in giving an impetus to both consumption and investment. Enhanced income growth, it must be expected, will be instrumental in maintaining, sustaining, and possibly enhancing, the State's historical record of improvements on the human development front. However, infrastructural inadequacies – especially in crucial sectors such as connectivity and power, and with particular reference to quality more than the quantity of provisioning – are a potentially significant source of inhibition on the growth process. But everything considered, the story so far has been a relatively happy one: It is time to recognise that the news may, actually, be a bit more mixed than it has come across. This is attended to in the next two chapters.

Reckoning Promise

A CRITICAL VIEW OF KERALA'S ADVANTAGE IN EDUCATIONAL CAPABILITY

1. Introduction

As concluded in the previous chapter, it would be a disservice to objective analysis, if one were to take an unqualifiedly admiring view of the so-called 'Kerala Model': some tendency toward the 'panegyric' mode of appraisal can, indeed, be found in the scholarship on the State's development experience. And, while this may be understandable because Kerala presents such a stark contrast to the rest of the country, it is also true that an uncritical appraisal can swiftly hit the region of dwindling marginal returns to knowledge. Certain emerging areas of concern – horizontal inequities, high levels of morbidity, mental distress, alcoholism and increasing lifestyle diseases – have already been pointed out. In this chapter and the succeeding one, we make an attempt to take a somewhat more balanced view of the Kerala experience, by focusing on issues of both 'promise' and 'caution'. Under the first category, we take a critical view of the undeniably huge human and social asset of education, which Kerala has succeeded in building over the years, stressing on the possible deficiencies, future potentialities and exploitable strategies for further progress of this dimension of human development. This is the concern of the present chapter. In the following chapter, we focus on some cautionary aspects of Kerala's development experience.

2. School Education: From Quantity to Quality

As highlighted in Chapter 2, in terms of quantity, school education in Kerala has been consistently much higher than in any other State. As of 2002-03, there were 12,271 schools in Kerala, with a total enrolment of 50 lakh (about one-sixth of the State's population). Kerala has one lower primary school for every sq. km, and one high school for every 4 sq. km. Facilities are more or less evenly distributed in both urban and rural areas, according to the Sixth All India Educational Survey conducted by the NCERT in 1993-94. The survey indicates that about 90 per cent of the population has a lower primary school, 67.5 per cent an upper primary school, and 62 per cent a secondary school within 1 km.

Institutional investment in facilities has been matched by individual investment, which have resulted in impressive growth in enrolment and average years of schooling. By the 1980s, enrolment at the primary level was near universal, including virtually no gender gap. Parents seem to be unbiased in investing in education of girls and boys. A variety of initiatives, including social reform, missionary and State intervention in the early part of the last century, laid the ground for gender parity in education. Importantly, as early as in 1956-57, 41 per cent of the school teachers in Kerala were women. The number has steadily increased over the years, and now the percentage of women teachers stands at 68. This can be contrasted with states like Bihar or Uttar Pradesh, where the percentage is not greater than

20. While it is not well documented, it may well be that the high percentage of female school teachers influenced parents to send girls to school.

As indicated in Table 6.1, girls have lower drop-out rates than boys in Kerala. In the table, we follow two sample cohorts of 100 students each for each category of students (in Government and aided schools)¹ – one enrolled in 1990-91 and the other enrolled in 1993-94. Out of all the girls who enrolled in the first standard in 1993-94, only 9.82 per cent dropped out before reaching class X in 2002-03, whereas 18.93 per cent boys enrolled in the same year dropped out. This is a uniform pattern across all social groups, though retention rates were much lower for boys and girls belonging to Scheduled Tribes. A comparison of the two sets of cohorts starting at two points in the 1990s shows that even though drop-out rates have come to quite low levels, they continue to fall. And the decline is slightly more (in absolute terms) for Scheduled Tribes and Scheduled Castes than for others, which indicates a narrowing of the differential among social groups.

There is some variation in the retention rates at the district level in Government and aided schools (Table 6.2). For some districts, a larger percentage of girls drop out by class X. However, in districts like Palakkad, Wayanad and Kasaragod, which had a low literacy rate, particularly of girls/women, retention rates for girls have increased in the 1990s. Kasaragod and Wayanad show the lowest retention rate for boys and girls; but it improved by 1993-94. These are areas for further investigation.

Table 6.1a: Retention Pattern Across Gender and Social Groups: 1990-91 to 1999-2000

	I	II	III	IV	V	VI	VII	VIII	IX	X
All Communities										
Boys	100	104.44	101.86	101.10	102.32	100.84	104.32	99.69	90.70	70.04
Girls	100	103.34	100.72	100.18	100.15	98.94	102.26	99.33	95.79	81.44
Total	100	103.90	101.31	100.65	101.26	99.91	103.31	99.52	93.19	75.62
Scheduled Castes										
Boys	100	105.93	104.24	104.03	102.57	100.32	102.26	95.90	82.73	57.55
Girls	100	104.69	101.63	101.38	100.11	97.71	100.11	96.21	90.94	71.10
Total	100	105.32	102.96	102.73	101.36	99.04	101.20	96.05	86.76	64.20
Scheduled Tribes										
Boys	100	94.20	87.90	83.08	75.46	65.66	62.84	55.34	43.75	28.65
Girls	100	96.31	91.06	84.64	74.95	68.23	66.25	60.47	51.92	39.33
Total	100	96.21	88.38	83.82	75.22	66.88	64.46	57.77	47.62	33.71

Source: Educational Statistics since Independence, Directorate of Public Instruction, 2004.

¹ The analysis does not include the enrolment in the CBSE/KSE schools, data for which are not reported in the Kerala Economic Review or other publications of the Government of Kerala.

Public spending on education in Kerala has been among the highest in the country, both as a share in the total budgeted expenditure and as a percentage of NSDP. More than 80 per cent of this expenditure goes to school education. However, the State is increasingly finding it difficult to sustain this level of expenditure, because of a fiscal squeeze. The share of education expenditure in NSDP has come down from above 6 per cent in the 1980s to around 4.5 per cent in the 1990s.

The relatively rapid demographic transition to a low-birth-rate, low-death-rate regime in Kerala has important implications on resource allocation in the education sector. Between 1981 and 1991, the population age 5-14 years has, in fact, declined from 59.72 lakh to 59.05 lakh. When the school-age population grows, expenditure on basic education must rise rapidly just to keep enrolment rates constant. But Kerala's declining school-age population increases the resources per child *potentially* available for

Table 6.1b: Retention Pattern Across Gender and Social Groups: 1993-94 to 2002-03

	I	II	III	IV	V	VI	VII	VIII	IX	X
All Communities										
Boys	100	104.65	103.47	102.86	106.75	105.97	112.20	110.48	103.03	81.07
Girls	100	103.18	101.65	100.99	103.49	102.63	107.26	106.24	104.59	90.18
Total	100	103.92	102.58	101.94	105.14	104.32	109.77	108.40	103.80	85.55
Scheduled Castes										
Boys	100	107.88	107.96	108.73	110.22	108.89	114.27	110.18	100.11	71.56
Girls	100	105.37	104.00	104.24	104.15	102.99	107.65	105.82	103.18	82.32
Total	100	106.65	106.02	106.53	107.26	106.01	111.04	108.05	101.61	76.82
Scheduled Tribes										
Boys	100	101.71	93.89	91.75	87.75	78.25	79.21	74.65	63.73	42.17
Girls	100	102.09	95.57	89.26	84.62	75.99	76.25	71.76	68.95	50.65
Total	100	101.89	94.69	90.56	86.25	77.17	77.79	73.26	66.24	46.24

Source: Educational Statistics since Independence, Directorate of Public Instruction, 2004.

Table 6.2. Cohort Retention Rate (I std. = 100) at Standard 10 (%) by Districts

District	Male		Female		Total	
	1990-91 Cohort	1993-94 Cohort	1990-91 Cohort	1993-94 Cohort	1990-91 Cohort	1993-94 Cohort
Thiruvananthapuram	74.15	87.52	87.60	87.85	80.79	91.03
Kollam	81.29	90.87	87.83	84.86	84.55	93.69
Pathanamthitta	85.22	93.80	91.96	91.31	88.58	97.28
Alappuzha	86.26	95.49	91.74	88.00	88.98	95.93
Kottayam	73.43	79.63	83.72	81.19	78.45	84.49
Idukki	62.02	73.79	75.97	71.25	68.79	77.24
Ernakulam	74.75	84.96	86.78	84.35	80.71	90.95
Thrissur	63.13	73.07	78.23	77.46	70.56	78.95
Palakkad	60.25	75.38	73.73	74.88	66.91	79.73
Malappuram	65.77	80.31	76.54	84.40	70.97	84.92
Kozhikode	72.40	83.12	85.09	82.28	78.59	88.27
Wayanad	54.95	68.48	67.78	68.26	61.16	74.32
Kannur	68.10	77.00	82.21	80.66	74.93	82.75
Kasaragod	59.20	68.23	65.80	69.10	62.40	72.31
Kerala	69.80	81.07	81.35	81.38	75.46	85.55
Coefficient of Variation (%)	14.00	10.90	10.20	9.00	11.90	9.40

Note: Cohort retention rate is defined as the proportion that remains enrolled in class X of those enrolled in class I (%).

education, which can either be utilised for improving the quality of basic education or for strengthening the next level of education. Has this potential been realised?

Total enrolment reached its peak in 1991-92, and it has been falling steadily since. The total number of teachers too has been falling since 1992-93, but not as fast as enrolment. As a result, the student-teacher ratio has fallen from 31 in 1991-92 to 28 in 2002-03. Given this trend, one would expect no further expansion of schools. But the total number of schools has, in fact, increased slightly in the 1990s – from 12,134 in 1990-91 to 12,310 in 1999-00, although it now stands at 12,271 (2002-03). The scope for improving efficiency of Government expenditure through a modest decrease in teacher-student ratios is high because teacher costs account for about 85 per cent of total spending.

A key factor, however, is the change in the distribution of total enrolment between private unaided, private-aided and Government schools, and the corresponding change in the composition of these three types of schools. Between 1990-91 and 2002-03, enrolment in Government schools fell by 25.6 per cent, whereas it increased by 79 per cent in private unaided schools. The number of private unaided schools, only 1.16 per cent of the total number of schools in 1980-81, has gone up to 4 per cent in 2002-03.

The popularity of private unaided schools may be taken as indirect evidence of the quality problem. A small, but rapidly increasing, number of parents view private unaided schools as a better alternative to Government (and 'private-aided') schools even though the former are several times more expensive than the latter. Clearly, these parents are willing to pay for quality. But if quality were available only at a high price, a vast majority of the parents would not be able to pay for it. And, therefore, they would invest less in their children's education than is desirable from the point of view of social return. This is the familiar argument of market failure. There is a fair amount of consensus among policy-makers that there is a strong case for the Government to reduce the direct and indirect costs of

schooling, not only by making public schooling available and free but also by making other selective interventions like the mid-day meal programme.

The education policy in Kerala has so far laid greater emphasis on school education compared to higher education. There should be no fundamental conflict between spending more than 80 per cent of its education budget on school education, as has been the case with Kerala and the objective of economic growth.² Interestingly, Kerala's pattern of allocation of public expenditure on education is very similar to that of the East Asian countries, particularly South Korea (Table 6.3). The allocation of public expenditure between basic and higher education is the major public policy dilemma in every society. What largely accounts for East Asia's extraordinary economic performance is the quantity of basic education provided by their governments (Chandrasekhar et al, 2001). The share of public expenditure allocated to basic education has been consistently higher in the East Asian countries than elsewhere throughout the period of their rapid growth. By giving priority to expanding the primary and secondary bases of the educational pyramid, East Asian Governments have stimulated the demand for higher education, while relying to a large extent on the private sector to satisfy that demand.

However, marking an important difference with Kerala, in nearly all the rapidly growing East Asian economies, the quantity and quality of school education improved significantly distinguishing its human capital accumulation. The cognitive skill levels of secondary school graduates in some East Asian economies are now even higher than that in North America and Western Europe (Chandrasekhar et al, 2001).

While universalisation of school education is no doubt a laudable achievement from the access point of view, there remains the question of translating this access into reasonably good performance in terms of quality and efficiency outcomes. A study done by the National Council for Educational Research and Training (NCERT) ranks Kerala below 17 other states in respect of levels of learning

Table 6.3: Share of Expenditure on School Education in Total Education Expenditure (%)

Year	Kerala	India	Korea, Rep. of	Malaysia	Thailand	Mexico	Brazil
1980	82.8	64.0	83.1	69.1	83.6	57.8	51.9
1985	80.2	63.3	83.7	74.8	79.5	58.3	53.7
1990	81.7	65.9	78.6	68.8	77.8	61.9	55.7
1995	78.9*	66.0	82.0	71.7	74.6	82.8	73.8

Source: Chandrasekhar et al (2001) *The figure is to some extent an understatement since plus two classes at that time were still in colleges in Kerala.

² Tilak (2001) holds the view that Kerala's economic growth has suffered because of the neglect of its higher education.

achieved by school students (Nair, 1999). Another one carried out by Kerala Shasthra Sahitya Parishad (KSSP) found that in Thiruvananthapuram district, more than one-third (35.27 per cent) of the students from class III to VII in 529 schools scored less than 12 marks out of 100 in a simple test of language and numeracy. In order to reduce repetition and drop-out, 'automatic promotion' has been followed in Kerala with rather drastic consequences, it would seem.

Further observations can be made on the basis of Table 6.1. If we follow the sample cohort of 100 students who enrolled in class I in 1990-91, up to class VII, retention outweighed drop-out for 'all communities' as well as SC students. However, a large number dropped out in classes VIII and IX. In a couple of years, the drop-out rate further came down, but remained concentrated at class IX. This shift in the concentration of drop-outs from lower standards to upper standards has the effect in terms of rising average years of schooling. If we look at the mean years of schooling, which is close to nine years, and ignored this particular pattern of drop-out and the reason for its concentration in class IX, the real implications of it on human capital accumulation can be missed. Given this pattern of drop-out as well as the results of some micro-level studies on learning achievements, it is argued that the mean years of schooling is not a good indicator of the real worth of the educational capability in Kerala.

Additionally, outdated syllabi and poor quality teaching leave little light for the learner. No wonder, the lacklustre performance of Kerala students in all-India competitive examinations. A serious attempt should be made to assess the quality of education for which indicators and tests exist, for instance Programme for Integrated Student Assessment (PISA).³

Variation in the quality – perceived or real – of secondary education between the 'private unaided' schools and others puts pressure on parents from low-income backgrounds to send their children to private schools at unreasonable costs. As already seen, the sharp increase in the enrolment in private unaided schools, along with a decline in the case of Government and private-aided schools, is a reflection of the recognition of this problem. Where quality matters, substitution takes place, with the private sector viewed as competitive in quality. Thus, demand for quality gets reflected in demand for private sector provision, wherever it is available. Such substitution is strong in the health sector also.⁴ That private sector provision



is qualitatively superior is supported by the general economic logic of *quid pro quo*, that a price ensures and enforces quality. These threads of argument are both baseless and dangerous. Baseless, because conveniently forgotten here is the fact, as we emphasised in the previous chapter, that there is no free lunch: behind every public provision, there is a price in the form of taxes from the public and this price should have ensured and enforced quality as much as it does in private provision. Dangerous, because it props up an unwarranted bias for private sector where there is an explicit provision for exclusion. If education, as perceived in Kerala, is a major way of levelling society, then unequal schooling – due to varying educational quality – operates against this. Hence, reallocation of public funds to improve quality of basic education in Kerala is essential for the benefit of children of low-income families.

It is especially in this context that the significance of efficiency of public expenditure on education arises. As already stated, teacher costs account for about 85 per cent of total spending and there is enough scope for expenditure efficiency on this front. A source of financial drain to the public exchequer is the maintenance of 'protected' teachers. With the fall in school enrolment, the number of teachers available exceeded the actual requirement: In 2003, there were 3,738 teachers⁵ identified as 'protected'; about 83 per cent of them have so far been re-deployed. A problem here is the redeployment of protected teachers in private-aided schools, being resisted both by the teachers on the strength of organisation and by the management on the strength of the Kerala Education Act, as it stands now. It should be noted that by the Act, recruitment of teachers in private-aided schools is solely at

³ This test was developed for the OECD countries and is a test of the knowledge and skills necessary for full participation in society rather than mastering a curriculum. It is adaptable to most cultural contexts.

⁴ It may be argued that were there opportunities, substitution would have a substantial role in the power sector also. The widespread use of stabilisers, inverters and gen-sets across Kerala is a reflection of the quality problem in the supply of power and might be an indicator of the tendency for such a substitution.

⁵ Government of Kerala (2004: 271).

Box 6.1: Aborted Attempts of Reform in the Education Sector

It is ironically unfortunate for Kerala that all political initiatives at reforming the education sector have been nipped in the bud by organised resistance from the private management, first in 1945 and then in 1950.

The Kerala Education Bill, 1957, introduced by the first Communist ministry, marked a milestone in the history of development of education in Kerala. The Bill sought to balance public expenditure commitments with social justice in the field of education, and the major provisions included were:

1. the Government may regulate the primary and other stages of education in Government and private schools;
2. the Government shall pay the salary of all teachers and non-teaching staff in aided schools, directly or through the headmasters of the schools;
3. all fees collected be deposited with the Government;
4. the Government may pay maintenance grant to the manager at prescribed rates;
5. the Government may make grants-in-aid for the purchase, improvement and repairs of any land , building, or equivalent of an aided school;
6. the Public Service Commission shall select candidates for appointment as teachers in Government and aided schools (Section 11);
7. the conditions of service relating to scales of pay applicable to teachers of Government schools shall apply to all teachers of aided schools;
8. no teacher of an aided school shall be removed or reduced in rank or suspended by the manager without the previous sanction of the officer authorised by the Government in this behalf;
9. the Government may take over or acquire the management of private school on reasons of mismanagement, or in public interest, on payment of rent or compensation;
10. the Government may appoint local education authorities who will (i) assess the educational needs of the local area, prepare schemes for educational development and submit them to Government, (ii) supervise the implementation of the scheme of noon-day feeding of school children, and (iii) promote conferences, exhibitions and other matters calculated to create among the people an interest in education;
11. the Government shall provide for free and compulsory education of children throughout the State within a period of 10 years from the commencement of the Act;
12. in every area of compulsion, the guardian of every child shall cause such child to attend a school and once a child has been so caused, the child shall be compelled to complete the full course of primary education or the child shall be compelled to attend school till s/he reaches the age of 14;
13. in case of failure, the parent of the child shall be punished;
14. it shall be the duty of the Government to see that noon-day meals, clothing, books and writing materials are provided for pupils free of cost.

The Bill also had the same fate of a thorough revision as its predecessor scheme; Section 11 regarding the appointment of teachers in aided schools had later on to be amended to read: “teachers of aided schools shall be appointed by the managers of such schools from such persons who possess the qualifications prescribed...” (The Kerala Education (Amendment) Act, Act 8 of 1960, Kerala Gazette dated July 8, 1960). Section 12 regarding the conditions of service of aided school teachers was also partially amended to empower the manager to suspend teachers for a continuous period not exceeding 15 days (Act 35 of 1960). Thus, the freedom of the private management in recruitment involving highly alleged nepotism and ‘donation’ was left intact, and still continues, braving all reform initiatives. And it is this situation that adds to the fiscal inefficiency in the education sector.

the discretion of the management, whereas the salary is given by the Government (Box 6.1). This inevitably raises questions not only on the accountability of public expenditure but also on the quality of output, especially considering the alleged practices of many private managements in recruitment, in terms of nepotism and 'donations'. This, in turn, increases the extent of the 'protective net' as also the 'public waste' for want of any re-deployment scope.

Another major problem having to do with the fiscal inefficiency in the education sector is the maintenance of a group of 'protected college lecturers', formed in the wake of the de-linking of the pre-degree course from colleges and the introduction of higher secondary course in schools. In addition, this has also necessitated appointing in required extent a large number of teaching hands in the newly started higher secondary schools; in effect, this reform has thus resulted in double burden on the exchequer. The extent of fiscal inefficiency will be evident when we find that there were 16,292 teachers in higher secondary schools in 2003, and that only 156 college lecturers had so far been re-deployed to higher secondary schools on working arrangement and 104 lecturers on deputation basis.⁶ An effective re-deployment of the redundant lecturers, if need be by legislation, to higher secondary schools would have effected huge savings that could have, in turn, been utilised for improvement of school infrastructure facilities regarding libraries, laboratories, computers and so on. It goes without saying that this marks the failure of political will in the face of rigid resistance from organised private interests of both the academic group and private managements.

3. Higher Education

In the early stages of human development and growth, expansion of primary education is an efficient way of advancement in terms of its contribution to growth, which in turn advances human development. When primary education is universalised, investment in secondary education will yield higher social return, and beyond that, as the economy begins to rely on knowledge-based sectors, tertiary education becomes important.

Despite the recent experience of growth in SDP, it is possible that Kerala has reached the limit of its growth potential of achievements in basic human capabilities. This will somewhat dampen the optimism implicit in the idea of a 'cumulative

upward spiral' generated by human development and economic growth (Ranis et al, 2000). At the moment, a great majority of those entering the labour force do not have more than school education. The neglect of the higher education sector in Kerala relative to some other States may lead States, which are still lagging behind in terms of basic education, to make a policy choice between one or the other.

There is no denying the value of higher education as it contributes to self-sustaining growth. Institutions of higher education produce new scientific and technical knowledge through research and advanced training, and serve as conduits for the transfer, adaptation and dissemination of knowledge generated elsewhere. Educated persons are seen not merely as human resources to be employed but also as active agents of employment creation.

Reliable information is a major constraint in understanding higher education in Kerala. Such information as it exists even on basic aspects, such as enrolment, tends to be confusing. The report of the Kerala Education Commission observes that the higher education system (generally defined as 'graduate and above') has extensive reach – the total number of students entering higher education every year accounts for about 15 per cent of the relevant age group. However, Tilak (2001) questions this and his estimates show that the enrolment ratio in higher education in Kerala in 1998-99 was roughly 3.7 per cent, falling way below the all-India average of 6 per cent.

Kerala has at present 286 arts and science colleges, seven universities, two deemed universities, 76 engineering colleges, 56 polytechnics, 41 medical colleges, including pharmacy and nursing colleges, two specialised medical institutions, and 102 teacher training institutes. Besides 186 Government and private-aided arts and science colleges, there are about 100 private unaided colleges. In 2002-03, 78,734 students were registered with the three universities – Kerala, Calicut and Mahatma Gandhi – as private registrants, who were probably enrolled in unaided colleges⁷ and more so in 'parallel colleges'.⁸

On the outcome side, 4.56 per cent of the people aged seven years and above have education level of 'graduate and above', which is slightly above the all-India average of 4.15 per cent, according to NSS 55th Round (1999-00). According to the 1991 Census, the respective percentages

⁶ Government of Kerala (2004: 274-175).

⁷ Kerala Economic Review (2003) and Kerala Economy (2003).

⁸ With the introduction of private registration of candidates for appearing in university examinations, numerous private unregistered institutions, called 'parallel' colleges, came up in the 1970s for coaching private registrants. These were different from 'tutorial' colleges meant to provide tuition to regular students. Their growth in Kerala has been phenomenal.

were 3.15 and 3.00, which means that in the 1990s, the growth of graduates as a percentage of 7 years and above population in Kerala has not been more than that in the rest of India. Given the impressive march of school education, it is somewhat surprising that Kerala should trail behind five major States – Maharashtra, Karnataka, Tamil Nadu, Gujarat and West Bengal – in higher education, even though all the five States lag far behind Kerala in terms of achievements in school education. From even the available indicators, it emerges that Kerala has not seen adequate quantitative expansion in higher education. By higher education here, we mean mainly general education in sciences and arts, not technical or professional education.

It is difficult to arrive at a plausible explanation for the lack of expansion in higher general education. While it may appear to be a lack of demand, how do we reconcile the declining demand for conventional courses with the thriving business of 'parallel colleges'? As argued earlier, individuals make investment in education for both its instrumental worth and intrinsic value. Some branches of education perceived to have instrumental worth dominate other considerations, while some others are seen as worth pursuing even though the immediate benefit in terms of job prospects is known to be rather limited. If in a social milieu, having a university degree carries social prestige, or not having one means the lack of 'ability to appear in public without shame', then even the conventional university degrees might be in demand. Parallel colleges can be seen, at least from an individual's point of view, as extending the opportunity to achieve this valuable functioning, and permitting the flexibility of participating in job-oriented self-financed courses, the demand for which has been increasing rapidly. Surely, the dominance of girl students in total enrolment in arts and science courses has had an important positive effect in terms of employment potential. Against this, the fact that women are relatively under-represented in professional and technical courses is a cause for concern.

4. On Access and Quality in Higher Education: A Study of Technical Education

4.1. Introduction

Two important messages have come out of this analysis. One is the need for concerted action on improving the quality of education, especially in schools, and the second is the need to give greater attention to the development of higher education to respond to

the dramatic changes in labour markets at home and around the world.

For the purpose of analysis, we specifically take up the case of technical higher education, but such analysis can be extended to any branch of higher education. Today, technical education has come to acquire a great deal of significance in the context of the demand for it linked to expanding job opportunities in some selected areas.

4.2 Status of Higher Technical Education

4.2.1 Early Development

As in the rest of the country, there is a three-tier pattern to modern technical education in Kerala: Degree, diploma and certificate. Graduates are expected to become engineer-scientists who can give professional leadership, innovate and create new designs and systems. The diploma-holders are expected to play the crucial role of middle-level supervisors, combining good practical knowledge with a basic understanding of the relevant theory, and capable of taking responsibility for actual production / construction work in the shop/site. Certificate holders are, of course, the all-important skilled workers in the field or shop floor or office.

The first institution of higher technical education in Kerala, started in 1939, with an intake of 21 students each in the three branches of civil, electrical and mechanical engineering, for both degree and diploma courses. The diploma courses were later shifted to a separate polytechnic. Two new branches, architecture and electronics and communication engineering, were added in the 1960s. The Regional Engineering College in north Kerala was started in 1961 under the direct initiative of the Union Government. In the mean time, one more Government college and three aided private colleges had been started and the intake rose to about 1,000. Chemical engineering was introduced in one of the newly-started Government engineering colleges. Until about the mid-1980s, this situation prevailed, despite demand for an increase in capacity. The official position was that priority should be given to consolidating existing facilities and improving the quality of technical education, rather than increasing the numbers indiscriminately.

However, during this period, an 'explosion' in the field of technical education in the neighbouring States, using the self-financing model, including



huge capitation fees and very high tuition fees drew increasing numbers of takers from Kerala. Soon, there was a strong plea for the sanction of capitation fee colleges in Kerala. The Left ideology generated a strong aversion to commercialisation of education in Kerala, which, however, mellowed over time. This was even as the Government was unable to expand the public/aided sector in keeping with the growing demand for engineering seats.

4.2.2 Controlled Expansion

The Government started a few engineering colleges in the public domain in the latter half of the 1980s. One of this was started in 1989 under a Government-sponsored autonomous body, viz., the Institute for Human Resources Development in Electronics (IHRDE). This college charged a higher tuition fee than what was applicable to the Government / aided colleges. The success of this institution emboldened the setting up of some more full-fledged self-financing colleges by Government-sponsored autonomous bodies; along with which one self-financing engineering college was allowed to be set up by the Muslim Educational Society, as a minority educational institution. During the same year, some self-financing courses were also started in a university. Thus, the total number of technical education institutions in Kerala rose dramatically, with an intake of over 4,000 students and the self-financing mode appeared to have been accepted. A Supreme Court judgement, regarding the conduct of self-financing colleges was a landmark event in the history of professional education in the country. Capitation fees, as well as deposits, were abolished. A differential fee system (free seats and payment seats) was introduced in unaided colleges: 50 per cent free seats and 50 per cent payment seats. The 'free' seat holders

(actually a misnomer) had to pay the same fees as that prevailing in Government colleges, while the 'payment' seat holders had to pay sufficiently high fees so as to cover the rest of the recurring costs. Thus, the principle of self-financing, that educational institutions can be run solely by the fees and other charges collected from students, was granted legitimacy by the Supreme Court. The provision of free seats, while apparently addressing the concern for equity was not always so; rather those with higher paying capacity were to pay the expense of one meritorious student who need not always be poor (George, 1995). Admission to all professional colleges was to be conducted by an authorised State agency, on the basis of the rankings in a common entrance examination (CEE) to be conducted by the Government.

The Government decided to entrust the task of managing self-financing professional colleges to public agencies, as far as possible. The State ministry of co-operation started a new agency for the sole purpose of operating self-financing professional colleges called Co-operative Academy of Professional Education or CAPE, who were allotted a few engineering colleges. Finally, the Government itself came forward to start some more engineering colleges, belying the earlier argument that the State had no resources for starting new colleges. Thus, Kerala entered the new millennium with 29 institutions under different sectors with an enrolment capacity of nearly 8,000.

4.2.3 The Explosion

The Government of Kerala's policy decision in 2000 to grant 'no objection certificates' to any private agency that approached it for permission to start an unaided professional college evoked a huge response. As the All India Council of Technical Education (AICTE) was to take responsibility for approving the infrastructural facilities and the universities were to take care of the academic requirements, the Government, it was projected, had no role to play, except to facilitate private investment in professional education.

Thus, in 2004, Kerala had 88 institutions imparting technical education at the degree level, including 48 in the private unaided sector, with a total enrolment at 20,591. New branches were added. As much as 38 per cent of the seats were in computer science or information technology; 25 per cent were in electronics and related branches. The traditional branches, civil, mechanical and electrical (now converted into electrical and electronics) accounted for only 27 per cent of the seats. The remaining seats were in areas like biotechnology, biomedical engineering,

chemical engineering, architecture, industrial engineering, production engineering, automobile engineering, etc. In addition, there was post-graduate education in engineering and MCA courses.

4.2.4 Diploma and Certificate-Level Education

Technical education at the diploma level, which had undergone a quantitative transformation over the last half-century, has been in a subservient position to graduate education. A diploma is resorted to either because of the failure to get access to a degree programme or due to financial constraints. Hence, the demand for diploma seats has come down considerably, creating an imbalance in the supply of technically qualified personnel in the intermediate range

There are now over 50 polytechnics in Kerala, which impart technical education at the diploma level, mostly in the Government sector, with a few self-financing institutions.⁹ The total intake at the diploma level is of 10,955 students, of which 1,575 students are inducted by the self-financing sector. It may be mentioned that some courses, like hotel management and catering technology are offered almost exclusively on a self-financing basis.

About 37 per cent of the students enrolled in the polytechnics are girls. The proportion of girls in engineering colleges is also roughly at the same level. However, it is interesting to note that a wide variation in sex ratio exists in different streams (discussed in Chapter 7).

Besides the polytechnics, there are almost 450 ITIs/ ITCs (industrial training institutes, owned by the Government, and industrial training centres which are privately owned) imparting craft/technical training to class X pass and fail students, as also those with a plus two level of education for superior trades like computer and DTP courses. Their total seat strength is about 57,000, more than three-fourths being in ITCs and the intake is largely for one- and two-year certificate courses. However, their numbers have been declining overtime and the drop-out rate is also high primarily due to the slow conversion of obsolete/unpopular trades into new trades, responding to the changing technology and requirements of the market. Some attempts were made to introduce job-oriented trades and modernising the ITIs under a World Bank-aided skill development project in the late 1980s but modern trades need modern equipment and qualified teachers, and hence the process is very tardy.



Nonetheless, the heavy concentration of matriculates (10 standard) among the educated unemployed – there are almost 100,000 unemployed certificate holders – without any skill acquisition is at the core of the unemployment problem, which has to be addressed and given serious attention. The problem is not only one of mismatch but also quality.

5. Demand for Higher Technical Education

5.1 Defining the Domain

Assessing the demand for higher technical education is an extremely difficult task. Is it the demand for seats or the demand for graduates? The two are not always related. There were 9,246 unemployed engineering graduates, 41,628 diploma holders and 133,000 certificate holders registered in the professional employment exchange of Kerala, in 2003. Anecdotal evidence abounds about engineering graduates working as clerks, conductors and casual labour for a paltry remuneration. Some are happily employed, but in professions that have no relation to their expensive and exacting education. Many women engineers give up their career after marriage. There are thousands of unemployed electronics/computer/IT graduates queuing up, when a handful of jobs are advertised in reputed public sector undertakings.

Information technology and related industries are the major source of demand for engineering graduates and diploma holders. However, IT companies recruit from all branches, making their choice for keen analytical and verbal skills over

⁹ These are managed by IHRD and run as 'Model Polytechnics'.

engineering specialisation! An engineering degree often acts as a 'filtering mechanism' in the labour market rather than as a source for specialised skills and knowledge.

Obviously, the demand for engineering seats varies inversely with the demand for other disciplines of higher studies. The current rush for engineering and medicine is more a reflection on the limited prospects for general graduates than any propensity for these challenging professions. Perhaps, it is an expensive and desperate effort to improve one's employability.

6. Issues of Quality

6.1 Quality and Quantity

There is no question that there has been an unbridled expansion in the field of technical education, which has affected its quality,¹⁰ both at the national and State level; whatever assessments are available place Kerala at a low level. The U.R. Rao Committee observes: "One of the serious consequences of virtually unregulated growth of technical institutions is the extreme shortage of quality teachers at various levels." According to one recent (though conservative) estimate, over 10,000 PhDs will be required in the next 3-4 years to meet the basic needs of the engineering institutions in the country (Ramachandran, 2004).

It is well known that many of the newly-started colleges are making do with a few retired teachers and some new graduates. There is an acute shortage of experienced middle level faculty, the backbone of any teaching institution. It will take several years before the new generation of teachers catch up and become ready to take on the mantle. But, by then several batches of students will have passed through these institutions, without the benefit of quality academic inputs.

6.2 Quality of the Students

As for the quality of students, there is a minimum requirement and there is a competitive criterion. The minimum requirement is a score of at least 50 per cent in mathematics, physics and chemistry in the qualifying examination. The competitive criterion is the ranking in the common

entrance examination. There is a general feeling that the 50 per cent requirement is not sufficiently challenging. In fact, some States insist on 60 or even 75 per cent minimum. This is even as there has been tremendous pressure from self-financing college managements to remove this restriction. Anyway, the AICTE, in its wisdom, has recently removed this condition from its recommendations. Of course, States are free to have more strict criteria and Kerala has chosen to remain with the 50 per cent rule.

The second criterion, performance in the CEE, really helps to rank candidates coming from diverse backgrounds and through different qualifying examinations. It is inevitable that as intake increases, and as we go deeper and deeper into the ranking list, the quality of the candidates deteriorates grievously. A spot check of the results of the common entrance examination for a particular year revealed that only about 5,000 candidates (in a field of about 25,000) had scored above 10 per cent in the mathematics paper.¹¹ (The top score was above 60 per cent). Again, only about 12,000 persons had scored at least 5 per cent. After about 19,000 or so, the score was actually negative (Table 6.4).

This situation resulted in a plea for setting some minimum performance standard in the CEE as an eligibility criterion, over and above the minimum marks specified for the qualifying examination. Thus, the Government came up with the condition that a candidate should have secured a minimum mark of 10 (out of a possible maximum of 480) for every paper in the CEE. But even this was later relaxed, under pressure from self-financing college managements. SC/ST candidates were exempted from this requirement in the beginning itself. Later, as seats were found lying vacant, it was decreed that even those who had not appeared for the CEE could be admitted through a 'walk in interview'. It has also to be mentioned that non-resident Indians (NRIs) had always been exempted from the requirement of a ranking in the CEE. All this has helped to water down the calibre of the incoming students.

The present situation in Kerala (in fact, in all the southern States) is that the number of seats exceeds the number of applicants. Thousands of seats were lying vacant last year in Kerala, Karnataka and Tamil Nadu. Under these conditions, one prescription for safeguarding the quality of education is to

¹⁰ In this context, the findings and recommendations of the committee set up by the Ministry of Human Resource Development (MHRD), under the chairmanship of Prof. U. R. Rao, former Chairman of Indian Space Research Organisation (ISRO), to review the performance of the AICTE, are quite revealing. "Taking 1981 as the base year, when the total enrolment in engineering and architecture was 115,000, the committee has argued that the economy could at best absorb only a 75 per cent increase between 1981-82 and 2003-04. This works out to about 200,000. In other words, an intake of about 50,000 (for a four-year degree course) – seven times less than the current intake – would be barely sustainable, thus pointing to a gross mismatch between what the economy can support and what has been sanctioned by the AICTE."

¹¹ This, of course, also points to the need to enquire deeper into the contents of the mathematics question paper since its results are so much out of line with those in other subjects, even for top students.

Table 6.4: Common Entrance Examination, Kerala: Subject-wise Rank List and Marks*

Mathematics		Physics		Chemistry		Biology	
Rank	Marks (%)	Rank	Marks (%)	Rank	Marks (%)	Rank	Marks (%)
1	60.62	1	83.12	1	89.58	1	84.58
100	28.96	100	56.88	100	75	100	73.96
500	20.62	500	42.92	500	64.79	500	67.50
1,000	17.08	1,000	37.08	1,000	58.96	1,000	63.54
2,000	13.96	2,000	30.42	2,000	51.25	2,000	57.29
3,000	12.08	3,000	26.46	3,000	46.25	3,000	52.92
4,000	10.62	4,000	23.33	4,000	42.08	4,000	49.17
5,000	9.58	5,000	20.83	5,000	38.75	5,000	46.25
6,000	8.75	6,000	18.96	6,000	36.04	6,000	43.33
7,000	8.12	7,000	17.29	7,000	33.54	7,000	41.25
8,000	7.29	8,000	15.83	8,000	31.25	8,000	38.96
9,000	6.88	9,000	14.58	9,000	29.38	9,000	37.08
10,000	6.25	10,000	13.54	10,000	27.71	10,000	35.21
11,000	5.62	11,000	12.50	11,000	26.04	11,000	33.33
12,000	5.00	12,000	11.46	12,000	24.58	12,000	31.67
13,000	4.38	13,000	10.83	13,000	23.12	13,000	30.00
14,000	3.96	14,000	10.00	14,000	21.88	14,000	28.33
15,000	3.33	15,000	9.38	15,000	20.62	15,000	26.88
16,000	2.71	16,000	8.54	16,000	19.38	16,000	25.21
17,000	1.88	17,000	7.92	17,000	18.33	17,000	23.33
18,000	0.83	18,000	7.29	18,000	17.29	18,000	21.46
19,000	Below zero	19,000	6.67	19,000	16.25	19,000	19.58
		20,000	6.25	20,000	15.21	20,000	17.08
		30,000	0.83	30,000	0.83	21,000	14.17
		31,000	0	34,985	0	22,000	9.17

*The year is kept confidential.

ensure that examinations are conducted strictly and diligently. This has proved to be quite effective in Tamil Nadu, where the Anna University has earned a reputation for wielding this stick mercilessly. Against this, admitting students with insufficient academic capability and then failing them is very cruel and wasteful. A study done in Kerala shows that even when there were only less than 5,000 seats for engineering, about 10 per cent of the students were unable to complete the course successfully. This problem is sure to be exacerbated now, in view of the phenomenal increase in the number of seats and the poorer quality of the candidates.

6.3 Quality of Infrastructure

Financial resources can certainly be directed towards quality infrastructure. It has been estimated that a newly-started engineering college offering instruction in four engineering disciplines will require an initial investment of about

Rs 15 crore (excluding land cost). The early engineering colleges and polytechnics (both Government as well as aided) have possibly much more than this amount already invested in buildings and equipment. But the new Government colleges lag way behind as far as physical facilities are concerned. Even more than the paucity of funds, they are constrained by administrative and procedural bottlenecks. This is where private institutions have an advantage. They have the money and the freedom to spend it. Yet, much depends on where it comes from and how they spend it. There are some institutions, which have been started by reputed institutions or agencies in the field of education. They show promise of quality. There is hardly any self-financing college in Kerala that has been sponsored by industrial houses or major corporations or philanthropic foundations. Most private managements are under pressure to repay their loans and to show returns on equity within a reasonable time! It is not unexpected that they try to skimp

and cut corners, not only in equipment and facilities, but even in staff salaries and operations. It is inevitable that all this will adversely affect the quality of instruction and eventually, the reputation and credibility of the institution. Considering the acute competition that exists in this field, such policies are fraught with problems.

The Government-sponsored self-financing colleges were started with the admirable intention of combining the positive aspects of both public and private institutions. They were supposed to possess the social commitment, transparency and accountability of public institutions, as also the autonomy and flexibility which private institutions enjoy in resource mobilisation and management. It is a moot question whether these have proved to be valid assumptions.

7. Access to Higher Technical Education

7.1 Access and Availability

Access has three distinct components: Availability, eligibility and affordability. Except for some esoteric disciplines, most modern branches of higher technical education are available in Kerala and also in sufficient numbers. As a matter of fact, several engineering seats were lying vacant during the past academic year for want of takers. While this certainly does promote accessibility, it does not automatically indicate that all those desirous of pursuing higher technical education are able to do so. The questions of eligibility (discussed earlier) and affordability still remain.

7.2 Eligibility and Affordability

As seen earlier, even in Kerala, which boasts of hundred per cent enrolment, the retention rate in Class X is lower although it has improved over time. There can be no question that the drop-outs come exclusively from the most deprived sections of the society. About half of these students fail in the Class X examinations. Of the remaining, another half or so do not cross the 'plus Two' stage. Again, there can be little argument about the family backgrounds of these unfortunate children. Only those without family academic support or the benefit of expensive private tuition fail in these examinations. It is common knowledge in Kerala that if you want a 'good' pass, classroom learning is not enough and you have to go for private tuition. Thus, in effect, those drop-outs for whom the portals of higher education are effectively closed, invariably and inevitably belong to the disadvantaged sections. This is a fairly obvious barrier and has been brought out by several studies.

"...parents of all students who appeared for the entrance examination were educated. But the parents of the students who get entry into higher education are even better educated than parents of non-crossed¹² students. Even the SC/ST parents of these categories of students in rural areas were educated... It is observed that more than four-fifths of the students who appeared for the entrance belonged to the middle income and rich sections of society. Only less than one-seventh of the crossed students and a little over one-sixth of the non-crossed belonged to the poor income group. OBC and SC/ST students were relatively poor compared to the FC students... we find that the top 5 per cent households in Kerala appropriated 82 per cent of the seats in professional education" (Salim, 1999).

There is another not so obvious barrier. That comes from the highly variable quality of the engineering colleges and the contrasting prospects of their graduates as reflected in campus recruitment. The fact that almost all eligible students from the final year class of some of the better quality institutions are 'snatched' away by reputed companies, even before they graduate gets a lot of publicity and contributes in no small measure to the high 'market' demand for engineering seats in general. Studies conducted in such institutions by KSSP and the Centre for Socio-Economic Studies, Kochi, have shown that almost 85 per cent of the students who study there come from the top 15 per cent of society.

It is significant that campus recruitment has started in some of the 'prestigious' new self-financing colleges also, whose management seats seem to be in high 'demand'. Thus, the question of eligibility is inextricably linked with affordability; it is not the ability of the student to afford the cost of education in professional colleges, but the non-tuition expenses of professional education that form a major component of the total educational costs, and hence, an important determinant of access to higher education. An interesting development is that these non-tuition expenses include not only living expenses, books and other learning instruments, study tours, etc., but also the cost of private tuition! Whether it is a reflection on the quality of teaching or on the quality of the students, who have already become addicted to private tuition and cannot learn by themselves, is a point to be explored. So, mere tuition waiver will not be enough to ensure that the socially and economically handicapped students are enabled to pursue higher education in accordance with their full potential. Student loans have been mooted as a solution, but findings from various quarters show that such loans rarely reach or benefit those who really need them.

¹² Crossed refers to those who have crossed barriers for entry to higher education.

The current tendency, even in the US, is to resort more and more to scholarships, instead of loans (Arenson, 2004).

8. Access as a Social Issue

8.1 Education and Social Mobility

Education, especially higher education, has been an important vehicle of social mobility in Kerala. The costs have been borne by generations of parents and defrayed by the State through generous budget provisions. Many middle and upper middle class parents, who are now running from pillar to post in search of self-financing seats for their wards, are the beneficiaries of this State policy, which continued well into the 1980s. The dispute about merit seats and payment seats is merely a scuffle for sharing of the spoils among the victors.

This realisation is gradually setting in among the victims of the system. For a long time, the socially and economically backward sections have been fed on the hope that they too could partake of the gains of the so-called 'Kerala Model', if only their children attend school and study well. Now, they see that you have to go to expensive private schools and afford private tuition as well. Each time, they move near the goal, the posts are shifted.

8.2 Equity and Excellence

Equity and excellence are often posed as opposing objectives, to be offset against each other. This is not tenable. If the entire community of engineers in a society comes from the top 5 per cent or even 20 per cent of the population, how can it attain the excellence it is capable of? This is especially relevant in a competitive world.

So, a beginning must be made at the very beginning. It has to be ensured that all children, irrespective of the educational or economic status of their parents, get a level playing field. They should be able to receive all the learning experience that the curriculum prescribes in the classroom itself. Private tuition should become not only unnecessary but also bothersome. Any child ought to be able to take any examination, including the CEE, and display her/his full potential, without recourse to private tuition, based purely on the strength of classroom learning experience. This is quite an ambitious goal, but not impossible. This can be

attained by reforming the curriculum, by strengthening the public schools, and by training and empowering the teachers. Decentralisation and the emergence of *panchayati raj* institutions offer an opportunity and a challenge. There was a time when schools were started as societal enterprises, with even the most humble chipping in with a handful of rice or a basketful of coconuts. There are some lessons there.

9. Concluding Observations

Chapter 6 has been an extended discussion on the need to consolidate on the already very considerable gains which have been made on the educational front, and stresses the importance of paying attention to issues of quality, access and the functional orientation of education, with particular reference to technical education, so that this vital component of human development may serve as an impetus to economic growth in a mutually reinforcing relationship. The neglect, relatively speaking, of higher education in Kerala was not felt for some time. However, dramatic changes in the labour markets around the world, because of technological change and particularly labour migration, has started to impinge on employment opportunities. These changes carry important signals for the education system. Education needs to respond to the increasing demands for adaptable workers, who can readily acquire new skills rather than for workers with a fixed set of technical skills. Specific skills can be imparted more efficiently on the job than in a training institution. There are already a good number of institutions for technical education; the majority of them in the private sector, and with new initiatives like 'Technical Education Quality Improvement Programme', it may be possible to improve the quality of technical education.

The fact that private investment flows into technical and management education should not be a deterrent to good quality general education, where social return outweighs private return. It may well be suggested that public investment can be routed into good quality general education, especially basic and applied natural sciences and social sciences.¹³ As is often the case, some of the discouraging features of Kerala's socio-economic landscape today are a product of what one might call the 'excesses of success.' The next chapter deals with these issues, with specific reference to the problem of educated unemployment and aspects of female disadvantage, which are not commonly picked up by human development indicators.

¹³ This does not imply that technical and management education should be left entirely to the private sector on the ground that private investment to meet the demand from students is flowing into these segments; the equity dimension is important as pointed out earlier.

Reckoning Caution

EDUCATED UNEMPLOYMENT AND GENDER UNFREEDOM

1. Introduction

The problems of educated unemployment and gender discrimination pose perhaps the most serious challenges to continued human development in Kerala, cutting across categories such as class, caste, religion and age. Given a marked social emphasis on education, at least up to the school level, the problem of educated unemployment has become increasingly complex with time. Two aspects stand out in our analysis of unemployment, particularly of the educated – the gender dimension and the rising aspirations of the educated regarding work. In order to probe these and other related issues, a primary survey was conducted between October and December 2003 in the districts of Thiruvananthapuram, Ernakulam and Kannur in the southern, central and northern regions of Kerala. This section draws considerably on the survey data. Educated unemployment and related issues are taken up for discussion in the following section, which first highlights briefly the gender differentiated pattern of education. The second section takes up aspects of gender discrimination.

2. The Problem of Educated Unemployment

2.1 Work Participation and Unemployment

Until the early 1970s, Kerala's population grew at a higher rate than at the all-India level; however, the work participation rate (the ratio of number of people working to the total population) remained low. This is partly due to the structure of the Kerala economy dominated by low labour absorbing cash crops. This started showing signs of change in the 1990s, with a decline in the dominance of agricultural employment. According to estimates of the NSSO shown in Table 7.1, the work participation rates (WPR) in Kerala was steady in the 1990s as against a decline at the all-India level, bringing both to around 39 per cent. This is significant warranting further analysis.

Disaggregation by sex and age group shows that in Kerala, the work participation rates of men in the age group of 25-45 years increased in the two time periods since 1987-88, a result very likely of greater employment opportunities. In contrast, increase in women's work participation rates was confined to the age group of 35-54 years in the urban areas alone. This is, of course, an indication that women's ability to take up work is enhanced when their reproductive responsibilities ease to some extent at least past the child-bearing age. The overall tendency at the all-India level was in contrast to that of Kerala, with a decline in the work participation rate for all age groups except for a marginal increase (less than 0.5 percentage points) in the rural age-group of 40-49 and 55-59. This could

be the result of the declining employment elasticity of growth, especially due to the shift to commercial crops (as opposed to food crops) in agriculture and the decline in employment in many urban industries (such as jute, textiles, and older generation of other manufacturing). Another factor is the increasing share of students in the younger age group, which has also contributed to the continued decline in work participation rates of the young age group of 15-24 in Kerala. The impact of the demographic transition is yet to show itself in these age groups, as the absolute numbers of population in these categories are still increasing. However, as shown later, many students may be looking for some employment. Needless to say, the increase in educational attainments augments the ability of men and women to find employment opportunities in an increasingly diversified labour market.

Male WPRs in Kerala are more than twice those for females – 55 per cent *vis-à-vis* 23 per cent for females, and while the former has increased since 1987-88, female WPRs remained constant during the 1990s (Table 7.1). The workersex ratio (female workers per 1,000 male workers) which had declined from almost 536 in 1987-88 to about 439 in 1993-94 further declined to 436 in 1999-00. This is reflected also in a decline in the share of women in the total work force from 35 per cent to 30.5 in the early 1990s and then further to 30.3 per cent in 1999-00.¹

Female WPRs in Kerala have been among the lowest in India. Currently, while over a quarter of the female population is recorded as economically active at the all-India level, the proportion is about 23 per cent in

Table 7.1: Work Force Participation Rates (Usual Principal and Subsidiary Status)

	Kerala			All-India		
	1987-88	1993-94	1999-00	1987-88	1993-94	1999-00
Rural Male	50.6	53.7	55.3	53.9	55.3	53.1
Rural Female	28.6	23.8	23.8	32.6	32.8	29.9
Urban Male	53.0	55.9	55.8	50.6	52.1	51.8
Urban Female	19.8	20.3	20.3	15.2	15.5	13.9
Total Male	51.2	54.3	55.4	53.1	54.4	52.7
Female	26.5	22.9	22.9	28.1	28.3	25.4
Person	38.6	38.3	38.7	41.1	41.8	39.5

Source: 1987-88: *Sarvekshana*, September 1990; 1993-94: *Sarvekshana*, July-September 1996; 1999-00: "Employment and Unemployment Situation in India", 1999-2000, Report No. 458, NSS 55th Round, NSSO, Government of India, May 2001 *Sarvekshana*.

¹ These percentages have been estimated on the basis of absolute numbers in the work force and its composition derived from the WPRs and population data.

the State. However, while there was a decline in female WPRs in both rural and urban areas at the all-India level in the 1990s (Sundaram, 2001), there has been greater stability in Kerala. (Table 7.1). Besides about one-fifth of women in urban Kerala are employed compared to less than 14 per cent at the all-India level.

Disaggregation by activity status added complexity to this finding. The number of days of work for those usually employed is much higher for women in rural and urban India than in Kerala and it had increased between 1993-94 and 1999-00. In Kerala, the number of working days between 1993-94 and 1999-00 declined in rural areas and showed no change in urban areas. In the same period, urban Kerala also showed an increase in the number of days women reported 'not seeking/not available for work', i.e., were not in the labour force (Table 7.2).

It is well known that women in Kerala enjoy higher wage rates (casual) in both rural and urban areas than in other parts of the country and hence their annual earnings may still be higher. It is then possible that bolstered by increasing male WPRs and higher household earnings, women are withdrawing from paid work into full-time

domesticity for significant parts of the year. There is a tendency for women to focus on activities in and around the home. Data collected by the NSSO showed that a higher proportion of housewives in Kerala, by main occupation, were engaged in the maintenance of kitchen garden, poultry and cattle and free tutoring of own/other's children than at the all-India level² (Appendix Table A7.1 at the end of this chapter). Reflecting the greater commercialisation of Kerala's economy, there were fewer housewives taking part in several activities of a subsistence kind, such as husking of own paddy, free collection of firewood or preparation of cow dung cakes. There is also a suggestion that women's better educational profile in Kerala is being capitalised on in home-bound unpaid work – 142 per 1,000 women in Kerala compared to 48 per 1,000 in India participate in free tutoring of own/others' children.

However, low economic status brings pressure on women to seek work for pay as is reflected in the much higher WPRs among the SC/ST women in Kerala as elsewhere (Table 7.3). Male WPRs are also higher among the SC/ST populations but not among OBCs. The rural work participation rates were 41 per cent for ST women,

Table 7.2: Activity – Status Distribution of Person – Days per Year of Usually Employed Workers (Principal and Subsidiary Status)

Activity Status	Rural Females			Urban Females		
	1987-88	1993-94	1999-00	1987-88	1993-94	1999-00
Kerala						
Employed	193	216	211	213	248	248
Unemployed	20	16	26	31	19	14
Not in Labour Force	152	133	128	122	99	103
India						
Employed	233	242	247	261	280	289
Unemployed	9	15	14	14	8	8
Not in Labour Force	123	112	104	90	77	68

Source: Estimated from data from the Three Rounds.

Table 7.3: Rural Work Participation (Usual Principal and Subsidiary Status) by Social Category

Year	Scheduled Tribe		Scheduled Caste		OBC		Others	
	Male	Female	Male	Female	Male	Female	Male	Female
1987-88	58.2	37.6	50.2	39.5	na	na	50.5	26.9
1999-00	72.1	40.8	58.0	32.7	52.8	22.6	57.2	22.1

Source: Kodoth and Eapen (2005); na- not available.

² These are accepted within the domain of extended-SNA (system of national accounts) activities, which fall outside the SNA production boundary, but within the general production boundary, a major part of which consists of unpaid services.

Table 7.4: Work Participation Rate by Districts

Districts	Total		Male		Female	
	1991	2001	1991	2001	1991	2001
Thiruvananthapuram	32.6	32.0	50.2	51.5	15.6	14.4
Kollam	32.1	32.1	47.7	48.5	17.0	16.7
Pathanamthitta	29.7	29.7	48.0	47.6	12.5	13.2
Alappuzha	34.1	34.4	46.8	49.7	22.0	20.2
Kottayam	31.2	32.9	50.4	52.4	12.1	13.9
Idukki	39.7	43.3	55.2	58.4	23.8	28.1
Ernakulam	33.4	36.1	51.5	55.4	15.5	17.1
Thrissur	32.0	32.2	47.2	50.8	17.9	15.1
Palakkad	35.5	36.2	48.6	52.2	23.1	21.1
Malappuram	24.3	24.1	40.7	42.8	8.7	6.6
Kozhikode	26.6	27.9	44.6	48.8	9.0	8.1
Wayanad	38.8	39.3	53.2	55.7	23.8	22.8
Kannur	28.9	31.8	44.7	50.0	13.8	15.2
Kasaragod	33.4	34.7	46.1	49.3	21.0	20.8
Kerala	31.4	32.3	47.6	50.2	15.9	15.4
Coefficient of Variation (%)	12.5	13.6	7.5	7.3	30.2	32.9

33 per cent for SC women as against 23 per cent for OBC and 22 per cent for other groups of women in 1999-00 (Table 7.3). If some aspects of family patriarchy – indicated in their greater mobility and financial autonomy – break down for poor women, they have to contend with discriminatory wages, occupational segregation and a disproportionate share of responsibility for provisioning.

District-wise break up of work participation rates from the Census shows that the pressure to work has been higher in the eastern highland districts of Idukki and Wayanad than elsewhere in the State for both men and women (Table 7.4). However, Alappuzha records significantly higher female work participation rates than all Kerala and close to the levels of the eastern districts. The lowest level of work participation for women and men is in Malappuram, also known for sending the largest number of men to the Gulf. The adjoining district of Kozhikode also registers very low levels of female work participation. Significantly, these patterns are consistent over the 1991 and 2000 censuses.

Before we conclude this section on employment status within which regular/salaried employment is the most preferred (but not all of which need be in public services), we must mention a notable step taken by the Congress-led government recently, to protect the

reservation quota of all backward communities of Kerala so as to ensure their adequate representation in public sector employment. This decision is based on the Justice Narendran Commission Report submitted in 2001, basically highlighting the fact that, as on August 2000 even with reservation, all communities were not getting adequate representation in all the categories of posts (as compared with their reservation quota) resulting in a backlog in the representation of the mini Backward Class communities in the public services. This backlog differed between different communities (Krishnakumar, 2006). Proposals for amendment of the Kerala State Subordinate Service Rules (KSSSR) have been approved by the Cabinet (see Box 7.1).

2.2 Education and Employment: Multiple Dimensions of a Relationship

The desire for enhancing educational qualifications continues to be strong in Kerala. The 2003 CDS survey showed that 46 per cent of the people between 15 and 59 years have an educational attainment of secondary school (Secondary School Leaving Certificate or SSLC) and above. This was 37 per cent in 1998. This share is likely to increase in future given the high enrolment and low (and declining) drop-out rates at the school level. Despite high levels of unemployment, this is understandable considering that the incidence of unemployment declines as educational attainments

Box 7.1: Social Justice Reassured

The three-member Justice K. K. Narendran Commission appointed in February 2000 by the former Communist-led government submitted its Report in November 2001. It extensively examined the question of protection of reservation rights of backward communities in terms of representation in public services and found that all backward communities have not received adequate representation. The Commission therefore, recommended that the Government should take necessary steps to rectify this anomaly. The Commission also recommended educational advancement of the communities which have experienced shortfalls in the supply of candidature for government jobs.

The State Government has resolved the conundrum of loss of reservation rights of backward communities in public service at its recent Cabinet meeting, by deciding to make necessary amendments to the KSSSR to ensure that not even a single job reserved for a backward community is lost to it on any account. For this purpose, amendments to existing rules would be enacted to include in supplementary lists five times the reservation quota of vacancies for each specific backward community. In cases in which eligible candidates are not found in any community for the number of vacancies reserved for it, such vacancies would be filled through direct recruitment on the basis of notifications made specifically for the purpose. In furtherance of these objectives, 20 per cent of seats would be reserved in degree and post-graduate courses in colleges and universities for backward community candidates. Reservation of ten per cent of the seats would be made also for candidates of forward communities who belong to households below the poverty line.

It is interesting to note that in his reaction to the Cabinet's announcement, Justice Narendran stated that while the measures announced will help minimise the deficiency at least in the future, the government was silent on one important aspect – the loss of Backward Class posts due to non-application of a 'fundamental aspect of reservation', that merit seats should not be counted against reserved posts (*The Hindu*, January 27, 2006).

rise above the secondary school level. Specialised educational qualifications further enhance the prospect of employment. Besides, the educated in Kerala seem to aspire for 'jobs' denoted by regularity, better work conditions and social security rather than 'work' alone. Earlier surveys in 1989 as well as in 1973-74 (Mukherjee and Isaac, 1994 and CDS-UN, 1975) revealed that the educated were prepared to wait for 'jobs'. Significantly, the 2003 survey found that the majority of the educated labour force in Kerala belongs to the young age group of 15 to 34 years (58 per cent for males and 68 per cent for females). The fact that the younger generation of women has a higher educational attainment than younger men calls for special mention here.

However, the very high aggregate literacy levels in the State have tended to obscure two important trends. They are (a) the only marginally higher (than all-India) proportion of 'graduate and above' category among both men and women in Kerala as discussed elsewhere in the Report; and (b) the gender differentiated pattern of higher education within the State as it has evolved

over time. Analysis of data from the Census reveals that gender disparity in education is extremely low in class X and has even been reversed to some extent at the pre-university and non-technical diploma levels. Besides, currently women far exceed men in graduate and postgraduate education in arts and science courses as well as in nursing and teachers training.³ While there continues to be a significant gender gap in the more job-oriented professional courses, it has declined consistently between 1971 and 1991; women formed a little over one-third of the students enrolled in engineering colleges in the State (Eapen and Kodoth, 2003). More generally, girls have continued to trail boys in technical education; and interestingly, the worker sex ratios vary considerably between trades. In the job-oriented lower technical educational institutions between 1997-98 and 2000-01, the intake of girls was below 10 per cent in technical schools and between 13 and 22 per cent in two-year courses of ITIs/ITCs. In a striking contrast, there was a preponderance of women in some of the one-year courses of the ITIs and ITCs – stenography, dress-making, cutting and tailoring,

3 About two-thirds of the students enrolled in graduate courses were girls and almost three-fourths in post-graduate courses (GOK, 2001).

secretarial practice and data preparation – during the same period (Government of Kerala, 2001).⁴

2.3 Quality of Employment

At a basic level, as dictated by data availability, quality of employment is examined in terms of 'casual employment', 'self-employment' and 'regular employment'. The evidence presented in Table 7.5 indicates a higher level of regular employment for rural men and women in Kerala compared to all-India levels. The urban women in Kerala also compare well with all India. The tendency during the 1990s is one of significant increase for rural women followed by marginal increase for rural men and urban women. However, there is a decline for urban men.

Self-employment is a mixed category and hence need not necessarily be an indication of higher quality of employment than casual labour. In the Indian context, it may not be far off the mark to say that a considerable section of the self-employed are usually the labouring poor and this might hold good for Kerala too (see Section 1.6).

The greater incidence of casual employment among men in Kerala is in contrast to the all-India situation. However, both in Kerala and at the all-India level, there is a higher incidence of casual employment in rural areas than in urban areas. The quality of casual employment is reckoned to be higher in Kerala given higher wage rate, a high degree of unionisation leading

to stable working hours, and non-wage benefits through such collective care arrangements as welfare funds and other social security measures (Kannan 1992, 2001 and 2002). These factors could be attracting more men than women.

2.4 Characteristics of the Employed

The nature of employment in terms of regularity and security is expected to be an important issue for the educated. In general, a quarter of the educated employed in the 2003 survey reported being self-employed and around 16 per cent were in casual employment, leaving around 60 per cent in regular/permanent employment. Regular employment denoted continuity of employment but no security whereas permanence denoted security as well.

In general, the educated prefer salaried employment as denoted by regular/permanent employment followed by self-employment. An overwhelming majority of women reported regular/permanent employment (82 per cent), with 11 per cent being in self-employment and only around 7 per cent in casual employment as opposed to 51, 19 and 30 per cent, respectively, for men (Table 7.6). In this context, it is not surprising to find that a higher proportion of women is employed in the public sector (45 per cent) than men (34 per cent). Education is associated with greater access to employment in the public/private sectors. Higher educational qualifications went alongside higher employment

Table 7.5: Employment by Status, National Sample Survey Organisation

	Self Employment			Regular Employment			Casual Employment		
	1987-88	1993-94	1999-00	1987-88	1993-94	1999-00	1987-88	1993-94	1999-00
Kerala									
Rural Male	44.6	40.8	38.1	12.2	12.3	13.0	43.2	46.9	48.9
Rural Female	57.7	55.0	53.0	9.4	9.7	15.0	32.9	35.3	32.0
Urban Male	41.0	37.5	37.4	32.6	26.8	28.0	26.4	35.7	34.6
Urban Female	51.5	45.8	50.9	30.9	26.6	31.9	17.6	27.6	17.2
All-India									
Rural Male	58.6	57.7	55.0	10.0	8.5	8.8	31.4	33.8	36.2
Rural Female	60.8	58.6	57.3	3.7	2.7	3.1	35.5	38.7	39.6
Urban Male	41.7	41.7	41.5	43.7	42.2	41.7	14.6	16.1	16.8
Urban Female	47.1	44.8	45.3	27.5	29.2	33.3	25.4	26.0	21.4

Source: 1987-88: *Sarvekshana*, September 1990; 1993-94: *Sarvekshana*, July-September 1996; 1999-00: "Employment and Unemployment Situation in India", 1999-2000, Report No. 458, NSS 55th Round, NSSO, Government of India, May 2001 *Sarvekshana*.

⁴ For more details and analysis see Eapen and Kodoth (2003).

Table 7.6: Employment Status, CDS Survey

Employment Status	Male	Female	Total
Casual	19.0	6.6	15.6
Regular	19.2	31.5	22.5
Permanent	32.1	50.7	37.1
Self-employment	29.7	11.3	24.8
Total	1,032	381	1,413

Source: CDS Survey on Employment and Unemployment, 2003.

in the public sector – 58 per cent of those with professional qualification are in the public sector while it is only 21 per cent for those with SSLC and 35 per cent with higher secondary.

As against regular employment, casual employment is not only irregular but also widely perceived to be low-skilled work. Women's position in casual and self-employment is strikingly low but needs to be read with caution. Two other indicators can help us interpret the survey findings. One, the worker sex ratio (female employees per 1,000 male employees) in the organised sector was 542 for Kerala (the highest among the 15 major States) *vis-à-vis* 188 for all-India. However, worker sex ratio was very high in the private organised sector, 848 compared to 344 in the public sector (Srivastava, 1999). The figures over time reveal that the growth in the proportion of women in organised sector employment in Kerala, like in rest of India, has been in the private sector where conditions of work are less formal; the share of public sector employment has been declining in the 1990s (Government of Kerala, 2001).

Two, primary research suggests that women avoid low paid and low status manual work, wherever possible. Women in poorly paid cashew work went to considerable lengths to see their daughters married to men who would provide for them as housewives (Lindberg, 2001). Where they were involved in such manual work on the household compound or for relatives, women were often reluctant to reveal this, fearing loss of social status (Osella and Osella, 2001). There is also substantial documentation of women's failure to distinguish work in the household compound or home-based work from house work, particularly where it involved allied activities such as agriculture or dairying (Narayana, 2002; Arun, 1999). Early in the recent phase of migration, it was noticed that the withdrawal of women from paid manual labour in migrant households influenced poor non-migrant

households to behave in the same way at the cost of considerable hardships (Mencher, 1989). Hence, Kerala is no exception to the pattern of women who report unemployed or are engaged in housework, working for the provision of the household through unpaid services while also balancing resources with needs and thrift (Kodoth, 2004a). It is this particular aspect of women's invisible work that programmes with high visibility in public policy, such as *Kudumbashree*, that combine micro-credit with small-scale development initiatives through women, have tried to build upon. Hence, at least part of the explanation is the very high incidence of unemployment among educated women in the State.

A detailed economic sector-wise classification reveals that men's employment is relatively spread across sectors with construction, trade and commerce, and community and social services accounting for 14-15 per cent each followed by non-household manufacturing (10 per cent), education (9 per cent) and transport (8 per cent). In contrast, 75 per cent of the women were concentrated in four sectors, with education showing the highest concentration at 39 per cent followed by health, community and social/personal services, and trade and commerce (11-12 per cent each). This is influenced by the concentration of women, noted earlier, in a rather narrow set of educational segments, already identified with them.

Education provides a further differentiation of this employment profile. The less educated (SSLC and HSC) are spread over in a number of sectors but mostly in construction, trade and commerce, community and social/personal services, non-household manufacturing (e.g. processing industries such as coir, cashew and fish), transport and education. Those with higher education such as post-graduates and professionals have a high concentration in education, health and community and social/personal services.

The occupational profile of those employed revealed that half the women reported being professional or technical workers, as against only 20 per cent of men. This was followed by clerical and related work with 31 per cent of women as against only 22 per cent of men. Four out of five women workers seem to be in professional/technical/clerical employment as against two out of five men. A higher proportion of men than women was working in production/transport activities and in managerial occupations.

Compared to the all-India pattern, however, Kerala's historical specificity has thrown up a more differentiated industrial structure, with a much larger proportion of women in non-agricultural employment (40 per cent, the highest in India). Agriculture still accounts for about 60 per cent of female employment in rural areas, though absolute numbers employed have been declining (Appendix Table A7.2). The decline is partly due to a changing cropping pattern and partly because young, literate work seekers are unwilling to work in this low status occupation. There is significant district-wise variation. The 2001 Census reveals that the percentage of cultivators, men and women, among all workers is significantly higher in the eastern hilly districts of Idukki and Wayanad. However, Palakkad, a major rice growing area, has the highest percentage of female agricultural labourers, more than half of all women workers and correspondingly the lowest level of other workers. For men in contrast, Palakkad follows Wayanad and Idukki. Thus, while more than 60 per cent of all workers in Kerala are 'other workers', in Idukki and Wayanad, it is only about 50 per cent (Table 7.7).

Significantly, the 2003 survey found only around 3 per cent of educated employed women between 15 and 59 years were in agricultural and allied activities. According

to the NSSO data, the non-agricultural segments, which absorb a high proportion of women, are manufacturing, trade, hotels and public administration, social and personal services; in all these, women's employment has grown in the 1990s. However, direct estimates of employment in the informal sector⁵ in 1999-00 show that manufacturing, construction and trade – all industry segments in which the share of informal sector is high – absorb higher proportions of women workers. Over three-fourths of the female workers in manufacturing are in the informal sector compared to less than 70 per cent for males and 81 per cent in construction *vis-à-vis* 70 per cent for males. The share of the formal sector is high in public, social and personal services.

Given this data on industrial distribution of women workers, changes in women's employment by status – viz. the significant increase in regular employment, particularly in urban areas, from about 26 to 32 per cent between 1993-94 and 1999-00 is surprising (Table 7.5). With such a large proportion of women in the manufacturing sector, construction and trade being in the informal sector, and a context in which the formal sector is becoming 'informalised' (Unni, 2001), there is reason to revisit this whole notion of 'regular' employment as defined by the NSSO (Eapen, 2001).

Table 7.7: Percentage Distribution of Category of Workers (Main and Marginal), 2001 by District

Districts	Cultivators			Agricultural Labourers			Household Industry			Other Workers		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Thiruvananthapuram	5.5	4.4	5.2	16.3	12.1	15.4	2.7	9.4	4.2	75.5	74.2	75.2
Kollam	8.5	2.1	6.8	17.4	7.4	14.7	2.1	3.4	2.4	72.1	87.1	76.1
Pathanamthitta	16.0	5.4	13.5	21.2	16.0	20.0	2.0	4.1	2.5	60.9	74.5	64.0
Alappuzha	4.7	1.1	3.6	12.9	16.8	14.1	4.1	13.9	7.1	78.4	68.2	75.3
Kottayam	9.3	2.1	24.5	12.7	15.2	41.7	2.3	6.6	10.0	75.7	76.2	23.8
Idukki	25.5	12.2	21.2	24.6	32.1	27.0	1.1	2.0	1.4	48.8	53.7	50.4
Ernakulam	5.7	3.9	5.2	6.2	13.5	8.0	2.1	4.6	2.7	86.0	77.9	84.1
Thrissur	5.9	4.0	5.5	8.6	20.2	11.4	3.8	9.1	5.1	81.8	66.7	78.1
Palakkad	10.0	7.0	9.1	23.8	56.7	33.7	3.2	3.6	3.3	63.1	32.6	53.9
Malappuram	6.9	4.3	6.5	16.2	27.5	17.8	1.5	4.0	1.9	75.4	64.2	73.8
Kozhikode	3.5	2.6	3.4	7.8	10.8	8.2	1.4	3.9	1.8	87.3	82.6	86.6
Wayanad	19.8	9.8	16.9	27.8	37.4	30.6	0.8	1.2	0.9	51.6	51.6	51.6
Kannur	6.1	6.9	6.3	10.5	22.6	13.5	1.9	4.5	2.5	81.6	66.1	77.7
Kasaragod	5.8	2.6	4.8	9.6	10.9	10.0	2.4	33.7	12.0	82.2	52.8	73.2
Kerala	8.0	4.7	7.2	14.2	22.0	16.1	2.3	7.3	3.5	75.5	66.0	73.2
Coefficient of Variation (%)	65.4	62.3	69.7	42.8	60.1	52.5	40.4	107.4	78.0	16.2	21.2	24.3

Source: Primary Census Abstracts 2001, Census of India 1991, 2001.

⁵ This data is brought out for the first time by the NSSO together with the 55th Round on Employment and Unemployment in India.



Is educational status related to higher earnings? The 1975 CDS study raised this question and observed that:

“...a comparison of the pay received by matriculates, who are by far the most numerous category among the educated, with the estimated earnings of shop assistants and agricultural labourers suggests that education does not confer a significant advantage with respect to pay.” (CDS-UN, 1975:129).

This statement seems to hold good even after 30 years though, in general, the less educated (those with 10 or 12 years of schooling) have lower income and those with higher education, especially post-graduate/professional education have higher income (Table 7.8).

Interestingly, women with a diploma earn more than those with graduate degrees. Women’s earning is relatively lower than males in all educational categories, except among the diploma holders. Further wage labourers in Kerala may even have a slight advantage in income compared to those with secondary and higher secondary education, who are on the look out for regular jobs. The average agricultural wage rate in 2003 (i.e. unskilled rural worker)

is Rs. 120 for males and Rs. 80-100 for females. Given an average employment of only 20 days a month, this works out to more than Rs. 2,400 for men and Rs. 1,600-2,000 for women, i.e. only marginally lower than the earnings of those with secondary and higher secondary education. In some employment, such as shop assistants, young women offer themselves for monthly salaries of around Rs.1,000, i.e. considerably lower than the earnings of an unskilled female worker even if the days of employment is counted as 15 days a month. The income of the professionally qualified are without doubt higher than that of post-graduates in the liberal arts and sciences.

There is thus a strong preference for a ‘job’ as opposed to ‘work’ even if it implies a lower level of earnings. The accent seems to be on regularity of income, social status and work environment. Casual work involves mostly manual work under fairly harsh conditions, whereas a job in an establishment offers a different, if not necessarily better, work environment. Introduction of new technologies involving less physical and arduous labour often attracts otherwise unemployed youth as seen in the case of the use of such agricultural machinery as tractors, harvesters, water pumps, winnowing machines, etc. A combination of regularity of work and better technology could be an answer to the current scarcity of labour involving physical work in Kerala.

2.5 Profile of the Self-Employed

Self-employment accounted for 13.5 per cent of the labour force (or 25 per cent of the work force). Trade and commerce and agriculture accounted for half of the employed. The single largest group of men (37 per cent) was in trade and commerce while agriculture, including livestock, accounted for 35 per cent of women. In contrast, agriculture accounted for 16 per cent of men and trade and commerce for 14 per cent of women.

Table 7.8: Median Monthly Income by Education for Regular and Permanent Employment (in Rs.)

Education	Male	Female
Secondary School Leaving Certificate	2,791	2,181
High School Certificate	3,613	2,320
Diploma	4,159	4,139
Degree	4,716	3,256
Postgraduate	5,411	4,533
Professional	8,290	6,016
All	4,242	4,087

Source: CDS Survey on Employment and Unemployment, 2003.

Educational levels make a difference to this picture only in so far as post-graduates and professionals are concerned. For post-graduates, trade and commerce continues to be the single largest sector but a significant share (27 per cent) is in education followed by hotels and restaurants and community and social/personal services (13 per cent each). That 7 per cent of the post-graduates are self-employed in agriculture is an interesting finding. For professionals, the single largest sector is construction (33 per cent) followed by health (21 per cent; these would be doctors) followed by education and community and social/personal services (8 per cent each).

An overwhelming majority (84 per cent for women and 73 per cent for men) reported family and/or friends as the source of finance and this did not make any difference according to educational levels. As such the evidence does not suggest an active involvement of financial institutions in helping those who would like to generate their own employment.

Most reported (75 per cent) that education helped to start self-employment and this held good irrespective of the level of education. The share was higher for those with higher educational levels.

2.6 Occupational Mobility

The status of employment is influenced by occupational mobility. Estimates from the NSSO for the number of usual principal status employed persons per 1,000 workers who changed their establishment of work, status/ industry of work and occupation of work during last two years appear to be very unfavourable to women. In terms of status, not a single woman worker per 1,000 employed women in urban areas changed her status in this period; in terms of occupation, such proportions were barely one-fifth for men

in both rural and urban areas. However, the proportion of men and women changing establishments was not very dissimilar (Eapen, 2004). Hence, women are more mobile between establishments while hardly achieving any upward mobility.

In this context, micro studies provide further insight. Boxes 7.2 and 7.3 indicate that greater diversification of household incomes, significant male out-migration and high levels of male occupational mobility have been associated with the confinement of women to low paying conventional occupations or their withdrawal into 'household duties'.

2.7 Dimensions of Unemployment

'Unemployment rate is X per cent' is a one-dimensional definition of unemployment i.e., those without work out of the total labour force. It refers to the 'time' dimension of unemployment. In the early development literature, the limitation of this definition and measurement was highlighted through the concept of 'disguised unemployment', i.e. those who may be spending time working but without adequate income or output.

Box 7.2: In Reverse Gear? Women's Work Profile Over Time

Women registered much less occupational mobility than men between 1971 and 1986-87 in a predominantly rice cultivating central Kerala village that was little affected by Gulf remittances (Chasin, 1990). In 1986-87, the largest proportion of women were engaged in household duties (36 per cent, though this was a decline from 54 per cent in 1971) or were unemployed (32 per cent as against 19 per cent of men). Despite unemployment, demand for female agricultural labour went unmet "as women seem to prefer unemployment to labouring in the paddy fields". Nevertheless, agricultural labour continued to be the major avenue of female but not of male employment. In the same village, there was a strongly diverging trend between male and female employment; women were almost on par with men as students; but petty trade, skilled labour, white collar, service work, farmer and professional employment were dominated by men at an average ratio of 10:1 (Franke and Chasin, 1996).

Box 7.3: Male Migration and Female Seclusion

Research on the predominantly male out-migration demonstrates the powerful influence that increased access to economic resources has on women's work patterns (Sivanandan, 2002; Zachariah et al, 2003; Kurien, 2002; Osella and Osella, 2000). In Kadakavur, a south Travancore village, women were greatly involved in coir manufacturing work in 1961, when it was the subject of a village monograph by the Census of India. Since, households in the village have had considerable access to other incomes, particularly through remittances from the Gulf, female work participation plummeted from 43 per cent in 1961 to 27 per cent in 1999 as against which women in 'household duties' rose from 16 per cent of women non-workers in 1961 to 32 per cent in 1999. A second feature borne out in these studies is that women in upwardly mobile or affluent households retreat from poorly paid manual and/or informal sector work but are not averse to employment considered 'respectable', particularly regular jobs in the Government sector.

A third dimension was added in terms of production or productivity. This was intended to take care of situations where income may increase but without a corresponding increase in production or productivity (e.g. salaries of Government employees). While this aspect is not without significance, it is the 'recognition' dimension of unemployment put forward by Amartya Sen that has particular importance for Kerala. The recognition aspect refers to the phenomenon of people having a job but nevertheless regarding themselves as 'unemployed'. This arises from perception of lack of adequacy and self-fulfilment from current employment. The 2003 survey sought to capture this phenomenon, believed to be fairly widespread in the Kerala context.

2.8 Time Dimension

The time dimension of unemployment is sought to be captured in India through the NSSO survey. Here again, multiple measures have emerged because of the awareness of the importance attached to the intensity of unemployment.⁶ The most intense form of unemployment is referred to as 'chronic unemployment' – defined as 183 or more days spent without work in the year preceding the survey period. Table 7.9 shows that according to this measure, the incidence of overall unemployment in Kerala has been over four times the national average for the last 25 years or so. Different aspects of the time dimension by gender, youth, level of education and spatial are examined here.

2.9 Gender and Unemployment

If a single fact were to convey the intensity of the problem of unemployment in Kerala, it is that unemployment among

women is two to three times higher than among men. And while educated unemployment has declined for all men in the 1990s, it has increased for women, particularly in rural areas. In the urban areas, where it is the highest, female educated unemployment is 34 per cent in contrast to 7 per cent for men (Table 7.10). While spatial difference was muted in comparison to that of gender, in general, urban unemployment exceeded rural though there was some signs of a reversal of this trend in the case of men.

In contrast to Kerala, at the all-India level, the spatial difference was more pronounced than the gender difference. In fact, in the case of rural areas, incidence of unemployment among women was lower than that of

Table 7.10: Unemployment Rates for the Educated (15 years & above)

	Kerala		All-India	
	1993-94	1999-00	1993-94	1999-00
Usual Principal and Subsidiary Status				
Rural Male	15.6	11.2	6.5	5.6
Rural Female	32.3	36.7	15.0	14.6
Urban Male	11.2	7.4	6.0	6.2
Urban Female	34.9	34.2	18.2	14.3
Usual Principal Status				
Rural Male	18.5	15.0	8.8	6.8
Rural Female	49.6	49.1	24.9	20.4
Urban Male	12.6	9.9	6.9	6.6
Urban Female	40.6	41.9	20.6	16.3

Source: 1987-88: *Sarvekshana*, September 1990; 1993-94: *Sarvekshana*, July-September 1996; 1999-00: "Employment and Unemployment Situation in India", 1999-2000, Report No. 458, NSS 55th Round, NSSO, Government of India, May 2001 *Sarvekshana*.

Table 7.9: Incidence of Various Measures of Unemployment

Year	Kerala	All India	Kerala	All India	Kerala	All India
	Chronic Unemployment (UPS)		Seasonal Unemployment (CWS)		Seasonal Unemployment (CDS)	
1977-78	19.8	5.5	12.7	4.9	25.7	8.9
1983	13.1	2.9	15.4	4.7	25.9	8.7
1987-88	17.1	4.2	17.6	5.2	21.2	6.8
1993-94	10.1	2.6	9.7	6.0	15.5	6.0
1999-00	11.4	2.7	12.7	4.3	21.0	7.3

Source: 1987-88: *Sarvekshana*, September 1990; 1993-94: *Sarvekshana*, July-September 1996; 1999-00: "Employment and Unemployment Situation in India", 1999-2000, Report No. 458, NSS 55th Round, NSSO, Government of India, May 2001 *Sarvekshana*.

⁶ The National Sample Survey reports mainly three measures of unemployment. According to the Usual Principal Status (UPS), the reference period is 365 days preceding the date of survey. If a person is unemployed for a major period, he/she is unemployed by UPS. Another measure is based on Current Weekly Status (CWS). As per this measure, if a person did not find work even for one hour in any day previous to the seven-day period, he/she is unemployed. The third measure is based on Current Daily Status (CDS) wherein each day of the previous seven days is classified as working or not working based on one to four hours as half day and more than four hours as full day.

men in the 1990s. Urban women were the most affected in Kerala and at the all-India level, and rural men were the least affected in Kerala in a ranking of the groups in terms of the intensity of unemployment.

However, as seen in Table 7.11, in the early 1980s, women were at a greater disadvantage irrespective of the level of education. By the end of 1990s, the situation changed slightly, as women with higher qualifications experienced lower unemployment compared to less educated men and women. Overall, however, it is likely that women, unable to procure jobs commensurate with their educational skills and preferences, are choosing to be unemployed. Also, women continue in the educational stream in Kerala in the absence of 'desired' employment opportunities. The greater opportunity set of male employment, increasingly away from agriculture but with resort to options like migration which call for high degrees of mobility, is certainly a factor in the gender gap in unemployment. Reflecting social norms regarding women's employment, women also display stronger preferences regarding the kinds of employment they are willing to take up. Nearly three-fourths of the unemployed women in a recent study of women's education, employment and job preferences reported that they were unemployed because they had not been able to find jobs of their preference (Lakshmi Devi, 2002). Of the factors constituting preference, social status and proximity to the home were the most important.

Box 7.4: Gender and Migration: An Overview

Given that migration both outside and within the country is a significant employment option for men, it is certainly a factor in the intensity of female unemployment in the State. A Gulf migration study undertaken in 1998 found that only 10 per cent of 3,752,000 migrants from the State in 1998 were women. Significantly, nearly half (46 per cent) of the number of the economically active female emigrants were job seekers before emigration. The corresponding percentage among males was only 27 per cent. The differentials persisted at much lower levels at the destination – 5.6 per cent among the females and 0.5 per cent among males. "Female migrants are better qualified than male migrants, but lower proportion of them get gainfully employed. Migration causes separation of wives from husbands... Few husbands are left behind by migrating wives but most wives are left behind by migrating husbands." While emigration was essentially a male affair, women had a higher representation among internal migrants. There was also a social group dimension to this. More than half the number of emigrants were Muslims but only one-fourth of the total number of female emigrants was from this group. The Christian community contributed nearly half the number of female emigrants and around 75 per cent of all female out-migrants (Zachariah et al, 2003).

Table 7.11: Ranking of Incidence of Chronic Unemployment According to Educational Attainments

Rank	1983	Unemployment Rate	Rank	1993-94	Unemployment Rate	Rank	1999-00	Unemployment Rate
1	Urban Women (M)	52.4	1	Rural Women (S)	45.0	1	Urban Men (M)	44.0
2	Rural Women (S)	50.5	2	Rural Men (S)	36.2	2	Rural Women (S)	37.5
3	Rural Women (GA)	43.4	3	Urban Men (M)	35.5	3	Rural Men (M)	37.0
4	Urban Women (S)	40.5	4	Urban Women (S)	34.1	4	Urban Women (S)	36.9
5	Rural Women (M)	38.6	5	Urban Men (S)	29.9	5	Urban Men (S)	33.2
6	Rural Men (S)	26.6	6	Urban Women (M)	26.0	6	Rural Men (S)	31.0
7	Urban Women (GA)	25.6	7	Urban Women (GA)	22.0	7	Rural Women (GA)	24.9
8	Urban Men (M)	19.8	8	Rural Men (M)	20.7	8	Urban Women (GA)	21.6
9	Rural Men (M)	16.9	9	Rural Women (GA)	20.0	9	Rural Women (M)	20.9
10	Urban Men (S)	15.1	10	Rural Men (GA)	19.9	10	Urban Women (M)	20.3
11	Urban Men (GA)	11.3	11	Rural Women (M)	17.3	11	Rural Men (GA)	9.8
12	Rural Men (GA)	10.5	12	Urban Men (GA)	10.0	12	Urban Men (GA)	5.4
13	Rural Women (PB)	8.5	13	Rural Men (PB)	6.2	13	Rural Women (PB)	1.3
14	Urban Women (PB)	8.4	14	Rural Women (PB)	2.1	14	Rural Men (PB)	1.2
15	Urban Men (PB)	6.7	15	Rural Women (PB)	1.0	15	Urban Women (PB)	0.3
16	Rural Men (PB)	1.3	16	Urban Men (PB)	0.3	16	Urban Men (PB)	0.1

Note: PB stands for Below Primary, M for Middle School, S for Secondary level and GA for Graduates and above.
Source: NSSO (1983, 1993-94, 1999-2000 Rounds).

2.10 High Youth Unemployment

The National Sample Survey also revealed that apart from the high incidence of unemployment among women in general, the youth seem to have a high unemployment rate. Young men in the age group of 15-25 experience a high unemployment rate while this is true for the 15-30 age group for women. Women have higher incidence than men but the difference is much less sharp as compared to all women and all men. Urban men experience a higher rate of unemployment than rural men, but this is somewhat reversed in the case of women. At the all-India level also, urban unemployment is higher than rural unemployment, both for men and women.

2.11 Educated Unemployed

That the problem of unemployment in Kerala is basically one of educated unemployment has already been highlighted. For those below the primary level of education, chronic unemployment is almost negligible, i.e. less than 2 per cent for the last two decades. While it is around 5 per cent among those with middle school education, the rate is not high enough to be characterised as very serious or alarming. In this category, urban women have the highest incidence of unemployment. As educational attainments increased, the unemployment rates declined to well over 20 per cent until the early 1990s and further to around 13 per cent in the late 1990s. The highest incidence of unemployment is among those with just secondary level of education, with rates well above 30 per cent throughout the last two decades. Women experience three times higher incidence of unemployment than this category of educated men. However, even among the highly educated women in Kerala, (graduate and above) latest data reveals that worker participation rates were 37 per cent (urban) and 32 per cent (rural) compared with 87 per cent and 82 per cent, respectively, for men (Appendix Table A7.3). Further, gender disparity in levels of educated employment (ratio of male graduate WPR to female graduate WPR) has widened from 2.0 to 2.4 in the 1990s.

2.12 Rural-Urban Difference in Kerala and India

Technically, it will be correct to conclude that unemployment rates in rural Kerala are far higher than at the all-India level. However, the rural and urban continuum in Kerala will suggest that it is open unemployment. For India there is a

significant rural-urban difference giving rise to the possibility of a high magnitude of 'disguised unemployment'.

2.13 Income Dimension

The difference between Kerala and all-India in terms of the time measure of unemployment gives us some clue to the importance of the income dimension. While unemployment at the all-India level, as measured through the NSS, ranges between 2-3 per cent, the incidence of income-poverty was around 30 per cent in 1999-2000.⁷ This means poverty is at least 10 times the incidence of unemployment, pointing to the low income-earning capacity of the employed (e.g. low wages of rural labourers) and/or the existence of disguised unemployment (among the self-employed).

The contrast with Kerala should be an eye opener. While the latest unemployment rate is around 11 per cent, the incidence of income-poverty is around 12 per cent, i.e. more or less the same as the former. Given the fact that unemployment rates are quite low among the unskilled (indicated by low levels of education), the phenomenon of unemployment is very weakly, if at all, associated with poverty. This could be the case given the high rate of wages of rural labourers and the possible low level of disguised unemployed. However, more broader measures of unemployment indicate that there could be considerable underemployment in the sense of less number of days of work, especially of those in casual employment. This, in fact, is the case.

2.14 Understanding the Problem of Educated Unemployed

The 2003 survey attempted a measurement of unemployment based on the current status of the sample population at the time of survey, though such measurement was not its primary focus. It was found that 45 per cent of those in the labour force were unemployed. However, if we remove students (who are also seeking work) from this group, it comes down to around 38 per cent. By any interpretation, this is a very high figure.

That educated unemployment is concentrated among the youth has also been confirmed by our primary survey of 2003. In general, it is also concentrated among those with lower educational qualifications (10 or 12 years of school education only) but not necessarily so. Those with degree

⁷ The incidence of poverty as per official estimates was reported as 26 per cent. However, there has been a debate on the methodological aspects of this estimation. The unofficial estimate is 30 per cent. See, e.g. Deaton and Dreze (2003).

and post-graduate degrees in arts and sciences also show a higher incidence of unemployment. The lowest incidence is among those with professional qualifications followed by those with some diploma (indicating specialised skill). Such a phenomenon perhaps explains the tendency for acquiring professional education rather than the conventional degree or post-graduate degree in arts and sciences. The survey showed that the proportion with professional qualifications was higher than those with just post-graduate education in humanities and sciences (8 per cent versus 4 per cent for males and 9 per cent versus 5 per cent for females). This also points to the increasing pressure for expanding educational facilities in Kerala for professional courses. A significant number of young men and women from Kerala continue to seek admissions in professional courses outside the State, especially in neighbouring Tamil Nadu and Karnataka. This has prompted the Government to open up higher education, especially professional education, to the non-State sector through a system called 'self-financing institutions' (as discussed in Chapter 6).

While the educated female labour force also finds a higher incidence of unemployment among the youth, the incidence was found to be well above 60 per cent up to the age of 40. After that, it declines to around 27 per cent. This, once again, underlines the severity of unemployment among educated women.

The average waiting time for educated unemployed in the age group 15-34 is 5.2 years for male and 7 years for females. There is an inverse relationship between average waiting time and level of education. The duration of unemployment is longer with SSLC education (7.6 years for male and 9.8 years for female) than with professionals (1.8 years for male and 3.1 years for female). In all educational categories, duration of unemployment is longer among females than among males.

Earlier, we had indicated that the educated tend to look for a 'job' rather than 'work' per se. A probe into the kind of job preferences revealed that there was not much difference in preference as between males and females. One-third of the unemployed did not have any preference while two-thirds preferred to have either a permanent or temporary job. Of them, half wanted the job to match their qualifications. Further probing in terms of educational attainments suggested that the category of low educational attainments (10 or 12 years of schooling) along with post-graduates registered a higher percentage without any preference. Expectedly, only 16 per cent of the professionals reported no preference. Job preference was also found to be influenced

by economic position, in that those with a higher economic status reported some kind of preference (68 per cent) compared to those in low status (40 per cent). The survey also revealed that nearly 95 per cent of women as against 69 per cent of men preferred a job at a convenient place.

Kerala is well known for the migration of its people in search of jobs, which should be reckoned as a function of its incidence of unemployment. In recent times, international labour migration has outpaced migration to other parts of India. However, given a choice the preference was seen for employment in what was called a 'convenient place'. Only 14 per cent preferred to go outside Kerala. Among men, this was much higher, almost one-third compared to just 5 per cent among women. From an educational point of view, those with diplomas reported the highest share (one-third) of those prepared to work outside Kerala.

Do the high rates of unemployment discourage people from seeking a job and thus opt out of the labour market? The 2003 survey indicated that the proportion of persons in the educated labour force not seeking work was only 10 per cent of the total labour force. However, they were mostly women (265 women out of 295 persons not seeking work). Therefore, if we can speak about 'discouraged workers', they are mostly women constituting one-fifth of the total women labour force or 10 per cent of the total labour force. Taken together, these threads of information do support earlier findings that preferences regarding place of work was a much stronger constraint for women than for men. In the survey, 95 per cent of women preferred a job at a convenient place and 90 per cent of those not seeking work were women, who were discouraged workers. Besides, only 5 per cent of women as against 20 per cent of men preferred a job outside India and while almost all women had some preference regarding place of work, 12 per cent of men had no such preference.

How do the unemployed maintain themselves? Although Kerala has an unemployment allowance, it is only nominal. As such, it was not surprising to find that their family members were maintaining 85 per cent of the unemployed. This proportion remained stable, irrespective of gender, educational or economic status.

How do the unemployed spend their time? Gender difference here was quite sharp, with 40 per cent of males reported 'studying', indicating their continuing effort to enhance educational qualifications while another 36 per cent were engaged in household work. The remaining 24 per cent were either idling or meeting 'social' commitments or some such things. Only 20 per cent of the females reported studying,

with another 78 per cent reporting household work and very few reported idling or doing something else.

Contrary to our expectations, only a very small percentage of the unemployed were members of some or the other political or social organisation (only 7 per cent). There was hardly any gender difference.

2.15 The Recognition Aspect of Unemployment

The recognition aspect of unemployment discussed earlier was taken up for inquiry among those employed for a wage or salary in the 2003 survey. It was found that 32 per cent of the men and 20 per cent of women reported that they felt their job was not commensurate with their qualifications. Clearly, men experienced a greater mismatch than women. The lower proportion of women corresponded with their higher shares in regular/permanent employment. However, given our earlier discussion of women's position in regular employment in terms of hierarchy, growing casualisation of formal sector work and in the share of the informal sector, it may be incorrect to conclude that employed women do not have a recognition problem. Some part of this may well be an artefact arising from the conditioning of women's aspirations on lines distinctly different from that of men.

This question was also posed to those self-employed. Here, the mismatch was found to be smaller (18 per cent) with only marginal difference between men (18 per cent) and women (16 per cent). This can probably be due to the fact that the choice of self-employment has a strong association with the knowledge/skill acquired through education, as we shall see later. However, when they were asked whether they continued to be seeking employment, 46 per cent of the self-employed reported that they were (46 per cent for men and 42 per cent for women). This proportion was the highest for diploma holders (66 per cent), followed by post-graduates (60 per cent) and professionals (50 per cent). This seems to indicate that self-employment is perceived as a transitional arrangement. This indicates the multiple facets of the recognition problem itself.

3. Aspects of Gender-related Unfreedom

3.1 Introduction

It is being argued now that the much lower gender gap in basic capabilities in Kerala need not necessarily suggest

a 'high status' for women (Eapen and Kodoth, 2003). It is true that the Gender Development Index estimated at the regional level by several scholars' places Kerala at the top. In respect of Gender Empowerment Measures too, which attempt to measure empowerment or autonomy in terms of the extent to which women are able to use their basic capabilities to acquire decision-making powers, both economically and politically, Kerala is at or near the top (Mehta, 1996; EPW 1996). Yet, on more direct measures of autonomy, including household decision making, mobility and access to/control over money, Kerala trailed Gujarat, which had much lower levels of literacy (Visaria, 1996; Rajan et al, 1994). The second National Family Health Survey, 1998-99, which incorporated similar measures of autonomy for ever-married women for the first time is instructive. Among the percentage of women who participated in each of four sets of household decisions, Kerala was ranked 10th among 25 States, trailing Punjab, Haryana, Gujarat, Goa, Himachal Pradesh and several north-eastern States (Kishor and Gupta, 2004).⁸ This was the case on most areas of household decision-making, even if only working women were considered (NFHS, 1998-99). Findings of this nature question the much-glorified straightforward relation between literacy and women's autonomy and raise the need to locate women's educational attainment and access to other resources within the extant patriarchal social structures, specifically the family (Jeffery and Basu, 1996; Heward and Bunwaree, 1999).

The question to ask seems to be: Where have women's 'achievements' been directed? A decomposition of the GDI is very revealing; high scores on education and health among 15 States of India (ranking Kerala first) mask women's poor employment profile.⁹ The State ranked 10th or 15th according to different measures of income shares based on gender work participation rates and wage rates (Seeta Prabhu et al, 1996). High rates of literacy and impressive levels of female education did not translate into rapid growth of paid employment of women nor into upward occupational mobility. Against this, the State is witnessing downtrends in women's property rights, rapid growth and spread of dowry and high levels of gender-based violence, particularly domestic violence, even as the levels of education continue to rise. Thus, new questions need to be raised about the conventional indicators of well being – education, health and employment – particularly the ways they combine to reflect extant gendered priorities. Also, there is the need to go

⁸ Decision-making on own health care, purchase of jewellery and other items, going to stay with parents/siblings and use of own earnings was included in the analysis.

⁹ Work participation, particularly access to earned incomes is an important aspect of empowerment though by itself it does not ensure control over earnings or women's ability to take 'self-interested' decisions.

beyond the conventional indicators of well being to hitherto less examined sites such as mental health, crime against women, political participation or property rights (Sonpar and Kapur, 2003; Eapen and Kodoth, 2003). In what follows, the influence of social reform is traced in fostering a new form of patriarchy in the nineteenth and early-mid twentieth century. Two areas where this new patriarchy is keenly at work are taken up for further analysis. a) In the limited extent and constraining dimensions of women's property rights in the State today, which hinge upon practices that regulate inter-generational transfers of property – prominently inheritance rights and dowry transfers. b) In the growing evidence of the serious dimensions that violence against women has attained in the State.

3.2 Social Reform, Gender and Family

Comprehensive social reform in the late nineteenth and early twentieth century was instrumental in thoroughly transforming institutions and practices, particularly marriage and family in Kerala. It has been suggested that the reformed institutions and practices were built upon entirely new forms of non-reciprocal relations of power between men and women (Devika, 2002). In fact, a wide array of processes (modern education and employment, modern law and judiciary, public debate, active mobilisation and campaign) and disparate agencies (the State, Christian missionaries, caste and religious reform organisations, the nationalist movement and the media) came together in advancing new norms of gender, sexuality and domestic economy. The matrilineal family was in the firing line of reform for the 'unusual' sexual and property practices that it sanctioned – prominently that husbands did not gain rights over women's property and sexuality. If the Nairs were matrilineal throughout Kerala, *Ezhavas*, *Tiyas*, Brahmins, *Pulayas*, Christians and Muslims practised matrilineal descent in specific regions.¹⁰ Crucially, matrilineal women had permanent rights to property and residence in their natal *taravads*. However, social reform identified patriliney as a key factor in human/individual enterprise, turning the moral criticism against matriliney into an economic rationale (Kodoth, 2004b). The matrilineal family (and more generally the joint family) was seen as flouting 'man's natural' instincts towards his wife and children. In the early twentieth century, a series of regional laws gave recognition to patrilineal inheritance among the matrilineal social groups, eventually abolishing matriliney in 1976. Across caste and

religious groups, however, social reform was instrumental in anchoring women's interests firmly to marriage within a small family that undermined their associations with their natal families. A gender-based separation of space between a man as the legal-economic protector of his wife and children, and his wife as responsible for their home, supportive of her husband but his legal dependent was at the core of the new family. The spectrum of social reformers who associated success in the economic sphere very generally with patrilineal institutions, included the patrilineal *Nambudiri* Brahmins, the Syrian Christians and the Mappilla Muslims. Boxes 7.5 and 7.6 reveal that the association between patriliney and individual initiative motivated reforms among the patrilineal groups as well.

If questions of marriage and property laws that dominated reform among the landed groups were not so important among the lowest castes, the same cannot be said of deeper institutional questions. Social reform movements among the lowest castes were centrally concerned with addressing caste indignity through education and agrarian struggle for better working conditions as was highlighted in Chapter 1. Nevertheless, gender questions entered into these concerns in central ways. For instance, the onus of community honour/dignity was made to rest heavily on women. And as among the upper castes, women's bodies became the sites of contestation and inscription of community identity,

Box 7.5: Patriliney and Human Enterprise: Reforming the Malayala Brahmins

Numerically very small, but dominant until the mid-nineteenth century, the *Nambudiris* followed primogeniture and allowed only the eldest son in a family to marry within the community. Younger sons established alliances with women of acceptable lower castes. Reformers struggled to establish the right of younger sons to marry within the caste underlining its importance to individual enterprise. Here too, women's interests were tied to marriage. The Kerala *Nambudiri* Act, 1958, provided that upon marriage women would cease to be members of the family they were born into. It restricted their claim in natal family property to a dowry and marriage expenses, which were not to exceed one-third of what would fall to her share upon partition (Sreedhara Varier, 1969, appendix p 5).

¹⁰ One account of the proportion of people who followed matriliney puts it at 51 per cent (see Jeffrey, 1992). However, this should be read with as much caution as accounts that suggest that it was but a small section of people, and mostly of the feudal elite, for matrilineal and patrilineal families existed in close social proximity in Kerala, among castes low and high and among different religious groups, influencing each other's practices and defining a very considerable historical and spatial diversity in practices (Kodoth, 2004b, 2002).

Box 7.6: Conserving Prosperity in the Patriline: Syrian Christian and Islamic Reforms

Unlike the *Nambudiris* or the Nairs, the Syrian Christians experienced a distinct rise in their economic fortunes since the mid-nineteenth century. Yet here too, property reform was motivated by the need to conserve economic prosperity by strengthening patriliney. The Travancore and Cochin Christian Succession laws (1916 and 1921, respectively) excluded daughters from the right to inherit property and restricted their claim to a dowry that was to be one-third (Cochin) and one-fourth the share of a son or Rs 5,000 whichever was less. Widows were restricted to limited interest that was to lapse upon remarriage (Kodoth, 2002b). The Mappilla *Marumakkatayam* Act 1939, provided that separate property of matrilineal Muslims in Malabar would devolve according to Islamic law and an amendment in 1963 extended the statute to all of Kerala and brought devolution of ancestral property as well under the Shariat (Derrett, 1999). These reforms were underpinned by a local-level campaign and undermined women's claims to property as the Shariat gave them less than their brothers were entitled to.

as evident for instance in the struggle to endow women with a 'respectable' dress code. Lower caste and agrarian struggles questioned the feudal rights that upper caste men had over lower caste women but well within a framework of patriarchal rights of lower caste men.

The Hindu Code of 1956, including separate laws on marriage and succession, was made applicable to all 'Hindus', though the *Nambudiris* and matrilineal groups from Kerala were exempted from certain clauses (Agarwal, 1994). Interestingly, the volume of reform activity in the legal sphere among the Hindus has stood in contrast to the reluctance of the post-independent State to reform Muslim or Christian personal laws. Despite repeated pleas for reform, the marriage and divorce laws of the Christians enacted in the nineteenth century and plagued by highly gender discriminatory clauses continue to stand (Agnes, 1999). The Supreme Court decision in 1986 that repealed these laws in favour of the more gender equitable Indian Succession Act 1925 was met with strong and organised resistance from the community and the Church. It is also instructive that

few women so far have been able to risk community displeasure and take advantage of it (Jaisingh, 1997).

3.3 Women's Property Rights

In order to develop a cogent account of gender disparity in property rights in contemporary Kerala, we need to think of ownership of and access to property in association with the practices that confer property right and the processes that transform property practices. Inheritance rights, dowry transfer, gifts and access to independent incomes are some avenues of acquiring property right. Clearly, customs that regulate inter-generational transfer of property are gender-differentiated. They are also closely associated with the organisation of marriage. Combined with pervasive female disadvantage in access to earned incomes through employment, they constrain women's ability to claim ownership and exercise control over property even in the face of equitable laws.

Let us consider land rights first. Kerala's admittedly far-reaching radical land reforms bypassed married women's independent rights to land through the family route (Saradamoni, 1980; Agarwal, 1994). Longer term expectations for women of indirect gains too have been belied, if we consider that women have gained much less than men or have been affected adversely in terms of access to non-farm employment or inter-generational transfers of land (Kodoth, 2004a). Significantly, a study in three urban and three rural settings in Thiruvananthapuram district found that only 21 per cent of women had title to land. However, 30 per cent of the women owned a house (Panda, 2003: 60). Analysis of data on operational holdings of men and women in Kerala in Table 7.12 indicates the extent to which they are recognised as managing or controlling land.¹¹ According to provisional data from the agricultural census of Kerala 1995-96, women hold less than a third of the number and area of operational holdings of men but also that as the size of holdings increase, women's share of the number of holdings and area declines. Disparity in women's landholding is more pronounced when we turn to the area of holdings. In the above 10 hectares category, women hold less than 10 per cent of total operational holdings and less than 5 per cent of the area of operational holdings. It may be inferred that there are strong restrictions on the recognition of (if not actual) control of land by women. Significantly, there was no substantial difference in gender

¹¹ The agricultural census takes the household, i.e., a commensal unit, as the unit of enumeration. As members of a single household are not recognised as joint holders, individual holdings stand in for households. Further operational holdings do not refer to title or ownership as they include owned and tenanted holdings.

Table 7.12: Percentage Distribution by Sex of Operational Holdings and Area Under Operational Holdings (in hectares) According to Size-class Groups, (1995-96)*

Size-class	Number of Operational Holdings				Area Under Operational Holdings			
	Male	Female	Institution	Class (%)*	Male	Female	Institution	Class (%)#
0.5 to 1.0	75.29	23.75	0.96	93.96	77.68	21.16	1.16	53.24
1.0 to 2.0	83.42	15.03	1.55	4.16	83.55	14.88	1.58	20.44
2.0 to 4.0	84.87	12.86	2.26	1.52	84.40	13.32	2.27	14.24
4.0 to 10	82.54	12.30	5.16	0.31	82.14	12.19	5.67	6.07
Above 10	66.61	8.61	24.78	0.05	44.84	3.62	51.54	6.00
Total	75.79	23.18	1.03	100.00	78.14	17.16	4.70	100.00

* This table is based on provisional data from the agricultural census of 1995-96.

* Percentage of the number of holdings in each size class to the total number of holdings.

Percentage of the area in each size class to the total area under operational holdings.

Source: Agricultural Census Division, Directorate of Economics and Statistics, Government of Kerala in Women in Kerala, 2001.

disparity in land holding among SC and ST households and all households (Government of Kerala, 2001).

On a rather contrary note, recent research has documented women's growing responsibility over management and cultivation of family land (as well as other family property). This trend has come in the context of diversification of household incomes and the shift of male members from agriculture to other occupations through migration or otherwise (Morrison, 1997; Arun, 1999). Yet this may not be visible in macro data, as women actively involved in agriculture and related activities such as animal husbandry continue to report/perceive themselves as housewives (Ibid; Narayana, 2002).

What factors constrain women's title, access to and control over property? If practices that regulate inter-generational transfer of property are clearly important, so also is women's poor occupational profile in the State, which restricts their ability to purchase property. Title over property need not be an adequate indicator of effective control and yet we know that patrilineal societies have systematically denied women substantial rights over immovable property. Kerala's is no longer an exception to this general situation. There have been definitive indications over the last quarter of the twentieth century that dowry is replacing inheritance rights as a mode of transfer of property to or on account of women.

Up to at least the mid-1970s, women continued to inherit some property among the matrilineal groups, though distinctions were drawn among different kinds of property (Gough, 1952; Fuller, 1976). A study of women's participation in the land market in a highland south Travancore village found that a much higher proportion of Nair women than men sold the land they inherited. 'Migration due to marriage' was the most important

reason for sale of land by Nair women (Varghese, 1988). Whether the proceeds are reinvested in women's names is anybody's guess. Among formerly matrilineal *Ezhavas* in central Travancore, land was sold and the cash equivalent given to the husband, a form of dowry that is not usually under the control of the girl. Osella and Osella point out that many women no longer have land to pass on to their daughters and mother-daughter inheritance is becoming rare. When they do inherit it is as widows, suggesting anchorage to marriage, dependence and vulnerability thereby. In a survey of widows in selected areas of north and south India, Chen (2000: 373) found that 67 per cent of the widows she surveyed in Kerala had inherited land from their husband as against only 27 per cent who had inherited land from their parents.

There is substantial evidence of the very general resort to dowry payments across a cross-section of social and economic groups. Dowry as a highly 'competitive' market practice, increasingly divested of previous customary regulations has been documented recently among the Christians (Visvanathan, 1999; Kurien, 1994). Among the matrilineal groups, over the past half century, there has been a very general shift to dowry marriages (Osella and Osella, 2000: 85; Puthenkalam, 1977; Lindberg, 2001; Uyl, 1995). More importantly, perhaps, the notion of dowry has gained widespread acceptance in the State, across social and economic groups (Eapen and Kodoth, 2003).

There has been a very general switch from dowries in land and gold in the decades following the agrarian reform to dowries in cash, gold and consumer durables today. Osella and Osella (2000: 106) note that some notional distinction was made between land and gold to remain in the bride's name, and cash and goods going to the husband and his family. In practice, however, most

women lost control over the entire dowry, which is used to support the needs of the husband's family. Several scholars have documented the steep rise in the levels of dowries among a range of social and occupational groups (Lindberg, 2001: 295-96; Uyl, 1995; Kodoth and Eapen, 2003; Kurien, 1994). Women's property rights hinge on a host of factors, which are weak or absent under a framework of patriarchal marriage. The resort to dowry, 'thinning' of women's inheritance over parental property and women's very low rates of participation in paid employment are conditions that foster dependence on men within a marital framework and pressure women to conform to patriarchal gender codes.

Box 7.7: Political Representation

Levels of representation of women from Kerala in the *Lok Sabha* have been consistently dismal. In the eight *Lok Sabhas* between 1957 and 1989, there was never more than one woman and on four occasions there were no women. In 1991, for the first time, we had two women. This went down to one woman in 1999 and we currently have two women. This compares poorly with several States that trail Kerala on indicators of education or health. Nor is the picture substantially different in the State assembly. The number of women representatives peaked in 1996 with 13 members. We currently have eight women, which is 5.7 per cent of total membership. The average proportion of women in the assembly since 1957 in Kerala is considerably lower (Government of Kerala, 2001).

This picture is true of women's representation in policy-making bodies in virtually all sectors of organised political activity in the State. We know, for instance, that women have for long dominated the teaching profession in Kerala. Yet, according to a study, until 1956 there were no women members in any committee of the teachers' organisations. In 1980, during the preparations for organising the Kerala Government Teachers Association, the district coordination committee had not a single woman teacher as its member. Today, though women's representation is ensured in committees, the study notes that they are not in a position to influence decisions (Sony Kamath cited in Mathew, 1992).

3.4 Crime against Women

Patriarchal structures are associated with systemic prevalence and legitimisation of violence against women. Women's views too are shaped within these structures. The NFHS-2 reveals that 69.4 per cent of women in India who had experienced violence at least once in their lifetime and 53.3 per cent of women who had never experienced violence justified wife beating on one or other grounds. It is striking that Kerala had a higher proportion of such women than all India in both categories – 70.2 per cent and 60.8 per cent, respectively. (Kishor and Gupta, 2004). By this yardstick, patriarchal conditioning is firmly grounded in Kerala. If patriarchy sanctions violence against women, it is also known that resistance to patriarchal norms is one of the key triggers of violence.

In this section, we have analysed data on Crime against Women (CAW) from the National Crime Records Bureau.¹² We have dealt with data at the State level between 1995-2000, using moving averages. The States have also been ranked based on the moving average for 1998-2000 and findings from primary studies have been drawn upon to substantiate findings from this data. The NCRB data on reported CAW is in six categories – rape, kidnapping and abduction, dowry deaths, cruelty by husband and relatives, molestation and sexual harassment. Dowry deaths and cruelty at home are strongly associated with the domestic context, as against rape, molestation and sexual harassment which involve different degrees of a genre of crime against women, not necessarily associated with the domestic. We have not commented on kidnapping and abduction, as it presents difficulties owing to the circumstances that motivate parents or guardians to file cases of abduction (Mukherjee et al, 2001).

Aggregate analysis shows that in the ascending order of total CAW, Kerala ranks 24th, i.e., if we organise the States into four groups based on ranks, Kerala is among states/UTs with higher rates of CAW. In two categories, molestation and cruelty at home, Kerala ranks 29th in the group, with the highest rates of CAW. Only in dowry deaths and kidnapping and abduction does Kerala rank among States with lower rates of crime (Appendix Table A7.4). The suspicion that better reporting of crime contributes to its

12 A combination of state level (1995-97) and district level (1996) analysis highlighted both the usefulness and limitations of the data (see Mukherjee et al, 2001). A major irritant was the possibility of under-reporting and associated distortion of the data. Despite this Mukherjee derived robust patterns from the data. The relevance of the data, despite suspicion of under reporting was demonstrated through the contiguity of districts recording the highest levels of crime where the highest level is surrounded by the next level. Also variation in crime against women rates across districts increased as we moved from districts with low rates of total crime to those with higher total crime rates producing a neat cone on the scatter diagram. If under reporting of crime against women was proportionately greater than other crime, it is more likely to create a positive skewness (Mukherjee et al, 2001: 4074).

Box 7.8: Purchasing 'Status': Marriage Expenses and Dowry

Marriage is a priority item of spending of remittances from the Gulf.¹³ Kurien (1994) found that dowry was a major head of expenditure in two of three villages studied in the context of migration-induced spending. In a Muslim village, where migrants were from the lower income groups, she finds that *"the value placed on the purity and seclusion of women manifested itself in several ways in the expenditure patterns of this area"*. This had led to a tremendous increase in dowry rates as well as the use of taxis considered the more appropriate mode of travel for women. In the second, an *Ezhava* dominated village, while dowry is not mentioned, the major heads of expenditure were life cycle rituals and festivals. *"Marriages were the biggest of such celebrations and migrants spent a good proportion of their Gulf money on the weddings of their sisters, daughters and close relatives"*. In a relatively affluent Christian village, the largest heads of expenditure were education (donations to professional colleges) and dowries. *"Status in this community accrued from having a large bank balance, professionally educated family members (the large dowries were often ways of securing such sons in law)..."*.

The almost excessive emphasis on marriage, its translation into a consumer practice that raises expectations of social mobility, has different implications for men and women. One of our respondents indicated the dimensions that 'masculinity' could take in this context. She was considered old at the time of her second marriage at 23 years to a Gulf migrant, who already had a wife and three children. The marriage was arranged at his behest, because he thought he could 'afford' it. He told her that, *"earlier, I never had money to buy even a beedi. But now I am in the Gulf and have got money. I can take care of two families"* (Eapen and Kodoth, 2003).

Table 7.13: Moving Average of Crime Against Women per Lakh of Population

	Rape	Kidnapping & Abduction	Dowry Deaths	Cruelty by Husband and Relatives	Molestation	Sexual Harassment
Kerala						
1996	1.33	0.47	0.10	3.73	3.77	0.10
1997	1.67	0.47	0.10	5.13	4.77	0.20
1998	1.70	0.43	0.10	6.60	5.23	0.23
1999	1.63	0.37	0.10	7.33	5.30	0.23
2000	1.60	0.33	0.10	7.77	5.47	0.23
All India						
1996	1.57	1.57	0.60	3.67	3.13	0.57
1997	1.57	1.63	0.63	3.97	3.17	0.67
1998	1.57	1.63	0.67	4.17	3.23	0.77
1999	1.57	1.60	0.70	4.43	3.27	0.93
2000	1.60	1.50	0.70	4.60	3.30	0.97

Source: NCRB: Crime in India, various issues.

rank is particularly strong when we consider Kerala, given the high literacy levels and gender parity in the conventional sense. We have attempted to work through this obvious constraint. One, reporting of crime is likely to be mediated by gender codes, which stigmatise women who have been raped or molested, but also by other factors, prominently the rigidity of the legal system and the intensity of crime. Two, unequal gender codes are not necessarily transformed

in more equitable directions by literacy or greater access to education, as already seen in the context of employment and property rights. Primary studies in a comparative frame shed crucial insight for our understanding of the data.

Between 1995-2000, the rates of cruelty at home, molestation and sexual harassment rose sharply in Kerala (Table 7.13). The increase in rate of sexual harassment

¹³ Two studies have been particularly insightful on this issue. Osella and Osella (1999) have focused on the *Ezhavas*, a backward caste, and their data is based on study of a village in the Kuttanad area of south Kerala. Kurien (1996) has studied three villages, a predominantly Muslim village in north Kerala, Christian in central Kerala and *Ezhava* in south Kerala.

was partly because it was initially almost nil. Reporting is a serious factor in the low levels of sexual harassment (for Kerala and India). It is significant that analysis of two high profile cases of sexual harassment recently revealed the strong disincentives (of time, resources, effort and legal procedure) attached to reporting sexual harassment (Devika and Kodoth, 2002). In contrast, rape and dowry death being more heinous are more likely to be reported. It is striking here that Bihar, which ranks 30 and 18 in dowry death and rape respectively, ranks much lower (in the group with low rates of crime) in all other categories. It may be reasonable to expect that States reporting high levels of dowry murder would have high rates of cruelty at home as well. In fact, the rate of cruelty at home is consistently higher than rate of dowry death for all States. Notably then, Bihar, UP, Delhi, and Punjab are in the highest group of States in dowry death but show significantly lower ranks for cruelty at home (see also Mukherjee, 2001).

Between 1995-2000, the rate of dowry deaths in Kerala remained steady at a level significantly lower than for India as a whole. It is well known that dowry deaths and related crime are concentrated in the north. Kerala was for long considered free of this crime (Menski, 1999) in association with its matrilineal traditions and customary regulation of dowry among patrilineal groups. However, dowry deaths being reported consistently in the State is an indication of significant shifts in marriage practices.

Kerala ranks in the highest group of States in cruelty at home and there is a concerted and sharp increase in rates of cruelty at home between 1995-2000. This is an area where we have primary studies, which corroborate the serious dimensions that this form of violence has attained in the State.¹⁴ Women in Thiruvananthapuram reported similar levels of physical violence as women in Vellore and Lucknow (ranging between 21 and 26 per cent) according to a study of domestic violence undertaken between 1997 and 1999 in seven cities of India (INCLEN/ICRW, 2000). The study also revealed that over two-thirds of the sample women in rural and a little lower in the urban non-slum area had experienced psychological violence, which was considerably higher than in the other sites. A more recent study of domestic violence in Thiruvananthapuram (rural and urban) found that overall 35.7 per cent of women reported experiencing at least one form of physical violence at least once in their married life.

At 64.9 per cent, the figure was considerably higher for psychological violence (Panda, 2003: 44).

The socio-economic correlates of domestic violence investigated by these studies are instructive. Taking all the sites together, the INCLEN study revealed that gender gap in education and employment was significant in explaining violence. Violence was more frequent when the woman respondent was more educated (>2 years) and had a better type of employment. Nevertheless, the unemployment status of the husband was significantly and positively associated with both measures of violence. These are indications of the importance of work status to male identity. Existing evidence for India and Kerala also points to the negative association between socio-economic status and domestic violence (INCLEN/ICRW, 2000; NFHS-2, 1998-99; Panda 2003). In particular, Panda (2003) found that education status of men and women was negatively associated with life time prevalence of violence and that women engaged in irregular/casual employment were more likely to experience violence while regular employment was likely to reduce violence (Ibid, 56). However, as INCLEN/ICRW (2000) point out, it is entirely open to interpretation whether women of higher socio-economic levels actually experience lower levels of violence or merely report it at lower levels. It is instructive that ownership of property (land and house) by women was found to reduce both physical and psychological violence against women (Panda, 2003: 66). Existing work converges on a set of reasons that are seen as inciting violence. The INCLEN study found male dissatisfaction with women over domestic responsibilities, including disobedience, infidelity and alcoholism, were key causes of violence. While these were important in Panda's study too, he also noted that 30 per cent of women who had arranged marriages cited dowry as a factor in violence (Ibid: 51). Clearly, these provide strong indications of patriarchal structures underlying violence against women, most clearly in the gendered expectations that they sustain.

District-wise information on crimes against women reveals that the incidence was high in Kozhikode and Wayanad, both districts figuring prominently in recent episodes of rape. Domestic violence is above the State average in a number of districts, particularly Kollam, Malappuram and Kozhikode. These are areas which need further enquiry.

¹⁴ Primary studies deal with lifetime prevalence, while crime statistics are based on reported violence from year to year. It is also important to note that primary surveys probe closely into respondents' experience of violence.

Table 7.14: Crime Against Women Reported in Kerala State During 2003 – Rates per Lakh Population

District	Rape	Molestation	Kidnapping	Sexual Harassment	Dowry Death	Cruelty by Husband and Relatives	Total
Thiruvananthapuram	1.39	10.08	0.62	0.28	0.28	9.71	26.28
Pattanamitta	1.06	7.63	0.00	0.00	0.16	9.42	19.89
Kollam	2.05	12.27	0.43	0.00	0.19	14.12	30.49
Alappuzha	0.47	5.89	0.57	0.09	0.14	8.45	15.96
Idukki	1.24	8.24	0.00	0.53	0.00	9.21	20.02
Kottayam	1.28	7.22	0.51	0.51	0.00	5.89	15.46
Ernakulam	1.07	3.52	0.26	0.00	0.06	2.97	12.59
Thrissur	0.97	5.28	0.24	0.34	0.10	7.53	22.35
Palakkad	1.80	5.35	0.04	0.15	0.11	8.18	17.54
Malappuram	1.16	1.57	0.11	0.06	0.06	12.67	22.67
Kozhikode	1.18	4.38	0.24	0.35	0.10	12.75	29.43
Wayanad	2.54	6.36	0.00	0.25	0.13	10.81	42.84
Kannur	0.54	2.69	0.08	0.12	0.00	7.21	16.33
Kasargod	1.25	5.90	0.33	0.25	0.00	5.48	24.35
Kerala	1.23	5.87	0.27	0.19	0.10	9.03	21.84

Source: State Crime Records Bureau.

4. Concluding Observations

As is often the case, some of the discouraging features of Kerala's socio-economic landscape today are a product of what one might call the 'excesses of success.' Chapter 7 deals with these issues, with specific reference to the problem of educated unemployment and aspects of female disadvantage, which are not commonly picked up by human development indicators. The chapter suggests that despite high unemployment levels, the desire for enhancing educational qualifications is strong, perhaps understandably so, because unemployment is a declining function of educational qualification beyond the secondary school level. The problem of educated unemployment is particularly stark among women: There are strong indications that education has combined with conservative gender norms leading to differentiation in male and female employment streams but also in defining much stronger employment preferences among women. Unemployment among the youth is also very high in Kerala. The absence of any significant rural-urban difference in Kerala's unemployment distribution suggests that unemployment in this State is probably more 'open' than 'disguised'. Insofar as the 'recognition' aspect of unemployment is concerned, it appears that a higher proportion of men than women find their jobs not commensurate with their qualifications: While this may be on account of the significant proportion of employed women who have regular employment, the influence of differences in women's expectations cannot be discounted.

Chapter 7 also explores the question of women's relative disadvantage in terms of property rights and violence. An uncritical appreciation of social reform in Kerala masks its formative influence in advancing gender as the basis of social difference, manifested starkly in the negotiation of new marriage and property laws/customs. These reforms and the consolidation of marriage as the dominant framework of women's property rights speak directly to women's contemporary disadvantage in property rights through the 'thinning' of parental inheritance and the growing importance of dowry and spousal inheritance. More direct violations of personal liberty are reflected in statistics on crimes against women: An analysis of National Crime Records Bureau data suggests that Kerala figures prominently in the prevalence of domestic cruelty. The picture might well survive even after adjusting for the possibility of better crime reporting (associated with higher levels of literacy). In sum, an examination of employment, unemployment, property rights and violence suggests that patriarchy has been reconstituted through social reform and has endured in and through social development in Kerala.

Having appraised various aspects of human development and growth in Kerala, and also subjected this experience to critical evaluation in terms of certain crucial areas of both promise-bearing and cautionary concern, one must now consider where and how Kerala might go in the time to come. This is the subject of enquiry in the following chapter.

Appendix

Table A7.1: Number of Women of Age 15 years and Above Usually Engaged in Household Duties (Principal Status) and also Participating in Specified Activities per 1000 Women (Age 15 Years and Above) Usually Engaged in Household Duties

S. No.	Specified Additional Activities	Kerala		All India	
		1999-2000		1999-2000	
		Rural	Urban	Rural	Urban
1.	Maintenance of kitchen garden, etc.	331	458	164	80
2.	Work in house hold poultry, etc.	639	377	543	219
3.	Free collection of fish, etc.	38	24	179	46
4.	Free collection of firewood, etc.	250	140	534	164
5.	Husking of paddy (own produce)	4	22	111	9
6.	Grinding foodgrain (own produce)	30	44	86	14
7.	Preparation of gur (own produce)	4	0	8	0
8.	Preservation of meat (own produce)	5	0	6	1
9.	Making basket, etc. (own produce)	10	0	41	15
10.	Husking of paddy (acquired)	51	80	61	93
11.	Grinding foodgrains (acquired)	397	447	89	149
12.	Preparation of gur (acquired)	46	82	36	81
13.	Preservation of meat, etc. (acquired)	140	152	42	92
14.	Making basket, etc. (acquired)	33	87	38	84
15.	Preparing cow dung cakes	0	0	119	206
16.	Sewing, tailoring, etc.	96	158	273	314
17.	Free tutoring of own/others' children	142	258	48	124
18.	Bringing water from outside hh. premises	242	145	585	343
19.	Bringing water from outside village	9	0	18	0
20.	Any of items 1,2,4,5, 8-12 & 15-19 & 22-26	905	885	969	788

Source: NSSO Report No.465: Participation of Indian Women in Household Work and Specified Activities, 1999-00.

Table A7.2: Industrial Distribution of Usual Principal and Subsidiary Status Workers – Kerala

	Male				Female			
	1993-94		1999-00		1993-94		1999-00	
	% Share	No. of Workers (000)	% Share	No. of Workers (000)	% Share	No. of Workers (000)	% Share	No. of Workers (000)
Agriculture								
Rural	53.2	3068	42.8	2676	63.0	1679	59.8	1698
Urban	22.3	478	7.4	164	33.3	270	14.6	124
Mining & Quarrying								
Rural	2.0	115	2.1	131	0.4	11	0.8	23
Urban	0.5	11	0.4	9	0.4	3	0.2	2
Manufacturing								
Rural	9.7	559	9.4	588	19.2	512	19.3	549
Urban	16.3	349	17.4	386	25.1	203	27.2	232
Electricity, Gas, Water								
Rural	0.4	23	0.3	19	0.1	3	0	0
Urban	0.6	13	0.6	13	0.6	5	0.2	2
Construction								
Rural	7.5	433	12.6	788	2.1	56	2.7	77
Urban	10.0	214	14.1	313	3.0	24	2.1	18
Trade & Hotel								
Rural	11.6	669	15.8	988	3.6	96	3.7	105
Urban	20.6	442	32.7	726	6.5	53	25.1	214
Transport								
Rural	5.8	334	9.0	563	0.4	11	0.2	6
Urban	10.4	223	11.5	255	1.0	8	1.8	15
Services								
Rural	10.0	577	8.1	506	11.1	296	13.6	386
Urban	19.4	416	15.8	351	30.0	243	28.8	245
Financial								
Rural	1.4	81	2.1	131	0.5	13	1.1	31
Urban	3.5	75	4.6	102	1.6	13	3.7	32
Public Administration, Social and Personal Services								
Rural	8.6	496	6.0	375	10.6	282	12.5	355
Urban	5.9	341	11.2	249	28.4	230	25.1	214

Source: 1987-88: *Sarvekshana*, September 1990; 1993-94: *Sarvekshana*, July-September 1996; 1999-00: "Employment and Unemployment Situation in India", 1999-2000, Report No. 458, NSS 55th Round, NSSO, Government of India, May 2001 *Sarvekshana*.

Table A7.3: Education Specific Work Participation Rates for Persons of Age 15 Years and Above

	Kerala				All India			
	Rural Male	Rural Female	Urban Male	Urban Female	Rural Male	Rural Female	Urban Male	Urban Female
1987-88								
Not Literate	76.9	45.9	71.9	30.3	91.1	91.1	52.6	29.2
Literate, up to Primary	85.1	46.2	82.4	24.1	89.0	80.0	39.1	17.5
Middle	72.3	31.7	73.2	22.4	73.9	73.9	28.6	11.3
Secondary	57.2	28.3	58.5	25.3	72.9	72.9	26.2	15.1
Graduate & Above	75.3	45.3	83.7	51.8	82.7	82.7	30.7	31.5
1993-94								
Not Literate	77.9	37.2	74.2	28.6	91.8	54.0	87.0	30.0
Literate, up to Primary	89.1	39.6	84.1	31.3	90.9	41.6	85.0	20.3
Middle	78.9	24.9	77.2	22.0	77.0	29.0	72.3	13.1
Secondary	63.6	27.4	66.6	20.4	72.8	25.8	67.7	13.4
Higher Secondary	44.2	17.7	52.9	27.5	68.6	23.4	60.7	14.7
Graduate & Above	73.1	38.2	82.2	40.2	83.4	36.6	81.8	13.1
1999-2000								
Not Literate	72.0	35.9	54.6	20.1	89.5	51.3	83.9	27.1
Literate, up to Primary	83.2	37.0	81.5	31.2	88.0	40.3	83.0	17.7
Middle	78.9	29.2	80.5	33.3	76.8	29.0	17.7	12.9
Secondary	68.7	24.4	68.2	27.3	73.7	25.7	66.8	12.4
Higher Secondary	56.7	19.6	48.8	21.6	71.3	70.6	60.8	12.4
Graduate & Above	81.5	32.1	86.9	36.8	83.6	31.0	80.6	27.3

Source: 1987-88: *Sarvekshana*, September 1990; 1993-94: *Sarvekshana*, July-September 1996; 1999-00: "Employment and Unemployment Situation in India", 1999-2000, Report No. 458, NSS 55th Round, NSSO, Government of India, May 2001 *Sarvekshana*.

Table A7.4: Ranks of States According to the Average Rate (1998-2000) of Crimes Committed Against Women (Per lakh Population)

States	Rape		Kidnapping & Abduction		Dowry Deaths		Cruelty by Husband and Relatives		Molestation		Sexual Harassment		Total Crime Against Women	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
A&N Islands	1.33	15	0.6	9	0	1	0.97	10	4.47	26	0.43	20	9.4	13
Andhra Pradesh	1.2	11	0.93	12	0.63	24	6.37	28	4.2	22	2.27	30	17	28
Arunachal Pradesh	3.03	29	3.43	27	0	1	0.63	8	4.7	27	0.13	11	11.97	17
Assam	2.83	28	4.33	28	0.17	14	3.27	22	2.77	17	0.07	7	13.63	21
Bihar	1.53	18	0.93	12	1.07	30	1.47	14	0.5	3	0.1	9	6.8	8
Chandigarh	1.9	22	4.53	29	0.53	23	2.67	17	2.67	14	1.07	25	15.67	25
D& N Haveli	2.37	27	1.57	22	0.37	19	2.17	16	2.3	13	0.17	13	9.27	12
Daman & Diu	1.2	11	1.17	17	0	1	1.47	14	0	1	0.27	18	4.57	5
Delhi	3.17	30	7.3	32	0.93	29	0.77	9	4.4	23	1.1	26	18.27	29
Goa	1.2	11	0.57	8	0.13	13	0.97	10	1.47	8	0.5	21	6.67	7
Gujarat	0.73	5	2.17	26	0.2	15	7.8	30	2.27	12	0.3	19	13.6	20
Haryana	1.97	23	1.63	23	1.47	32	6.2	27	3	19	1.87	29	16.2	26
Himachal Pradesh	1.87	21	1.5	20	0.1	10	4	25	4.4	23	0.23	15	12.17	18
Jammu & Kashmir	1.8	20	5.7	31	0.1	10	0.37	6	5.13	28	3.57	32	16.73	27
Karnataka	0.53	4	0.6	9	0.4	20	3.03	20	2.83	18	0.23	15	10.97	16
Kerala	1.63	19	0.37	3	0.1	10	7.33	29	5.3	29	0.23	15	15.2	24
Lakshadweep	0.47	3	0	1	0	1	0.5	7	0.5	3	0	1	1.47	1
Madhya Pradesh	4.5	31	1.17	17	0.8	26	3.77	24	10.1	32	0.97	24	21.5	31
Maharashtra	1.4	16	0.8	11	0.43	22	7.93	31	3.17	21	0.93	23	15.13	23
Manipur	0.43	2	1.9	25	0	1	0.1	4	0.57	6	0	1	3.03	4
Meghalaya	1.43	17	0.53	7	0	1	0	1	0.5	3	0.17	13	2.73	3
Mizoram	7.63	32	0.23	2	0	1	0	1	7.07	31	0	1	15.03	22
Nagaland	0.77	7	0.47	4	0.03	9	0	1	0.2	2	0	1	1.5	2
Orissa	2.1	25	1.23	19	0.73	25	3	19	4.43	25	0.5	21	12.97	19
Pondicherry	0.37	1	0.47	4	0.27	16	0.33	5	2.67	14	1.67	28	10.07	14
Punjab	1.17	10	1.13	16	0.83	28	2.67	17	0.93	7	0.07	7	7.03	9
Rajasthan	2.33	26	4.83	30	0.8	26	9.93	32	5.73	30	0.1	9	23.97	32
Sikkim	1.23	14	0.5	6	0	1	0.97	10	2.67	14	0.13	11	5.27	6
Tamil Nadu	0.73	5	1.5	20	0.3	17	1.03	13	3.07	20	2.8	31	20.4	30
Tripura	2.07	24	0.97	14	0.4	20	3.23	21	1.8	11	0	1	8.57	10
Uttar Pradesh	1.03	9	1.67	24	1.3	31	3.27	22	1.5	10	1.57	27	10.6	15
West Bengal	1	8	0.97	14	0.33	18	4.9	26	1.47	8	0.03	6	8.83	11
Total (All India)	1.57		1.6		0.7		4.43		3.27		0.93		13.8	

Source: Crime in India, various issues.

Looking Ahead

POSSIBILITIES AND STRATEGIES

1. Introduction

It should be fairly obvious by now that this Report has sought to go beyond giving a picture of the human development situation in Kerala by raising analytical and empirical issues that seek to link achievements in human development with broad-based growth. The core question, in short, has been: How to see the emerging scenario as one of the beginning of a 'virtuous cycle' and give it a conscious push.¹ The fact that the current state of development in Kerala is no longer one of a 'paradox of social development and economic backwardness' has to be noted as an important empirical reality that will hopefully set aside the debates on this theme and give rise to fresh attempts at understanding the nature and direction of human development and economic growth. This chapter, therefore, is an attempt at examining the possibilities of further development based on past achievements as well as failures. While doing so, it has become very evident that the external economic context is very different from the one during the first three-and-a-half decades since the formation of the State. Since the early 1990s, the national and international context is one of economic liberalisation, often referred to as globalisation. It will appear that Kerala seems to have not only faced up to the situation but even managed to benefit by it from an economic point of view but with an important exception – that of the persistence of unemployment among the educated. This chapter, therefore, outlines the contours of a broad strategy to convert the considerable achievements in the arena of human development to one of meaningful economic development.

¹ As highlighted earlier, human development theorists classify development experience as virtuous if human development and economic growth reinforce one with the other. See Ranis, Stewart and Ramirez (2000) for details, Ranis and Stewart (2001) for the theory and Pushpangadan (2003) for an application in the context of Kerala.

2. The Challenge of Broad-based Growth and Development

2.1 A Recap of Challenges

Our optimism regarding the current scenario has to be tempered by a few but socially highly sensitive problems that might have contributed to the absence of any marked enthusiasm (often bordering on excessively critical pessimism) within Kerala about its development experience. This Report, therefore, starts with reiterating these problems before discussing a possible strategy for a broad-based growth and development. These problems may be grouped into the following three categories.

2.1.1 High Unemployment

Despite a turnaround in growth and its sustenance at around 6 per cent over a fairly long period of time, we have seen the continuing high incidence of unemployment in whatever way it is measured. It is particularly important to note that this problem is not a generalised one. The problem is essentially one of 'educated unemployment'. In empirical terms, it means the high unemployment among those who have successfully completed at least 10 years of school education. The problem is much more acute among women than men within this group.

2.1.2 Residual Problem of Absolute Poverty and Deprivation

Kerala's record in absolute poverty as well as in basic social development indicators is characterised by an absence of, or low disparity in, spatial or gender differences. Spatial could mean either rural-urban or inter-district. However, the current incidence of absolute poverty, as per the official poverty line, is around 12 per cent of the population, that amounts to around four million people. This, of course, is based on household consumption expenditure data. There is an argument that poverty needs to be understood and assessed from a multi-dimensional point of view that incorporates other basic indicators of deprivation. This Report agrees with that view. In this sense, poverty in Kerala may be reckoned at around 25 to 30 per cent of the population although the same population may not be subjected to all identified deprivation measures. This

view is based on such recent statistics as 27 per cent of children found to be 'moderately undernourished', 23 per cent of women having 'any anaemia', 33 per cent of adults with 'chronic energy deficiency' and 30 per cent of households deprived of four basic necessities of well-being, such as housing quality, access to drinking water, good sanitation and electric connection (see Chapter 2 for details). The problem of poverty and deprivation has, as in the rest of India, a specific social dimension in that the most vulnerable are those belonging to the SC/ST and fishing communities.² It might be small consolation that the deprivation of these communities in Kerala is less pronounced than that of all India.³

2.1.3 Gender Justice

While Kerala's record in reducing and even eliminating gender disparity in many socio-economic indicators is commendable, the problem of gender justice continues to be intimately related to many issues in development. As discussed elsewhere, these are not only in the nature of unemployment and labour market discrimination but also in property rights, participation in public affairs and domestic violence.

2.1.4 Need for a Strategy

Based on this rather realistic assessment of its continuing problems, Kerala has to chalk out a strategy for a broad-based growth that is based on its high human development and the recent turnaround in economic growth. In fact, Kerala has reached a critical threshold in its quest for long-term economic development. In some sense, this threshold has been reached as a result of Kerala's spectacular achievements in some areas of human development. An additional but external factor that has contributed to the making of this threshold is the phenomenon of globalisation.

The current process of globalisation is characterised by the advent of new technologies and all-round innovation. The broad range of economic liberalisation that has enhanced the flow of goods and services has opened up considerable opportunities as well as challenges. At the international level, developing countries legitimately feel that the process of negotiations and eventual multilateral agreements are heavily loaded against their interests. The fight against such asymmetrical international economic

² Recent data cited in Chapter 4 reveals substantial improvement in human development indicators among fishing folk since the latter half of the 1980s.

³ See Kurien (2000); Pushpangadan and Murugan (2000).



issues will continue. At the same time, developing countries will have to strengthen their national space to confront globalisation in a way that will enhance their efforts at economic development. Given the earlier record of human development and the subsequent record of economic revival in Kerala, this Report feels that Kerala, despite being a regional economy, has certain strengths in confronting globalisation and align it with its goal of long-term economic development. But before discussing the possible strategy, it is important to underline some of the reasons underlying the failures detailed earlier.

Despite its relative success in the provisioning of social services, Kerala's record in creating and maintaining economic infrastructure has not been noteworthy to say the least. In particular, there has been a marked failure in sustaining public utilities and public-sector enterprises in an efficient way, leading to the drain of scarce public resources that could have been utilised for productive investment and/or enhancing the quality of public services. The failure is particularly marked in land and water management and development, and in the supply of adequate and quality power.

Kerala has been proactive in initiating and creating conditions for industrialisation and thereby increasing employment and income. However, for a variety of reasons, the share of modern industries in the State income continues to be small. A good part of the industrial base is still accounted for by agro-processing (as well as natural resource based), the foundations for which were laid during pre-Independence times. Given the low technological base of these industries and increasing competition from those located outside Kerala, they have remained vulnerable for quite some time.

New initiatives call for the deployment of more public resources apart from appropriate policy initiatives and institutional mechanisms. The fiscal capacity of the State has witnessed a secular decline since the early 1980s as a result of unsustainable revenue and fiscal deficits.

But in the context of the remarkably high levels of human development, especially in the creation of an educated labour force, reasonable degree of infrastructural development, a fairly long period of economic growth and, above all, a people with rising levels of expectations on economic development, Kerala needs to articulate a possible strategy for further development that will have to address the twin issues of efficiency with equity. This is all the more necessary given the context of globalisation. The fear among a good section of the population in Kerala is that the current process of globalisation may adversely affect the gains in social development because of a possible downsizing of the role of the State. The fear is about increasing competition for Kerala's products coupled with low levels of investment thus further constraining the options for economic development. So far, such fears have no empirical support. In fact, the Kerala economy has done well since the late 1980s, resulting in a secular increase in consumption and savings. But the fears could become a reality if Kerala does not prepare itself to confront globalisation in a creative way and turn its dependence on the rest of the world to one of interdependence. This calls for an active developmental state and not a passive one as advocated by the drivers of the current process of globalisation.

To advance the process of economic development in the context of globalisation, Kerala needs to focus on a shift from *quantity* to *quality*. This is because the quantitative achievements in many areas of development are impressive and the objective conditions have become ripe for a shift to quality that alone will give a further impetus to its quest for development. As will be explained later, this is as true in the area of employment as in elimination of absolute poverty. Given this paradigm shift in focus, this Report highlights three major areas. These are: (a) economy-wide technological change and innovation to enhance all round productivity, irrespective of sectors (agriculture/non-agriculture) or ownership (private/public); (b) enhancing the quality of infrastructure, and (c) enhancing the quality of governance.

Before elaborating on this line of argument, it is important to examine the nature of favourable objective conditions currently in Kerala.

First, let us take the case of population. Kerala, as we have seen in earlier chapters, will reach a stable population of around 35 million (currently 31.8 million) within the next 10 years or so. Kerala will have around 60-62 per cent of its population in the working age-group of 15 to 59 years, which can be translated into reduced dependency provided adequate employment is provided to all those who seek it. This share of working age population is similar to the countries in East and South East Asia with similar demographic behaviour. The task here is to focus on the *gainful employment and employability* of this population. The number of those employed in the formal sector is only around 10 per cent of the current work force (employed plus the unemployed) of around 12 million; around 1.84 million Keralites are working abroad, i.e. 15 per cent of Kerala's work force or one-and-a-half times of those working in the formal/organised sector.⁴ One of the main reasons for such large-scale migration is the absence of gainful employment within Kerala.

Second, those in the working age group in Kerala are qualitatively different from those even a couple of decades ago. Despite high unemployment, the trend is one of increasing the formal qualification of the potential job seekers. Our survey in the three districts of Thiruvananthapuram, Ernakulam and Kannur revealed that nearly half (46 per cent) of those in the working age group have at least an SSLC pass, the cumulative result of universalisation of education in Kerala. If we take the younger generation (15 to 35 years), 58 per cent has a qualification of SSLC or above. This share is bound to increase in the years to come.

The survey also revealed that there is not only a mismatch between qualification and work done but also a problem of matching qualifications with available job opportunities. Most unemployed are also *unemployable* in the sense they have only 10 or 12 years of general education. They have no particular skill or specialised knowledge. But their expectations are higher than those who seek manual work, with the result that fewer and fewer unemployed youth offer themselves for manual work involving drudgery and a low social status. In fact, there has been a steady flow of migrant workers into Kerala from other parts of the country to do the available manual work. This has led to a seemingly paradoxical situation of high unemployment and scarcity of local labour for unskilled manual work. From the demand side, there is need for technological change that creates demand for more skilled work. But there is also need to supply



a qualitatively better labour force. Therefore, advancing educational capabilities with a focus on quality is crucial to Kerala's further development. The younger generation of work-seekers are seeking 'jobs' and not mere 'work'.

Third, globalisation has opened up a wider set of opportunities, both within the country and outside. A large number of people from Kerala, with some minimum level of general education, positioned themselves to seek opportunities abroad much before the current process of globalisation. This is the international labour migration, mainly to Gulf countries, contributing to Kerala's economy in a significant way. As we mentioned in the earlier chapter, international remittance income into Kerala is estimated around 21-22 per cent of the State income (i.e. State domestic product). If one considers the multiplier effect of this remittance income as well as income from exports (of spices, cashew, coir, fish, educational/entertainment products, etc), it is quite possible to hazard an estimate of around or more than 40 per cent of Kerala's domestic income being generated directly or indirectly through its integration with the outside world. Clearly, Kerala is increasingly getting integrated into the global economic milieu.

Fourth, migration of labour from Kerala has contributed to another favourable factor. This refers to the exposure of close to 2.73 million people (emigrants and return emigrants as of 2004) to the outside world, mainly through their life and work in the Gulf countries. They have been exposed to interacting with people from different countries and cultures, working with modern technologies, organisation and management, and with all these, the possibility of enhancing one's standard of life. The new knowledge and skills acquired by them are now being put into practice

⁴ Kannan and Hari, op. cit.

in Kerala, both by themselves and others who have been associated with them as a matter of 'demonstration effect'. These are in small and medium industries, with modern technology and organisation, construction, trade, hotels and restaurants, banking, entertainment industry and so on. This perhaps explains the relatively high intensity of mobile phones and computers in Kerala. So is the case of carpenters, especially those who had some experience of migration, using modern electrical equipment in their work that helps reduce drudgery while enhancing the quality and productivity of work. This critical mass of emigrants has been instrumental in linking Kerala society with the rest of the world in a variety of ways. The recent CDS survey of households on migration (Zachariah et al 2003) revealed that one in four households in Kerala have a direct experience of international migration through one or more of its members.

Besides the above-mentioned favourable factors arising from social development, demographic transition and the impact of international migration, an important and compelling reason for overall technological change and innovation is the structural transformation of the Kerala economy. As seen in Chapter 4, at the end of the 20th century, the primary sector of the Kerala economy accounted for only a quarter of the State domestic income and around one-third of the employment. This means that three-fourths of income and two-thirds of employment is generated in the non-agricultural sectors of the economy. In fact, the service sector is the leading sector in Kerala with two-thirds of income and more than 40 per cent of employment. This is also the fastest growing sector. Such a process has raised the possibility of growth through 'servicisation' as opposed to 'industrialisation' since Kerala is a regional economy.^{5, 6} We shall return to this question later.

2.2 The Imperative for Technological Change and Innovation

To provide decent jobs, productivity levels will have to be enhanced. Given Kerala's higher 'social wage' (see Chapter 6), the lack of competitiveness in labour-intensive agriculture (e.g. rice cultivation) and many agro-processing industries is the result of the inability to raise labour productivity. Put in a different way, neighbouring States, with much lower level of wages,

are able to attract those industries where labour productivity levels are not much different. This calls for technological change and other forms of innovation that will enhance the value of the products. However, given the pressure of demand for employment, Kerala's political society turned its back on technological change for quite some time, thinking that all such changes result in job loss.

Indeed, there will be displacement of labour when machines are introduced. At the same time, technological change creates new jobs and new ways of doing things. Innovation on a wide front further contributes to employment creation and income generation. There is no doubt that people affected by job loss have to be taken care of by a variety of means, including social security and/or retraining. Their employment and employability becomes a reality only when there is the possibility of increasing investment in the economy.

There is some change in the society's mindset to technological change in favour of new activities rather than existing ones. This can result in a lopsided and inequitable situation. While information and communication technologies using computers



5 Recent analysis based on endogenously determined breaks provides conclusive evidence shows that source of growth in the 1990s is mainly from services. Pushpangadan and Parameswaran (2005).

6 See Subrahmanian (2003).

are welcomed, more simple and down-to-earth technological changes in agriculture and related activities are opposed. There is also a fairly long history of opposition to technological change in such industries as coir processing and manufacturing. This creates imbalance in income, both within and across sectors. Those who work with 'low' technological base earn a low income and those who work with advanced technological base gain high income. Sectoral imbalance in productivity leads to income imbalance among workers. Therefore, a piecemeal approach to technological change is not a good policy from a larger social point of view. It will only aggravate income inequality.

Opposing technological change has not resulted in job protection because industries and activities move away, as for instance in the case of coir processing/manufacturing and cashew processing and anything that involves employment of large numbers of workers. In agriculture, the result has been to move towards low labour absorbing crops. Thus, opposing technological change has neither served the immediate purpose of job protection nor the long-term objective of development. Given the fact that the younger generation in general, and the unemployed, in particular, are educated, they desire to work with technology than without it. It also contributes to their self-esteem providing better work conditions.

It should also be stressed that not all technological changes are labour displacing. Many technological changes such as hydrological (water control), biological (e.g. new and better seeds) and chemical (e.g. fertilisers and pesticides) are labour-augmenting.

Innovation is a much broader concept than technological change. It has to do with not only new techniques but also doing things differently, including making new products, finding new sources, organising in new ways, etc. Recent examples of successful innovations are in the areas of *ayurveda*, tourism, ICT-based activities, food processing, garments and a variety of small things.

2.3 Need for a Regional Development Strategy

At the outset, any strategy for further development in Kerala should acknowledge the fact that the State is a regional economy within a very large national economy. This has to be consciously factored, lest it

waste its energy and resources in producing things that other regions can do better. The national economy offers unrestricted access to the region's products. It can also source capital and raw materials as well as available technology. It also offers opportunity to tap the pool of talented skilled workers, professionals and other knowledge workers. The context of economic liberalisation, both nationally and internationally, has further opened up these opportunities; there is now much greater degree of mobility for capital and labour. This can work against the interest of a regional economy like Kerala, if conditions are not favourable for investment. This is exactly what has happened to Kerala, as witnessed by the flight of capital and labour from the State.

A regional development strategy in the context of economic liberalisation also calls for a different role of the State – not a reduced role but a *different* role. On the one hand, it has to enhance the capabilities of its people to face new challenges. Kerala has done this to some extent through its social development but now has to go further by enhancing the quality of such capabilities. The State also has to provide quality infrastructure and provide good governance to attract investment that will lead to the creation of desired employment.



2.4 Understanding the Distinction between Traded and Non-traded Sectors

In our search for a broad strategy for further economic development, it is important to understand the difference between what is called 'traded' (or sometimes tradeable) goods and services and 'non-traded' (or sometimes 'non-tradeable') goods and services. The former refers to those goods and services that can be easily produced elsewhere and hence procured from outside the region while the latter refers to those goods and services which cannot be easily competed away. Given the pace of technological change, this distinction is becoming increasingly blurred but it is quite relevant in a number of economic activities. In a context of increasing economic liberalisation, regions with higher competitive advantages tend to attract more and more of traded goods. For example, manufactured products without much local specificity move to those regions where these can be produced cost-effectively. In this sense, a whole range of manufacturing activities in Kerala find it difficult to sustain their operations. If they have to be retained, the answer lies in technological change and innovation. An analysis of the rates of return reveals that in a number of industries, Kerala compares poorly with its neighbouring States.⁷

An exception to this rule may be found in industries, which are performing reasonably well for some location-specific reasons or some other advantages. Take the case of *ayurveda* pharmaceutical and related health products industry. The growth of this industry can be attributed to the specific advantage of traditional knowledge and a brand value that has been acquired over time. Same is the case with the food processing industry for which consumer preference in the form of taste is an important determinant of demand. This industry has also done well as a result of a growing market abroad arising out of migration of people from the State. In this sense, some manufactured products may be treated as 'non-tradeables' if they have some specific advantage arising out of location, knowledge, etc.

Construction is an important non-traded activity in the secondary sector. This sector has also registered impressive growth during the last one-and-a-half decades. However, its linkages via demand for inputs are spread over both traded and non-traded sectors.

We have seen in the last chapter that the leading sector in the Kerala economy is the service sector, with the



highest rates of growth in many of its sub-sectors. Services in general come under the category of non-traded items because they all have some location specificity and hence cannot be easily transplanted elsewhere. This, in general, explains the reasons for the high growth of such services as transport, communications, banking and related financial sector activities, health, education and certainly tourism. To this, should be added the growth of what may be called 'creative industries', which usually caters to the demand for 'cultural' consumption. Examples are the fast-growing activities such as the visual media (TV channels, cinema, music industry, etc.), publishing activity, performing arts, festivals, etc.

Such an analytical distinction between traded and non-traded activities points to the need for special attention to the development of non-traded activities in Kerala, with emphasis on quality, product differentiation and development of 'niche' markets. If Kerala wants to take on the challenge of competition in a context of economic liberalisation, then it has to chalk out a long-term policy on technological change and innovation that will include competition in traded items.

2.5 'High Road' and 'Low Road' to Economic Development

In development economics literature, a distinction is often made between the 'high road' and the 'low road' to economic development based on the experience of several countries. The low road is referred to a path whereby accumulation takes place by labour-intensive industries taking advantage of the availability of a large

⁷ Background paper by K. Pushpangadan.

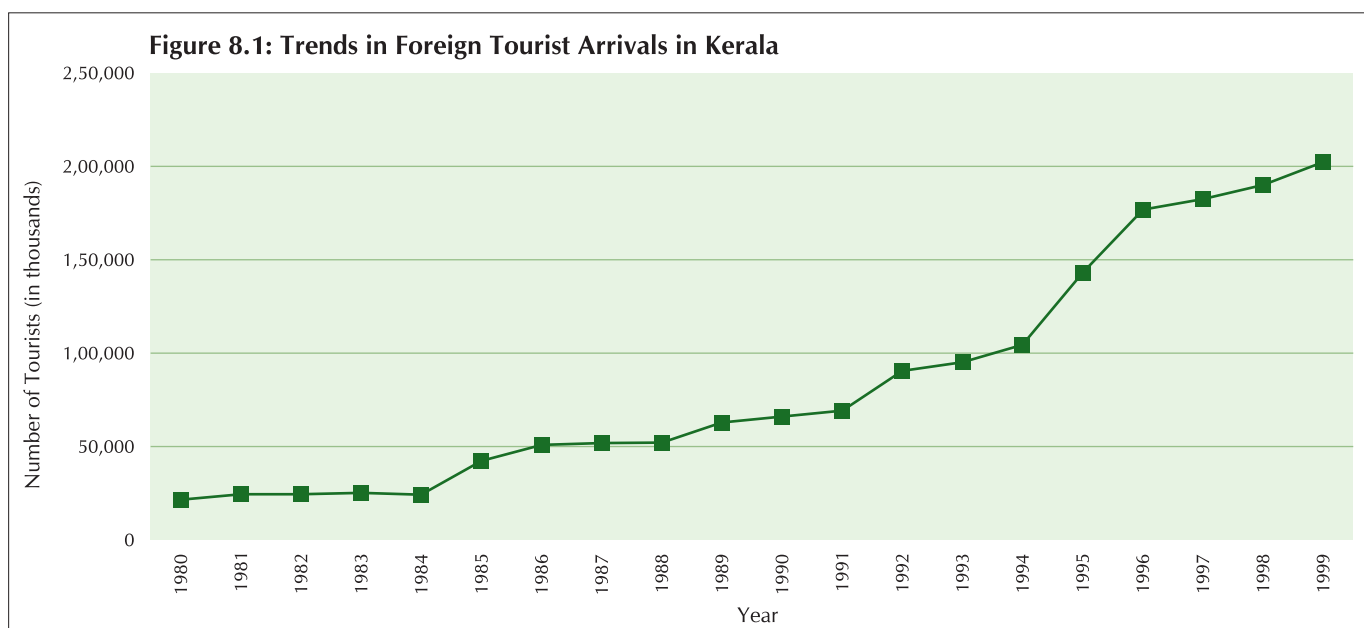
pool of labourers with low wages, engaging in extraction of natural resources, such as mining, quarrying, logging and such other activities which lead to depletion of natural resources as well as adverse environmental impacts. In a sense, the low road involves low technological base, high exploitation of labour and natural resources, scant regard for environmental and other adverse impacts and a hurry to make quick profits.

The 'high road', in contrast, calls for a longer horizon in investment, involves higher levels of skills and knowledge and hence higher wages, higher technological base, modern forms of organisation and professional management and has the capacity to tackle adverse environmental and related impacts. A modern pharmaceutical industry that calls for high knowledge-intensity, modern technology and all the other characteristics of the 'high road' may be cited as an example. Such a high road can be created for the development of *ayurveda*-based industries (pharmaceutical, nutraceutical, cosmetic, health care services, etc.) in Kerala. In fact, in each area of activity, whether they are production-based or service-based, one can distinguish between a 'high road' and a 'low road' to development, but how fast the transition can be made from a 'low road' to the 'high road' depends on the specific conditions existing in each activity.⁸

Kerala has now reached a threshold where it has become socially unacceptable to follow a 'low road' to economic development. Kerala's social development is such that a strategy involving absolute exploitation of labour is highly unlikely to succeed. Given the high density of population and its dispersed habitat pattern, ecological sensitivity due to the highly undulating terrain, and the high level of social consciousness about quality of life, it is equally difficult, if not impossible, to engage in extractive activities that harm the natural environment and thereby threaten quality of life. The controversies surrounding many such projects (mining of sand and minerals, projects involving deforestation, blocking of natural waterways, etc.) are manifestations of the objective conditions that are not suitable to following a 'low road' to economic development in Kerala.

There is an urgent need to debate the pros and cons of following the 'high' and 'low' roads to economic development in Kerala. In underlining the need to follow a 'high road', it is important to consider the following set of criteria while selecting and prioritising projects.

- Land-saving but skill- and/or knowledge-intensive (e.g. ICT-based activities).
- Products which are low in volume but high in value (e.g. pharmaceuticals).



Source: Economic Review, Kerala, various issues.

⁸ A historical example of the loss of opportunity in not consciously following a 'high road' is that of the coir processing and manufacturing industry. The earlier development of this industry was characterised by a 'low road' using cheap labour, environmentally polluting practices such as retting the husks in water bodies for long periods and manufacturing based on low technology and long hours of work. When these factors no longer offered comparative advantage, technological changes and innovation could have provided an outlet to graduate to a 'high road' to its development. When this was resisted by organised labour fearing loss of employment, the industry shifted to neighbouring States where an integrated coir processing and manufacturing industry has now emerged (as in Pollachi district in Tamil Nadu) using advanced technologies and largescale manufacturing.

- Low pollution or other negative externalities but using the ecological resources as a positive factor (e.g. eco-tourism, herbal medicines, high value agricultural products).
- Small and medium-sized activities except where there are distinct economies of scale (e.g. food-processing, fashion garments, precision engineering, etc.).
- Activities which can create a 'niche' market both within India and abroad.

In fact, objective conditions in Kerala are emerging in such a way that there are already visible signs of such a 'high road' approach to new economic activities. The two well-known examples are tourism and *ayurveda*. In the case of tourism, there has been a concerted policy initiative by the State in the 1980s, which later resulted in a symbiotic partnership between the public and private sectors. Tourism is focused on enhancing the value of Kerala's special characteristics such as the promotion of eco-tourism (based on its backwaters, lush green high

Table 8.1 Foreign Tourist Arrivals – District-wise

District	2002	2003	% Increase
Thiruvananthapuram	65,240	94,835	45.4
Kollam	8,478	8,620	1.7
Pathanamthitta	177	287	62.1
Alappuzha	17,261	26,157	51.5
Kottayam	20,488	21,897	6.9
Idukki	24,692	31,831	28.9
Ernakulam	87,357	99,987	14.5
Thrissur	1,979	2,667	34.8
Palakkad	611	661	8.2
Malappuram	1,048	1,402	33.8
Kozhikode	563	621	10.3
Wayanad	3,076	3,529	14.7
Kannur	1,014	1,438	41.8
Kasaragod	580	689	18.8
Kerala	2,32,564	2,94,621	26.7

Source: Economic Review, Kerala, various issues.

Box. 8.1: Tourism in Kerala

Kerala, a north-south linear State, has the unique advantage of being able to offer a wide variety of tourist attractions within a relatively small area of around 40,000 sq. km, thus qualifying for the best venue for 'multi-destination tourism'. Kerala's 600-km-long coastline offers some of the best beaches in India; the Western Ghat region in the east has some of the finest hill stations and wildlife sanctuaries, and many other locations have good potential for eco-tourism and the backwaters in the State also offer good potential for tourism development. Besides the opportunities offered by the geographic factors, the State also has enormous opportunities in the emerging health tourism sector.

Kerala emerged as an important tourism destination only during the late 1980s, but since then its market share is steadily increasing. The State is now considered as one of the important tourist destinations in the world. The World Travel and Tourism Council (WTTC) has accorded the status of 'partner State' to Kerala in recognition of its potential in the tourism sector. The State accounts for 11-12 per cent of international tourist arrivals of around 24 lakh in India in 2002 and domestic tourism was around 56 lakh in 2002. Being a service industry, tourism has higher potential to generate employment for local population. In 2003, this sector generated direct employment of 3.8 lakh and an estimated total employment (direct plus and indirect) of 7.8 lakh and they respectively account for 3 per cent and 6.2 per cent of total employment (Economic Review, 2003).

Healthy growth of this sector, however, depends on the proper development of what is called tourism infrastructure and provision of adequate skilled human resources. Tourism infrastructure includes mainly transport, accommodation, reception, catering and services like repairs, banks, currency exchange, medical services, communication, water supply and sewage facilities. This implies that the tourism sector has very strong linkages with other sectors and hence, can be relied upon to develop these sectors also. Skilled labour is required for the efficient development of the hospitality sector. Further, the State's ability to move to high value added products like *ayurvedic* and allopathic treatments crucially depends on the creation of adequately skilled human resources in this field.

Very crucially, the infrastructure facilities that urgently needed further improvement include quality of transport, electricity, water supply, sewage and waste management. An important area calling immediate attention is the assurance of quality of various tourism products like *ayurvedic* treatment and marketing of the tourism products of Kerala.

range areas, etc.), health tourism (based mainly on the tradition of *ayurveda* system of health care) and cultural tourism (based on its many performing arts and pilgrim centres). During the last decade, this 'non-traded' sector has been growing rapidly (Figure 8.1) though its regional spread is highly uneven (Table 8.1); in particular, the northern districts, comprising the erstwhile Malabar region, known for its scenic beauty is still relatively underdeveloped. While considerable potential exists for further development, which will be conditional on the qualitative improvement in such crucial infrastructure as roads, electricity and public sanitation, Kerala tourism has already carved out a niche for itself and has created a brand value (Box 8.1). Although precise estimates of employment are not available, the tourism industry has created considerable employment of a skill/knowledge intensive nature in such activities as travel agencies, hospitality management, construction activities relying on the revival of traditional Kerala architecture, performing arts, *ayurveda*-based activities and so on.

Another example of the 'high road' to economic development is *ayurveda*-based activity. Given the continuity and traditional popularity of this system of health care, Kerala has been able to successfully use this for the emerging market for health care, both within India and abroad. One of the first initiatives has been the factoring in of this system of health care in the tourism industry thus creating demand for specialised personnel. This, along with the increasing demand for treatment for certain types of diseases, has led to the growth of the *ayurveda* pharmaceutical as well as nutraceutical/cosmetic industry in Kerala (Box 8.2).



The emergence of a number of small and medium firms in a range of industries, mentioned in the earlier chapter, is also an answer to overcome the constraints in competing in what we have earlier referred to as 'traded' goods. In fact, a number of these firms are in food-processing, rubber-based, garments as well as in a range of products that are manufactured elsewhere. The success might be mainly due to their relatively high technological base, innovation, modern management, educated entrepreneurs as well as workers. However, this calls for detailed studies to understand their successes in the context of 'investment pessimism' in Kerala. When they reach a certain threshold of success, these entrepreneurs prefer to expand their scale of production outside Kerala.

The notion of 'investment pessimism' is probably due to the relatively less profitability of traded goods, actual or potential. Such 'investment pessimism' does not seem to hold much water when we see the rush of investments in such non-traded sectors as higher education, modern health care institutions, *ayurveda*-based activities and, of course, the tourism sector. Distinction between this notion of traded and non-traded goods is perhaps crucial to the understanding of investment and further economic development in Kerala. An approach based on economy-wide technological change and innovation might, in the view of this Report, overcome the constraints in investment in the traded sector.

2.6 Importance of Short-run and Long-run Strategies

Economic development is a long-term process. However, the ability to shorten the time-span depends on the removal of external as well as internal constraints. Often, poor countries have very little option to remove external constraints. This is all the more so in the context of a regional economy. Therefore, the focus often turns to what can be done to remove internal constraints and to confront the external ones in a creative way. In the case of Kerala, despite several limitations and poor initial conditions at the time of its formation in 1956, characterised by high population density, widespread poverty and unemployment, its development should be lauded for its remarkable progress in social development within a generation. This has now been followed by a modicum of progress in per capita income and related economic indicators. This 'success', remarkable in the Indian context, but limited in overall developmental

terms, should be reckoned as the 'new initial conditions' for further development. Apart from the two important distinctions made earlier, viz., traded and non-traded and high road vs low road to development, this Report underlines the need for another distinction in chalking out a strategy for development, i.e. short-run vs. long-run.

The concept of short-run in economics in general, and development economics in particular, need not necessarily follow a fixed time-horizon although it has a time dimension. Usually, it is referred to a time-horizon during which no significant additions to productive capacity is created. The idea is to initiate changes that will yield the

Box. 8.2: *Ayurvedic* Manufacturing Industry in Kerala

Ayurveda, the Indian system of health care has a fairly long history. Based on herbal medicine, this system has been gaining in popularity both within India and abroad. The increasing preference for health care based on natural products, the demand for rejuvenation therapy and Kerala's locational advantage in one of the mega bio diversity hotspots in the world are the major factors, which put Kerala-*Ayurveda* in the forefront. Since Kerala has preserved this system of healthcare over the ages and in the modern times with an institutional back up provided by the Government, Kerala *Ayurvedic* treatment is now poised for growth and development. This has provided a basis for the growth of the *Ayurvedic* Manufacturing Industry (AMI) in the State.

A recent study of the AMI in Kerala has brought to light a number of important features.⁹ Its output now accounts for more than 10 per cent of the all India *Ayurvedic* manufacturing output. In terms of the number of *Ayurvedic* manufacturing units, Kerala stands next to Uttar Pradesh. In Kerala, a large chunk of income is basically from *Ayurvedic* medicines, while in India, it is from the food supplements and the cosmeceuticals. As a percentage of the overall manufacturing output in Kerala, AMI contributes more than 2.5 per cent in terms of value addition, and its growth rate during the study period is quite promising as compared to overall manufacturing. Thus, the contribution of AMI in the overall industry is increasing and can grow if it is nurtured properly. Manufacturing units are mostly concentrated in the districts of Thrissur, Ernakulam and Kollam.

Major export destinations of *Ayurvedic* products from Kerala are UAE, UK, Malaysia, Russia, etc. The total export of *Ayurvedic* products stood at around Rs 15 crore, with major exporters being Kerala *Ayurvedic* Pharmaceutical Limited (KAPL) and Pankaja Kasthuri Herbals Limited (PKHL). Kerala also exported medicinal plants worth about Rs.5 crore. Most of the herbal exports from Kerala are now in the category of food supplements due to restrictions they face on the medicine export front. In fact, firms like Kottakkal *Arya Vaidyasala* (AVS) have not entered the product export market because of their policy decision to remain only in medicine. But, Pankaja Kasthuri has started exploring the product market with innovations and advertisement promotion in *Ayurvedic* combinations and cosmeceuticals. In Kerala, 65 firms have Good Manufacturing Practice certificate (GMP), which is a WHO advocated standardisation certificate. It is obvious that the product pattern is shifting in Kerala AMI too in favour of food supplements and cosmeceuticals. This reiterates the fact that necessary attention should be given to the curative side of *Ayurveda*. Many firms like AVS, Nagarjuna, PKHL and KAPL have research collaborations with many national institutes at different levels in areas like medicinal plant research, drug standardisation, product innovation, etc. But still expenditure on R&D is just around 2 per cent.

AMI has extensive linkages with medicinal plant industry (backward linkage) and tourism industry (forward linkage) in Kerala. Analysis shows that around 37 per cent of the income generated in AMI is going to the medicinal plant sector. As a matter of forward linkage, in Kerala, around 6 per cent of the tourists' visits are solely for *Ayurvedic* treatment. *Ayurvedic* tourism has emerged as a Unique Selling Proposition (USP) of Kerala. There are 34 *Ayurvedic* beach resorts, which have obtained either green leaf or olive leaf certificate, a mark of quality assessment by the Government of Kerala. In short, these three sectors, medicinal plant industry, AMI and the herbal tourism industry can work as propulsive sectors for the State economy through the multiplier effect and hence extended linkages.

Source: Harilal, M S (2004).

9 For details, see Harilal (2004).

maximum result within the given economic and social parameters. The long-run is usually referred to a time-horizon during which increases in productive capacity is taken into account through investment as well as changes in institutional variables. Such a distinction should not also be taken as a water-tight compartment. In reality, there are times and areas in which the short and the long-run intersect. However such a distinction is analytically useful in spelling out some policy options.

Let us take the short term first. As we have been emphasising, unemployment, mainly educated unemployment, is the biggest socio-economic problem in Kerala. As seen in Chapter 6, the quality of education is crucial if the State is to convert this pool of educated labour into one which could be employable both within and outside its labour market. International migration has provided a useful outlet for this pool of labour in Kerala. Until the late 1990s, two-thirds of emigrants had only less than 10 years of schooling. This was because there was a high demand for unskilled labour in such manual work as in construction, maintenance, trading, etc. With the end of the construction boom in Gulf countries, the demand pattern has been undergoing a significant change. The demand now is for skilled labour as well as those with specialised knowledge (Table 8.2). Estimates show a tremendous potential in areas where the State could take advantage as a matter of short run policy. The recent CDS migration survey (2003)¹⁰ has revealed that the proportion of graduates in the emigrant population has doubled between 1998 and 2003 (from 10 to 29 per cent) indicating this change in demand for labour. Training in English language and preparing for eligibility tests form part of this short-run strategy. This should go along with qualitative improvement in the relevant education.



¹⁰ See Zachariah and Rajan (2004).

Table 8.2: Number of US Jobs Moving Offshore

	2005	2010	2015
Life Science	3,700	14,000	37,000
Legal	14,000	35,000	75,000
Art, Design	6,000	14,000	30,000
Management	37,000	1,18,000	2,88,000
Business Operations	61,000	1,62,000	3,48,000
Computer	1,09,000	2,77,000	4,73,000
Architecture	32,000	83,000	1,84,000
Sales	29,000	97,000	2,27,000
Office Support	2,95,000	7,91,000	17,00,000
Total			33,00,000

Source: Paper Presented by Mr. G. Vijayaraghavan, in a Seminar on "Kerala Human Development Report," November 29, 2003.

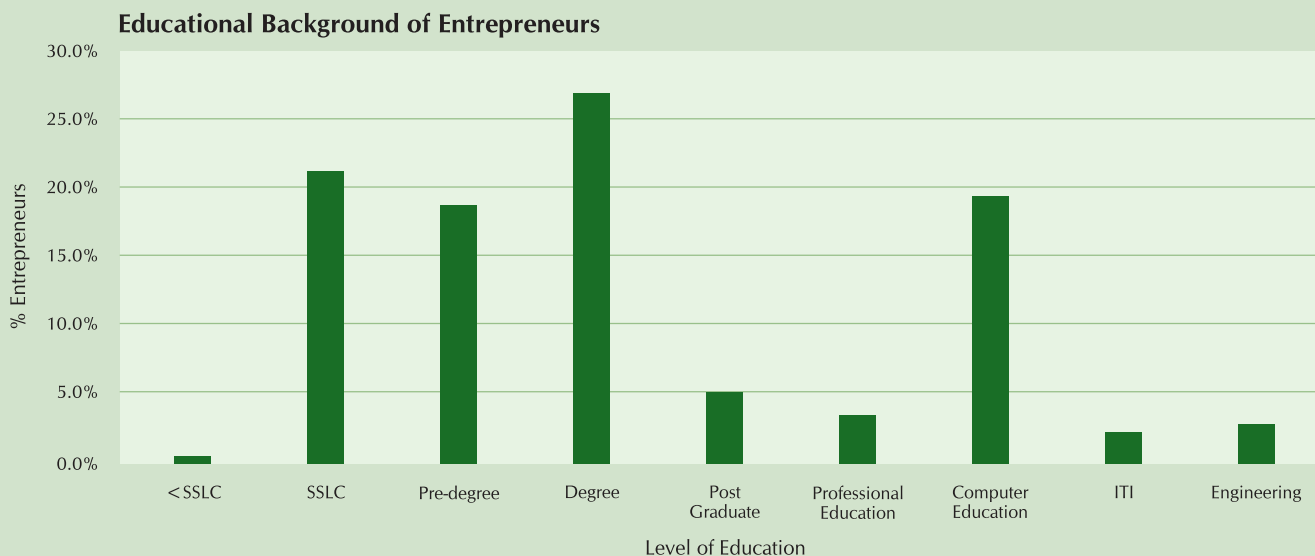
The areas in which Kerala can initiate policy and related changes without waiting for a long-run strategy are: Training of doctors and other health professionals, skilled personnel for the ICT-based activities, teachers, engineers and professionals for the visual and print media. Adequate capacity already exists in such areas. Let us elaborate on some of them in greater detail so that the transition from dependency can be reduced to one of income resource generation. We consider two areas for further elaboration. One is purely internal and the other external. Both are selected because there is no deficiency of demand.

As already mentioned, there is a large segment of the educated unemployed who have only 10 to 12 years of schooling without any specialised skill and/or knowledge. Their ability to acquire further educational capabilities is limited given their socio-economic background. It, therefore, becomes imperative to create employment opportunities for such a large pool of labour.

Given their general educational background, their learning curve is likely to be short when they are trained for a whole range of services based on ICT. One of the areas providing useful employment – for the beneficiaries as well as the providers – is e-governance and e-training. We have already mentioned the Akshaya Model of e-literacy for the population (Box 8.3) and the e-learning programme in the school system (called IT@School). The e-governance programme has seen some welcome, and often innovative, initiatives in Kerala. These are the FRIENDS programme for selected public service delivery, computerisation and e-linking of local self-Governments and computerisation of selected Government departments and/or services such as the treasury.

Box 8.3: Employment Generation in Information Communication Technology: Replicating Akshaya Model

To ease educated unemployment in the State, information communication technology (ICT) can play a prominent role as demonstrated by *Akshaya* (perpetuating prosperity) project in Malappuram district. The project's main concern is to provide infrastructure in ICT, a necessary but not sufficient condition for e-growth based development strategy, with public-private partnership. To begin with, the project has created 617 e-centres (*Akshayas*), one in every two wards of local bodies (*panchayat/municipality*) generating direct employment for about 3,085 persons (five persons per centre). The educational background of the 589 entrepreneurs is given below.



Source: <http://www.akshaya.net/akshaya/centrestat/edu.asp>

Its replicability in the remaining districts in the state in the next three years would generate about 50,000 employment opportunities and direct investment of Rs. 500 crore. A major component of the expenditure would be on about 40,000 computers and related peripherals and software to carry out various ICT based services of the centres (GOK, 2004). To keep the multiplier effect locally, computers should be purchased from small vendors and assemblers estimated to be 4,000 in the state. Such a policy will provide stable demand for the services of small vendors/units in the maintenance and repair of the durable ICT hardware and software.

The major role of the Government is to convert the ICT infrastructure in the region to sustainable growth by creating stable demand for the services provided by the *Akshaya* centres. This involves, among other things, a high level managerial and technical committee sponsored by the State to link e-centres to the newly emerging areas of ICT services particularly in e-education, e-health, e-tourism and e-governance.

One of the major problems of some of these initiatives is the long gestation period involved in completing a given project. For example, the computerisation of treasury operations, started in 1991, took 13 years to complete its first phase. The programme for computerisation and e-linking of local self-governments, started in 1996, is still in its infancy, with less than 1 per cent of local self-governments able to take advantage of the programme. The e-learning at the school was started a year ago but with extremely minimal infrastructural facilities (e.g. two computers per school) thus spreading scarce resources too thinly. A phased approach by covering a certain percentage of

schools in each phase would have helped in ensuring quality of such education as well as allow room for 'learning by doing' for further improvement of the programme.

The second area is training for nursing, demand for which appears to be very high. The President of India, Dr A. P. J. Abdul Kalam, has already mentioned in his Vision Plan for the State the need for training nurses to meet the already existing demand for about 50,000 nurses in the rest of India. Its potential as foreign exchange earner is very high (Box 8.4).

Box 8.4: Enhancing Educational Capabilities: The Case of Nursing

The likely demand for nurses in UK, US and Japan is about 1000,000 in the next five to ten years. The export earnings of such services are illustrated below in the case of the US.

Annual average salary of a qualified nurse (US dollar)	50,000*
Total number of nurses who qualify IELTS and CGFNS (say 10 % of our annual intake 20,000)	2,000
Value of services exported (in Indian rupees)	500,00,00,000
Value of services as a % total exports of Kerala in 2002-03	33.3

In order to meet the competition, we may undertake speciality nursing training in psychiatry, surgical intensive care, paediatric, geriatric and cancer care. Such a strategy has an additional advantage in that its impact is mainly among lower middle class households and therefore remittances to the State will be much higher than that of other professionals such as doctors or engineers. This requires the need for quality in nursing education and in communication skills. The investment requirement will be very marginal in this case.

Source: Various Newspaper Reports.

* This figure relates to more senior personnel. The salary ranges between US\$25000-50000 per annum.

2.7 Some Issues in a Long-run Strategy

One of the major tasks is to identify activities that have the maximum linkages, either backward or forward or both. In other words, investment decisions should be aimed at creating maximum interdependence among the sectors. Hirschman (1958) recommends the strategy 'on calling forth and enlisting for development purposes resources and abilities that are hidden, scattered, or badly utilised' for the process of industrialisation.¹¹ This view calls forth 'various inducing and mobilising mechanisms'.¹² The empirical evidence on the interdependence of sectors in Kerala is very weak.¹³ Therefore, our long-run strategy is to create linkages among the sectors.

It goes without saying that such critical infrastructure as power and transport do have a number of backward and forward linkages. As a precondition for further economic development, it is not necessary to repeat their importance, especially in terms of quality of services, in a long-run strategy. The issues relating to these critical infrastructure are dealt with in Chapter 5. Some of the activities that fall outside the infrastructure with a high linkage effect are mentioned here for illustration. These are (a) ICT, (b) tourism, (c) *ayurveda* and (d) selected manufacturing products.

The ICT industry, either hardware or software production, is currently a very small segment of Kerala economy although the market for its products and services is relatively large and growing as evidenced by the rate of computer penetration and use of such devices as mobile phones (Box 8.5). The State Government has a policy on IT and a number of related programmes. This includes setting up of IT parks for attracting ICT-based companies, e-governance projects for the introduction of ICT-based public services and, as mentioned earlier, educational programmes.

In the case of tourism, forward linkages are spread across the several sub-sectors, such as transport, hotels and restaurants, telecommunication, entertainment and so on. In the Kerala context, a conscious attempt has been made, with reasonable success, to factor in health care based on *ayurveda*, natural resources, taking advantages of the ecological endowments, traditional architectures and such cultural resources as performing arts, which has generated substantial linkages. There is considerable scope for further development; it is non-tradeable and subject to less competition. Health care as part of tourism has differentiated the product and linked it with traditional systems. Investment in such an area will generate demand for trained yoga teachers and physiotherapists in the indigenous medical system. This will also increase the demand for herbal and medicinal plants. If this can be

¹¹ See Hirschman (1958: 5).

¹² Ibid.

¹³ Detailed analysis of the linkages using Granger Causality test shows that there is very little interdependence among the sectors. See Pushpangadan (2002) for details.

locally produced, the multiplier effect of expenditure is high. In all probability, the strategy can benefit a whole range of people, beginning from cultivators and collectors of medicinal plants, manufacturers of medicines and related products, traditional and modern professionals, skilled para-health care workers, educational institutions and so on. Hence, a strategy based on differentiated and quality product in tourism can create a whole range of linkage effects in the Kerala economy.

The above brings out the linkages provided by the economic activities based on *ayurveda* system of health care. The existence of a traditional knowledge-base sustained by Government policy in maintaining a number of indigenous health/educational institutions has quickly taken care of the supply of manpower in this growing area

of activity. The continuing growth has also opened up new training and research institutions. Here again, public policy has to focus on the quality of training and the promotion of research and development activities to cater to the demand for quality services. Similarly, a tradition-oriented and small-scale *ayurveda* pharmaceutical industry has also begun to take roots and grow over the last decade or so, creating additional employment opportunities with its own linkages.

Manufacturing activities are mostly in the traded sector and as such we have seen that Kerala's performance here has not been impressive, to say the least. This includes those manufacturing activities for which raw materials are available within Kerala. What this suggests is the comparative high cost of manufacturing despite some advantages in the

Box 8.5: ICT and ITES Industry: Need for a Long Run Strategy

Kerala is a region with relative abundance of educated and technically qualified personnel, highest telephone density, 100 per cent digital connectivity, high PC penetration, making the State a fine place for the growth of ICT and ITES industries. But unfortunately the performance of the State is not up to expectations. The available data show that the level of IT activity in the State is extremely low, the region contributes only less than 1 per cent of the overall software exports from the country. There are not more than 100 professionally managed software companies in Kerala concentrated in Thiruvananthapuram and Kochi. There are around 7,300 firms in Kerala in IT and ITES industries taken together with an overall annual turn over of Rs.1,185 crore and direct employment of more than 40,000 people. Hardware assemblers and vendors in the State occupy a major space in Kerala's IT industry and employ close to 34,000 people. Domestic hardware turnover for 2003-04 was Rs.400 crore and exports of hardware was to the tune of Rs.180 crore.

A major problem with regard to the software exports from the State is the absence of major Indian and multinational firms, which is slowly being resolved with a potential entry of major players in the field. Another problem faced by the industry is the shortage of highly skilled and adequately trained manpower, even though the State is having enough educated manpower. The State needs to facilitate the creation of an adequate pool of trained human resources for the ITES industry in particular. The language and communication skills and other soft skills essential for the ITES industry need to be imparted. There should be more interaction between industry, academia and the State, and manpower should be planned according to the needs of the industry. The State has a disadvantage in terms of the non-availability of metropolitan social infrastructure, which is critical for the industry to retain its human resources. The State also lacks associated infrastructure, including convenient and frequent national flight connectivity (it has more international connectivity through the Gulf), to centres of technical and management excellence, etc, which are considered vital for the industry. Attempts should be made to develop the Cochin Special Economic Zone as a hub for assembling the widest range of electronic hardware items for national and international markets and a major centre for ITES and business process outsourcing (BPO). Kochi has the advantage of having international bandwidth availability of SEA-MEWE3 and SAFE and is a bandwidth surplus city in India. The opportunities for Kerala IT and ITES industry lie in generating a goodwill for the State as an investor friendly one and also generating adequate demand within the State itself. The potential for introducing e-governance in a wide range of public services as well as internal functioning of the Government is immense. Similarly, in order to reap the full potential of ICT and ITES industry, the State needs to adopt a long run strategy focusing on facilitation policy, improving the quality of physical infrastructure, qualitative improvement in educational capabilities and enterprise promotion.

availability of raw material. However, such a situation can be overcome to a limited extent, if the areas of comparative disadvantage are located and compensating measures are thought through. Wage cost is often mentioned as a source of comparative disadvantage. Studies show that wage costs (in terms of product wage i.e. wages paid as a share of value added per worker) are not higher in Kerala in the organised manufacturing sector. It is indeed true that wage costs are comparatively higher in the small-scale and the informal service sector such as handling materials. One generalised solution to this problem is the need to introduce technological changes and innovation in such areas as production and marketing. This can be particularly relevant in locally available raw material-based industries. Examples of this are rubber, wood and coconut-based industries.



There are a number of small firms as well as a small number of clusters around rubber-based activities (mainly footwear), but the scope for the manufacture of a number of products are reported to be quite considerable. These are in such products as special grades of latex concentrates, rubber compounds (master batches), block rubber or technically specified rubber, gloves and condoms, etc. In fact, it has been reported that there are over 35,000 different products made out of rubber and most of them can be grouped as non-tyre products.

The wood-based industry, again dominated by firms in the unorganised sector, is another one with considerable potential for development. The high rate of growth of construction activity, especially buildings, has given rise to a high growth in the consumption of wood products. Kerala consumes 2.1 lakh cubic metres of imported hard wood that comes to around 10 per cent of the country's import. In addition, there is a rubber-wood based industry in Kerala with an annual supply of 6.75 lakh rubber timber (i.e. 35 per cent of the supply of stem wood). More than half of this is currently used for packaging and the rest for plywood and other uses. There is considerable scope for manufacturing high-value products such as furniture that calls for modern processing, technology and organisation of production. A cooperative in Kerala (Rubco) has already successfully entered this market and enjoys demand both within and outside Kerala. The use of coconut wood is perhaps the least of all wood available in Kerala. Given its sharp and strong fibres, it is not amenable to processing in

Table 8.3: Industrial Parks in the Making

S. No.	District/Location	Selected Industries
1	Thiruvananthapuram	Wood-based, printing, silk cloth, reed-based products and handicrafts
2	Kollam	Food processing, wood-based
3	Pathanamthitta	General engineering, food processing
4	Alappuzha	Bronze and stone vessels
5	Kottayam	Food processing, leather, rubber-based, readymade garments
6	Idukki	Garments, limegrass oil, bamboo-based
7	Ernakulam	Food processing, rice mills, wood and plywood, rubber, plastics, electrical and electronics, printing
8	Thrissur	Diamond polishing, re-threading machines, tiles, pottery, food-based and notebooks.
9	Palakkad	Agricultural implements, bronze vessels, bamboo-based, food processing.
10	Malappuram	Garments, wood-based, rubber-based, food processing, and general engineering
11	Kozhikode	PVC footwear, jewellery, and food processing
12	Wayanad	Food processing, garments, bamboo-based
13	Kannur	Handlooms and garments, coir mattress, printing and plywood
14	Kasaragod	Pottery, mats and related products



the traditional low technology way. However, modern methods of processing have demonstrated the feasibility of using this wood for a variety of construction purposes as well as in furniture.

Although Kerala is a land of coconuts, the use of this as raw material is limited to a few activities such as extraction of oil and animal feed. A few modern units have come to produce a variety of other products such as activated carbon (from the coconut shell), coconut milk and powder, concentrated coconut water, vinegar and so on. A number of products can be made out of coconut. These avenues call for specialised knowledge, technology and assessment of market demand, etc.

Another area that can be exploited is the manufacture of consumables which can be produced on a small scale for the automotive parts and accessories, linked to the fast(est) growing transport sector and the heavy density of vehicles on Kerala roads. It may be noted that parts and accessories worth Rs. 2,000 crore were needed for vehicles in the State in 2003-04. If the Government promotes rural production of such parts, with the help of the locally available unemployed labour force, its likely impact on the educated unemployed is substantial. The challenges are (1) the selection of parts and accessories from a list of about 90 items for local production, (2) marketing, and (3) public R&D expenditure for the innovations in processes and organisational set-up at the household level, facilitating female participation and the spread of rural industries.

All these call for pro-active policies and initiatives. A part of it will have to come from the Government, especially in the collection and dissemination of information, availability of infrastructure and policy framework. A welcome initiative in this direction is the initiation of sector studies, which are general and preliminary in nature at the moment. More specialised studies will have to be undertaken on the basis of identification of priority areas. Another parallel initiative is the setting up of industrial parks providing land and other common facility. This can overcome the limitations of quick availability of land and other complementary factors as power. Table 8.3 shows that 14 industrial parks have been planned and many of them are in varying states of progress. Apart from land and power, many common facilities are planned to be provided that will include common testing facility, waste treatment facility, packaging units, and research and development centres. It appears that the need for introducing modern technology, identifying niche markets, and standardisation and focus on high quality are being emphasised in the development of these industrial parks. It is important to emphasise here the need to ensure training of workers and professional employees to impart specialised skills and knowledge even if they have acquired formal qualifications.

3. Concluding Observations

This chapter examined the possibilities for a qualitative transformation of Kerala's development experience that, in our opinion, will not only address some of the pressing and persisting problems (such as educated unemployment) but also go a long way in strengthening the potential linkages between human development and economic growth. In an earlier chapter, the need for a qualitative improvement of educational capabilities has been discussed, which should give a further impetus to the possibilities discussed here. The emphasis on education is to highlight its foundational nature in which there is need for concerted public action. But the problem of moving from *quantity* to *quality* is a generic one that should encompass a wider canvas of economic variables and hence the emphasis on all-round technological change. The social terrain in Kerala is such that no meaningful and gainful employment will be created for the vast army of educated labour force without a system-wide emphasis on technological change. In such a scenario, it is important to keep in mind, as discussed in this chapter, the limitations of a regional economy. This has led us to make a distinction between 'traded' and 'non-traded' sectors/activities where the former is subject to competition. Given the rapid growth of the



'non-traded' sectors and activities, there is scope for chalking out a strategy for growth of this sector. However, successful technological change along with innovation can address the problems of the 'traded' sector in terms of competition. The ultimate test is one of increasing labour productivity. It is within this strategic understanding that this Report has discussed, for purposes of illustration, the

potentialities of *ayurveda*-based activities, tourism, IT as well as the need for developing the small and medium manufacturing activities through creation of common facilities in the form of industrial parks. This is not to undermine the significance of interventions needed on the agricultural front, through a similar application of technology and policy planning.

Given these possibilities, policy-makers need to understand the difference between the 'high' road and the 'low' road to development, the former warranting a long-term perspective with emphasis on enhancing productive capacity as well as human development. As in the case of technological change, so in the need for a 'high' road to development because of the social transformation and the concomitant expectations on the nature and quality of life. This is to be reckoned, as a positive factor in Kerala's quest for further development. At a more fundamental level, the burden of advocating a broad-based strategy for further development impinges on the quality of education, infrastructure and issues of governance. These are fairly formidable challenges warranting concerted public policy and public action, if need be. We turn now to a discussion on decentralised governance and human development.

Decentralised Governance and Human Development

THE KERALA EXPERIENCE

1. Introduction

Local bodies in Kerala,¹ though extant for a long period, had very limited powers as self-governing local development institutions and were primarily conduits for schemes designed and funded by State/Central ministries. With the 73rd and 74th Constitutional Amendments in 1993, Kerala embarked on the task of inducting the *Panchayati Raj* institutions into the governance structures in the state. True to the history of public action in Kerala, the agenda of decentralisation has been so integrated into the public discourse on development that it too, appears to have become institutionalised. And this has ensured continuous commitment to decentralisation by successive Governments.

It is generally recognised that decentralisation, as implemented in Kerala, has not only enhanced her capability vector but also had considerable impact on quality, efficacy and inclusiveness of that development.² The local bodies are charged with a number of developmental functions and taken together they represent the ingredients for enhancing basic human development. These are individual/household benefit programmes such as housing, distribution of income earning assets as well as those that enhance the supply of public and collective goods such as roads, schools and public health care centres. However, that problems of transparency and accountability, poor vertical integration of local level plans, under-utilisation of funds and capacity enhancement of functionaries remain, cannot also be denied. For instance, while on the one hand it has opened the public sphere for the hitherto socially marginalised groups such as the Scheduled Castes/Scheduled Tribes and the politically excluded women in proportions never seen before, transformatory outcomes for such groups is still elusive.

¹ The State has at present 991 *Grama Panchayats*, 152 *Block Panchayats*, 14 *District Panchayats*, 53 *Municipalities* and 5 *Corporations* (situation at the time of the 2000 elections to local bodies). In order to make the administration of the *panchayats* efficient, large sized *panchayats* having large populations were divided and 20 new *grama panchayats* were formed. These *panchayats* came into existence from October 2000 and 11 *grama panchayats* were delinked.

² See for details Chaudhuri et al, 2004.

2. Governance, Public Action and Development

2.1 Redefining Public Action

The remarkable performance of Kerala in enhancing the vector of human capabilities owes, as we know, very much to public action that has its historical antecedents. It is in the sense of popular demand and public provision that we define 'public action'. In the human rights perspective,³ the demand side represents the claim of the potential right-holder (that is, the current beneficiary) along with the significance of the necessity and urgency that this claim be fulfilled. The supply side, on the other hand, represents the addressee's, that is, the State's, responsibilities *vis-à-vis* the beneficiary's claim.

It is significant to note that the complementary demand-supply dialectics implies an effective demand. Thus public action for development presupposes what we call an 'effective political demand', a counterpart of Keynesian effective economic demand for market equilibrium (Keynes, 1930).⁴ Just as purchasing power actuates effective economic demand, what effectuates public demand is organisation and mobilisation. Thus a dialectical equilibrium between popular demand (backed by a political purchasing power in terms of organisation and mobilisation) and public supply, if institutionalised and thus sustained, marks a virtuous development. In this sense, public action may be viewed as the engine of good governance.

2.2 Good Governance and the Role of the State

Such public action that brings in development in terms of a demand-supply dialectics, as explained above, warrants the active role of the state as the ultimate collectivity. From a human rights perspective, the State is then identified as the correlative duty bearer in creating and sustaining an enabling environment for individuals to realise their freedom from deprivation, that is development. Thus, "the State, as a primary duty bearer, has the responsibility to do its utmost to eliminate poverty by adopting and implementing appropriate policies. And the accountability of the State needs to be defined in terms of implementation

of policies." (UNDP, 2000: 77). Though it is primarily an instrument in pursuance of the self-interested legitimisation of the State, it could have far-reaching development implications. In Kerala too, as discussed elsewhere in this Report, despite being autarchic, the two princely states of Travancore and Cochin pioneered a development path through education and health in the name of welfare of the subjects. And with the emergence of popular welfare politics, this development path became inalienable to Kerala and continued to be the mainstay of policy, irrespective of its political colour.

2.3 Participatory Development

It is true that the role of the State in good governance is immensely significant. However, the vast heterogeneity in local aspirations and perspectives, needs and responses, tends to leave the direct management of the State responsibility very difficult, if not impossible. It is here that the direct participation of the communities in ensuring and enhancing an enabling environment assumes significance. For a number of situations it is reasonable to assume that local communities have perfect information on the specific problems they face, the actual and the possible constraints they encounter, and the potential solutions to be explored. As such, their direct participation in the design and implementation of the policies and programmes makes the enterprise fruitful.

The *panchayats*, an Indian tradition and the town assemblies, an American tradition, were among the early contributors to citizen participation, whereby all of the citizens in the community got together to decide on issues. In the Indian context it should, however, be noted that participation in the *panchayat* was based on caste divisions and as such it represented internal democracy within each social group, but not across the groups.

'Participation' along with 'empowerment' had been a dominant concept⁵ in sociology, anthropology and history for a long time before it experienced 'a renaissance in the 1990s' (Chambers, 1995: 30) through its adoption by political economy. There appeared to be 'a paradigm shift to participatory development' (*ibid.*), 'from top-down

³ See Kannan and Pillai (2004 and 2005) for more details.

⁴ This latter was developed from the Smithian 'effectual demand', the demand, which is 'sufficient to effectuate the bringing of the commodity to the market', by 'those who are willing to pay the natural price' (Smith 1776 [1976]: 73). On this line we postulate, based on the objective development experience of Kerala, an effective political demand to 'effectuate the bringing' of the progressive rights realisation that is development.

⁵ Arnstein (1969) in her seminal work conceptualises public participation as a ladder with each rung corresponding to the extent of citizens' power in determining public projects.

to bottom-up, from centralised standardisation to local diversity, and from blueprint to learning process' (Chambers, 1992). It took people as the agency of development rather than solely as the objects or the clients of development. Its adoption in political economy is said to have followed the increasing dissatisfaction with the extent of effectiveness and equity effects of the erstwhile growth-mediated, trickle-down development strategies, leading to 'ideas about beneficiary involvement' (Nelson and Wright, 1995: 3). The key idea behind the concept of participation is thus decentralisation, which was earlier entirely identified with the core micro system of local governance, for example, through the *Panchayati Raj* institutions in India.

In other words, community participation in the development process can be realised through either a unitary or a federal structure of State functionings. In the former, the State from its central core extends itself and acts through community groups or co-operatives, that is, the organised beneficiaries at the local level. Against this top-down approach, decentralisation of State power and functions marks the latter. Here the local bodies are empowered to function as local development institutions of self-government, and constitute an autonomous and hence ideal means of targeting and tackling development issues through co-operation and collective action.⁶ This in turn implies that the degree of decentralisation of power of a State is an indicator of its concern for and commitment to human development.⁷ It is in this second sense that participatory development is recognised today, with a second phase added to it that goes down to a still micro level of participation in self-help groups and user groups. In what follows we discuss the experience of Kerala in these ventures.

3. The Kerala Experience

3.1 The Constitutional Amendments: The Starter

As is by now well-known, direct local democracy in India has been mandated constitutionally through the 73rd and 74th Amendments⁸ which compartmentalised the rural and urban areas. A three-tier system was recommended for rural areas in States⁹ with the *grama panchayat* at the village

level, (the best forum for creating a mass base for grassroots planning), the intermediate *panchayat* at the block level and the district *panchayat* at the district level (73rd Amendment); for the urban local bodies (74th Amendment) municipalities were recognised as institutions of self-government and corporations were mandated to constitute ward committees; in smaller urban centres, town *panchayats* were constituted. The 74th Amendment provided for the setting up of District Planning Committees (DPCs) in each district of the State with the aim of helping the district prepare a plan encompassing both the rural and urban areas.

The *panchayat*/municipality/corporation was to have a tenure of five years and by providing 33 per cent reservation for women at all levels of local bodies and of decision-making, decentralisation provided a large political space for women in Kerala/India. The emphasis underlying the amendments was on strengthening the democratically elected government structures at local levels by assigning to them such powers and authority as may be necessary to enable them to operate as institutions of self-government. Hence within the new framework, a much larger, more developmental role was visualised for the local bodies contained in the two schedules, XI and XII to the amendments which comprised a list of functions considered 'appropriate' for devolution to local bodies.¹⁰ However, the lists were more in the nature of suggestions; nor did the schedules mention any resource raising arrangements by the local bodies. Hence, the State legislatures continued to retain the prerogative of deciding which functions to assign to



⁶ The principle of 'Cooperative Federalism' (decentralised implementation based upon harmonious understanding between the three tiers of governance—Central, State and Local) – is the basic premise of India's 9th Plan (Mathur, 2000).

⁷ According to Arnstein, citizen participation involves "the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future; means by which they can induce significant social reform which enables them to share in the benefits of the affluent society" (Arnstein, 1969: 216).

⁸ Details regarding these Amendments have been documented elsewhere (see for instance Mathur, 2000).

⁹ In Kerala, earlier attempts at decentralisation had recommended only a two-tier system focusing on the *grama panchayat*.

¹⁰ These included agriculture, rural electrification, poverty alleviation (29 items in schedule XI for rural areas), urban planning, slum improvement, etc. (18 items in Schedule XII in respect of urban areas) which went beyond the traditional tasks of local bodies in terms of delivery of basic services and locally necessary infrastructure.

the local bodies as also which taxes, duties, fees, licenses and tolls should be shared with the State or assigned to the local bodies. In an attempt to reduce *ad hocism* and arbitrariness in the “State-local” fiscal relations and strengthen the finances of local bodies, the amendments provided for the setting up of a State Finance Commission (SFC) in each State to periodically (every five years) recommend principles for distribution and determination of tax and non-tax revenues between the States and local bodies.

3.1.1 Kerala’s Initiative

The real test of the effectiveness of such a Constitutional mandate of decentralisation, however, depended on the success of those States that took up this task seriously. Kerala was one such State. The long period of stagnation in economic growth and the continuing problem of unemployment, in particular educated unemployment, caused considerable misgiving in policy and academic

circles about the Kerala ‘model’ of development (discussed in Chapter 1). The expectation that the high levels of achievements in social development should and would lead to higher levels of economic growth had not been fulfilled. There was also a felt need for improvement in quality of social services delivered by state government, which appeared to be deteriorating, whether it was in the educational institutions or the health care facilities.

Following the adoption of the 73rd and 74th Constitutional Amendments at the national level in late 1992, the Kerala *Panchayat* Act, 1994 and the Kerala Municipalities Act, 1994 were enacted by the Congress led UDF government in 1995 providing for the devolution of a majority of the functions specified in the amendments to the local bodies. The first election to the 3-tier *panchayati raj* system was also held and the PRIs came into existence by the last quarter of 1995. A separate document (Appendix 1V) was introduced in the 1996-97 budget by the ruling government (their last

Box 9.1: Devolution of Power

The following facts on the transfer of the development functions along with the concerned functionaries to the local governments summarise the quantum and quality of decentralisation in Kerala:

- i) In the *Health* sector: all institutions other than medical colleges and big regional speciality hospitals have been placed under the control of the local governments.
- ii) The entire *Public Sanitation* and almost the whole *Rural Water Supply* scheme are now under the local government responsibility.
- iii) In the *Education* sector: high schools in rural areas have been transferred to the District *Panchayats* and lower primary and upper primary schools to Village *Panchayats*; and in urban areas, all schools have been transferred to the urban local bodies.
- iv) In the *Agriculture* and allied sectors: the following are now in the domain of the local government functions – (a) Agricultural extension including farmer oriented support for increasing production and productivity; (b) Watershed management and minor irrigation; (c) Dairy development; (d) Animal Husbandry including veterinary care; and (e) Inland fisheries.
- v) All the *Poverty Alleviation* schemes, including the centrally sponsored anti-poverty programmes, are now planned and implemented through the local bodies.
- vi) In the field of *Social Welfare*: barring statutory functions relating to juvenile justice, all the functions are now carried out by local governments. The Integrated Child Development Scheme (ICDS) is fully implemented by Village *Panchayats* and Urban Local Bodies. Similarly, care of the disabled has become a local government responsibility to a substantial degree.
- vii) All the *Welfare Pensions* are now administered by the local governments.
- viii) *Connectivity* (roads), except highways and major district roads, has now become a local government responsibility.

The responsibility for promotion of Tiny, Cottage and *Small Industries* is now mostly with the local governments.

budget) providing figures of the devolved plan grant-in-aid (including untied funds) and schemes transferred to PRIs. A comprehensive general Government Order issued in September 1995 placed a large number of Government institutions, officials and personnel, both professional and ministerial, under the control of the local governments.

The new Communist-led Left Front which came to power in 1996 launched a People's Plan Campaign with a 'big bang'¹¹ approach. Decentralisation was thought of, if not as a panacea for all ills, as a way out of the specific problems facing Kerala. It was expected to facilitate local level development by mobilising both people and resources to strengthen the productive base, especially in the primary sector by creating and maintaining public and collective goods such as in land and water management and agricultural extension. In fact, the urge for decentralisation went beyond this. The aim was the establishment and institutionalisation of local self-government.

Since not much had happened by way of transfer of functions and functionaries from the line departments to the local bodies, in 1996, when the left led coalition came to power, a Committee on Decentralisation of Powers (known as the Sen Committee)¹² was appointed and based on its recommendations, comprehensive amendments were enacted in 1999 to the Kerala *Panchayati Raj* Act of 1994 and Kerala Municipality Act of 1994.

3.1.2 Decentralised Planning

Along with the appointment of the Sen Committee on decentralisation of powers, the State Government also initiated in 1996 a drive for decentralised planning in a 'campaign' mode, as mentioned earlier in an attempt at 'participatory development'. The experiment, given its uniqueness has drawn considerable attention of scholars and policy-makers at the national and international levels and we briefly touch upon its distinct features: One, the *process of planning* was emphasised to implement which an elaborate, phase-wise structure was designed to enable 'planning from below', starting with identifying felt needs/problems at the *grama sabha* level with a built-in gender component at each stage (see Box 9.2). Two, it started with a landmark government decision, at the beginning of the Ninth Five Year Plan, to earmark an amount of more than 35 per cent of the outlay of the Ninth Five Year Plan towards projects and programmes to be drawn up by Local Self-Government (LSGs) or *Panchayat Raj* Institutions (PRIs), (see Box 9.3). Three, a detailed *grama panchayat* wise data collection exercise¹³ was undertaken piecing together the history, present status, problems and development prospects of each sector and written up into a *Panchayat* Development Report (PDR) which served as a critical 'tool' for sectoral planning/project formulations by the 'task forces' (working groups in the Tenth Plan) set up by the GPs. Four, a massive training and capacity building exercise was undertaken at each phase of the plan process,

Box 9.2: Six Phases of the Planning Process during Ninth Plan

Phase		Period	Objective	Activities	Gender Component
I	<i>Grama Sabhas</i>	Aug. to Oct. 1997	Identify the felt needs of the people.	<i>Grama Sabhas</i> in rural areas and ward conventions in urban areas.	Special subject group in the <i>Grama Sabhas</i> to discuss gender problems.
II	Development Seminar	Oct. to Dec. 1997	Objective assessment of the resources, problems and formulation of local development perspective.	Participatory studies: Preparation of development reports, organisation of development seminars.	Special chapter in development report on gender issues. Special subject group for discussing gender issues in the development seminar.
III	Task Forces	Nov. 1997 to March 1998	Preparation of projects.	Meeting of task forces.	A special task force for women development projects. Gender impact statement of projects.
IV	Elected Bodies	March to June 1998	Formulation of plan at grass-root tiers.	Plan formulation meetings of elected representatives.	A separate chapter on women development project. Ten per cent to be set apart for women component plan.
V	Elected Bodies	April to July 1998	Formulation of plan at higher tiers.	Plan formulation meetings of elected representatives.	A separate chapter on women development project. Ten per cent to be set apart for women component plan.
VI	Volunteer Technical Corps ¹	May to Oct. 1998	Appraisal and approval of plans.	Meetings of expert committees.	

¹¹ It refers to the massive nature of the planning exercise under the People's Plan Campaign, in particular, the sudden devolution of financial resources and responsibilities to local bodies before waiting to build capacities of the functionaries to assume their new roles.

¹² Named after its Chairman, the late Mr S. B. Sen, then Vice Chairman of the West Bengal State Planning Board. Its final report was submitted in December 1997.

¹³ This was a gruelling experience since hardly any published information existed at the *panchayat* level and had to be collected from whatever records existed in village offices, which too was converted into a mass participatory exercise. Some of the PDRs contain very valuable information.

Box 9.3: Devolution of Funds

The significant features of Kerala's financial devolution to local governments are:

- i) The quantum of Plan funds earmarked for local governments has been unique in the country in the sense of being the highest, with the rural local governments getting a 70 to 85 per cent share in accordance with the rural population and the District and Block *Panchayats* sharing only the remaining more or less equally.
- ii) Around 90 per cent of the Plan funds have been given in a practically untied form to the local governments to prepare and implement their own projects within certain broad policy framework, stipulating that at least 40 per cent of the funds (10 per cent in urban areas) be invested in productive sectors and not more than 30 per cent (50 per cent in urban areas) on roads, and at least 10 per cent be earmarked for gender sensitive schemes. The broad policy framework has also fixed a consensual upper ceiling for subsidies in different categories of schemes.
- iii) The entire Plan grants are fully investible (that is, without involving any staff salary or other administrative cost commitments, which normally take away 20 to 25 per cent of the Plan at the State level).
- iv) Since the entire Plan grants due to local governments are separately budgeted in a document given as Annexure IV of the State Budget, which is passed by the Legislature, the grants remain non-divertible for other purposes by the executive.
- v) There has been designed a flow of funds procedure, by which the funds flow in four instalments. A local government is expected to spend at least 75 per cent of its allocation during a year, failing which the next year's allotment gets reduced by such shortfall.

covering elected representatives, officials and volunteers. There was training for trainers at the State level and at the district level. Five, a conscious attempt was made by the policy makers to address the issue of gender, at each stage of the planning process; women's needs were also specifically targeted through the Women Component Plan (WCP). The *panchayats* were advocated (later mandated) to provide 10 per cent of the Plan grant-in-aid for schemes specifically benefiting women.

3.2 The Repercussions of a Big Bang

While the mass mobilisation and involvement of PRI officials and the 'public' in the 'campaign' did contribute to building public awareness and support for decentralised planning, the exercise was fraught with certain limitations. The initial difficulties partially stemmed from the massive nature of the programme. By reversing usual procedures, that is, devolving responsibilities with finances to the local bodies before building capacity of the functionaries to assume their new roles, the result was a substantial underutilisation of resources in the initial years of planning, which improved over the years. Official figures show that over the whole

Ninth Plan period (1997-02), plan grant released to local bodies did not reach up to the 35 per cent planned to be allocated but almost 83 per cent of the released amount was spent which however, was lower for the Special Component Plan. In the case of state and centrally sponsored schemes the expended proportions were lower, 69 per cent and 75 per cent respectively (Kerala Economic Review 2003).

While it is true that despite devolution, financial resources with the local bodies would not be adequate to meet diverse demands from the people, a situation of not being able to spend the available resources emphasised the need to strengthen technical and administrative capacity of the PRI officials to fulfill their responsibilities. The need for training PRI officials was felt very strongly and intensive/ extensive training programmes were organised under the campaign. These massive programmes mobilised substantial outside technical experts, activists including members of voluntary organisations for providing critical technical and organisational inputs, and constituted as 'expert committees'. Without the support of voluntary organisations, like the Kerala Sastra Sahitya Parishad (KSSP), with its all-Kerala network and COSTFORD¹⁴ (largely in

¹⁴ COSTFORD stands for Centre of Science and Technology for Rural Development, a voluntary organisation, started under the leadership of the late C. Achuta Menon after he relinquished chief ministership. While in power he tried in vain to get the low-cost, but eco-friendly, building technology, developed by Laurie Baker, approved by the government system. But its diffusion accelerated principally due to the work of COSTFORD, which is also engaged in a number of rural development programmes. However, it was largely due to the insistence of Achuta Menon that the government system took cognisance of the need to examine 'alternatives' in construction works. It took exactly three decades for this alternative to be accepted by the government system, albeit limited to local level work.

Thrissur district), people's planning would not have been able to do the considerable amount of preparatory work it has done, as for example, in mobilising people, conducting seminars and camps, working as resource persons, drawing up projects and development reports, organising training programmes and the publication of a large number of books, manuals and guidelines.

But this invited considerable criticism on the ground that it resulted in a politicisation of the PRIs, reflected in the selection of experts and nature of mass organisations inducted into the campaign as also in muting the development of in-house capacity of PRIs and the difficulty of sustaining such an arrangement. Despite the substantial number of training programmes undertaken, however, what remained lacking, as brought out by some micro studies was a strengthening of capability for effective utilisation of resources. The expert committees have been recently abolished.

3.3 Decentralised Governance and Human Development

Whether decentralisation in Kerala, a sincere attempt at "bringing government closer to the people" and eliciting their participation, has resulted in enhancing well-being of the disadvantaged groups is a question, the answer to which is mixed- problems and successes abound (see Box 9.4 and Box 9.5). Its effectiveness can be gauged in terms of physical achievements or through beneficiary assessment of public expenditures and tracking improvements thereof in individual/collective well-being. In terms of physical achievements, spelt out in the official sources, the performance is impressive in the areas of agriculture related activities, self-employment generation, and in providing minimum needs infrastructure like housing, water supply, sanitation and connectivity. The local bodies are also credited with reasonably good performance in natural resource management, particularly in utilisation of water resources for productive purposes. However, there have only been a few isolated success stories in the productive sectors, where agricultural production and productivity have increased significantly. Similarly, one does not hear of many innovative schemes for skill development of the large numbers of educated unemployed with 10 or 12 years of general schooling, who constitute the hard core of the educated unemployed; perhaps this is a function to be performed at a higher tier of local governance. The outreach of health services as well as remedial coaching for laggard students has definitely improved and the infrastructure for health and education has been upgraded.



With respect to the functioning of the financial and accounting systems of *panchayats* under the campaign, where more effective action should have been taken by the state government to support the local governments in enhancing their capabilities, the situation was unsatisfactory. While the amended *Panchayat Act* (1999) exhorted local bodies to present integrated budgets including plan grant-in-aid, state and centrally sponsored schemes, own revenues, institutional finance and voluntary/beneficiary contribution, very little of this was found in practice. A substantial number of *panchayats* have still to complete their accounts for the Ninth Plan period.

Two important questions here are regarding a perceived transformation in the quality of service delivery, since quantity as we know has been less of a problem in Kerala; and second, to what extent has it resulted in greater horizontal equality. There has been a general view that quality of such services as education and health has not undergone any significant change, nor have disadvantaged groups like STs derived much benefits in public service delivery (Vijayanand, 2001; Eapen and Thomas, 2005). However, a recent study spread over a fairly large number of *panchayats* (72 in number) yields different results (Chaudhuri et al 2004). Based on responses from 'key respondents' in each *panchayat* (selected to capture a range of opinions across the socio-economic and political spectrum of Kerala society), the study highlights that the evaluation of change, before and after the campaign was positive, having moved from a predominantly 'below average' service delivery before to 'average' after the campaign. The range of services included primary health care, child care, primary education, drinking

Box 9.4: Decentralisation: Initial Challenges

Notwithstanding its physical achievements, the experiment has abounded with problems and further challenges (Vijayanand, 2001: 23-24):

- i) No staff increase has been provided for, and exemption made only in a few cases of professionals and highly skilled technical personnel and in special schemes with assistance for staff.
- ii) The outliers like Scheduled Tribes are still to gain from decentralisation. In scenarios where one section of the poor lives off another section, decentralisation has certain inbuilt limitations.
- iii) The poorest among the poor need social safety nets particularly for food and health emergencies. This cannot be provided by local governments.
- iv) The management of services particularly health and education have not been more efficient than before and these services have direct implications for local development especially poverty reduction.
- v) The flow of bank credit into local schemes has been limited resulting more from bankers' reluctance to deal with local governments than from inadequacies of project formulation. This has resulted in higher subsidies.
- vi) In a State like Kerala where the number of educated poor is very high there is an inherent limitation in local government action. Linkage with job markets through skill up-gradation or identification of self-employment opportunities or small-scale production activities with assured markets are all functions which can be done better at higher levels.
- vii) There is a tendency to spread resources thinly with preference being given to every electoral constituency whenever a development scheme is taken up. Distribution of assets and inputs, not necessarily productive, has been common.
- viii) Vertical integration of local level programmes has proved difficult to achieve.
- ix) Participatory aspect of planning is often limited to airing of needs and sharing of benefits. There is need for enhancing the quality of participatory planning so that there is a healthy discussion by all sections of the population based on data and norms, generating a prioritised list of developmental needs.

water, sanitation, roads, irrigation facilities, housing for poor, support for cultivators, income and employment creation for women, SCs and STs. Similarly by collecting data on social composition of participation (measured in terms of participants as a percentage of total relevant population) in *grama sabhas*, development seminars and project preparation by the task forces, the Chaudhuri et al study (2004) finds a fairly consistent representation of SC/ST groups and women over the three stages of the participation cycle. In terms of voice and empowerment of these groups through enhancing access to public services, such as housing, assistance to the poor, income and employment for women and SCs/STs, the response was that there was greater distributive justice for the disadvantaged groups under decentralised governance. However, it was still not adequate. We take up the gender question in greater detail.

3.3.1 Women's Empowerment

Given the tremendous interest generated in Kerala's decentralised development experience, which consciously attempted to address 'gender' issues, with a targeted women's component plan (WCP), high expectations had been aroused regarding its impact on gender justice. Would it enhance women's freedom in a society increasingly moving towards patriarchal structures within the family and in the public sphere? A number of studies were done to understand the nature and content of the WCP in terms of resource allocations and its impact on women both in terms of meeting their practical as also strategic gender needs (Isaac and Franke, 2000; Seema and Mukherjee, 2000; UNICEF, 2001; Radha and Chaudhury, 2003; Thampi, 2004; Eapen and Thomas, 2005).

Box 9.5: Lighting Up Remote Hamlets – Mini- and Micro-hydel Projects

Despite cent per cent rural electrification, achieved long back, more than 15 per cent of the households in Kerala still remain unelectrified, most of them being in remote hilly areas all along the Western Ghats. Electrifying these households from the grid involves problems of accessibility and high costs, on account of low density and long distance to be covered. The Electricity Act 2003 lays down that the appropriate government shall endeavour to supply electricity to all areas including villages and hamlets. The Act envisages formulation of two policies: a National Electricity Policy permitting standalone systems (including renewable and non-renewable sources), and a National Policy for Rural Electrification for purchase of bulk power and its local distribution in rural areas.

Micro- and mini-hydel power stations (up to 100 KW capacity) have already proved to be a useful standalone source for lighting up villages in remote, mountainous terrain in Jammu and Kashmir, Himachal Pradesh, Uttaranchal, West Bengal, and Andhra Pradesh as well as in Kerala. About 198 small hydel sites have so far been identified in Kerala with a total capacity of 467 mega watts (MW), of which 10 sites (with a capacity of 72 MW) have so far been set up, most of them in Idukki district, and another 10 (with 73 MW) are under construction (Government of Kerala, 2004). It should be noted that the decentralisation drives have opened up ample opportunities for exploiting the potential available for harnessing mini- and micro-hydel projects. Given the enabling environment, several local bodies have taken up initiatives to develop locally available sources of energy with people's participation.

Most studies found that armed with an understanding of gender¹⁵ as a crucial parameter in economic and social analyses, the proponents of the decentralised planning process made a sincere attempt to address women's issues with a view to 'empowering' them, that is enhancing their choices. The 'empowerment approach' had gained considerable popularity and appeal in the 1990s. Although first invoked in the 1980s and envisaged within a 'transformative' tradition of planning, characterised as a political, conflictual process, it came to be widely interpreted in very narrow terms in the mainstream development discourse of the 1990s. The analysis of the WCP, through a gender lens reveals that in Kerala too, despite the well meaning intentions of the policy-makers on mainstreaming gender into the Plan process, at the level of implementation the approach tied up much more with the narrow interpretation, relying heavily on 'empowering' women through self help groups. While the mandatory 10 per cent appears to have been more or less achieved for the five year period as a whole, some items of general expenditure were really ascribed to the WCP like *anganwadi* feeding, toilets, drinking water and roads, thereby cutting down on resources intended primarily for women.. There was hardly any difference in the nature of projects in the women headed *panchayats*. This is not to undermine considerable efforts by some *panchayats* to move into new areas such as IT, auto rickshaw driving, women's transport cooperatives, etc.

Given the fact that 70-75 per cent of women in Kerala are engaged in household duties, many of the SHG activities enabled women to combine roles and earn some incomes. Mushroom cultivation, poultry, kitchen garden, umbrella making, etc. allow work to be carried out in/near home and is not full time in nature. Women perceived these activities as a boon and the extra work appeared to be no burden to them. In fact, these are perceived to be better choices than working in the fields or as casual labour in non-agriculture, choices that are also dictated by the wide spread of literacy, and social norms/practices which shape job expectations.

While such an approach certainly enhances the choices and productivity levels of individual women, we have to see how this collectivity of women backed by a feminised political leadership can generate a larger agenda of changing the social environment for women. It was here that the strategy failed as far as gendered planning was concerned. The difficulty of translating innovative ideas into concrete projects for women to achieve greater gender justice, lay in the absence of a gender analysis framework. Discussions within such a framework (which also requires the presentation of gender statistics in a manner teasing out the underlying causes of unequal gender relations and the consequences) in the task forces (now working groups) would have helped in the formulation of more

15 That is the social relationship between men and women through which women have been systematically located in an inferior position in society.

innovative projects, at least under the WCP. The Tenth Plan guidelines allow for each *panchayat* to take up detailed studies on women's status under the WCP which is a welcome step; however this task has not been taken up in many GPs.

In sum, more attention needs to be paid to gender relations as mediators of development processes. Needless to state this is a very difficult area for programme intervention as it implies penetrating the household to tackle gender power relations. However, more practical and immediate policy responses lie in investing in advancing members' perceptions of social issues; the greater capacity building and training of resource persons from a gender perspective, within a gender analysis framework, including the ways in which social structures/institutions subordinate women; protecting women's rights of ownership over property and assets; improving their productivity and access to markets and enhancing their managerial skills and control.

3.3.2 The Prospects

Democratic decentralisation being a mature stage of participatory development, which in its comprehensive sense is the dynamic chain of progressive realisation of human rights, it goes without saying that the Kerala variant marked a first step towards it. It should be stressed that for the first time, village *panchayats* were granted greater freedom in matters relating to the design and implementation of construction works. So too in the case of minor irrigation and small drinking water projects. The *panchayats* are now responsible for managing a number of local level institutions such as schools and primary health centres, agricultural and animal husbandry extension centres, etc. Housing for the poor and drinking water projects are also being implemented in a manner that reflect the local conditions and requirements. However, as pointed out frequently, control over the devolved institutions is still incomplete, especially in matters relating to staff. While allotment of staff to the transferred institutions has occurred to a considerable extent, postings and appointments continue to be with the parent department.

As mentioned earlier, assessments of efficacy of decentralised governance in general and of muting horizontal inequalities in particular, are mixed though it is definitely recognised that local governments have gained significant stature in terms of autonomy and authority to plan, finance and implement a wide range

of well-being enhancing programmes and policies in a more inclusive framework. Local governments now have funds, functions and functionaries that they did not have before. However, equally important is the need to guard against its limitations, (see Box 9.6) and strengthen its functioning through greater responsiveness and need for accountability.

4. Institutionalisation of Decentralisation: From Campaign to Project

A major achievement, it must be recognised, is that the agenda of decentralisation has been mainstreamed in Kerala's development discourse. The present government that lost power after enacting the Kerala *Panchayat* and Municipalities Acts and came back to power in 2001 has also declared its commitment to the decentralisation process. However, it has replaced the 'campaign' mode with a 'project' mode, re-christening the 'People's Plan Campaign' as 'Kerala Development Programme', aiming to take decentralisation from the campaign mode to a phase of institutionalisation to make it sustainable. The emphasis now is on redeployment of the State government staff to the local bodies, training of both the officials and the elected representatives and introduction of accountability in financial transactions. At the same time, the new approach has not led to the kind of mobilisation of people at the grassroots level that was so characteristic of the 'campaign' mode.

The local governments are now expected to switch over from incremental annual planning to five-year planning during the Tenth Five Year Plan period (2002-07). During this new phase, they are to graduate from the phase of creation of infrastructure to that of promotion of local economic development. Rs. 8,000 crore was earmarked for local governments for the Tenth Plan with an Annual Plan outlay of Rs.1,250 crore, exactly one-third of the Plan size for preparing their own plans from below. Some major initiatives have already been launched for achieving the aim of institutionalisation of decentralisation in terms of i) a local self-government action plan, ii) a modernising government programme (MGP), iii) a decentralisation support programme and iv) a project for capacity development for decentralisation. The most important of these is, of course, the programme for modernising governance. It should be noted that 33 out of the 100 initiatives of the MGP relate to local governments with a package of initiatives, meant to strengthen the local governments so as to sustain the gains of decentralisation.

Box 9.6: The Administrative Reforms Committees

Over the years, it has come to be recognised that “serious inadequacies have crept into the reach and quality of the public services” with the “decline in the service ethos of government servants, the growing indifference of the staff and the increasing laxity in supervision.” (Government of Kerala 1998: Paragraph 1.3.2). It is in the face of such a state of affairs that three Administrative Reforms Committees (ARCs) were instituted in Kerala since its formation in 1956. The first Committee, under the chairmanship of late Shri E. M. S. Namboodiripad, the then Chief Minister, was constituted in 1957, the second Committee, under Shri. M. K. Vellodi, ICS, in 1965, and the third in May 1997, with the then Chief Minister Shri. E. K. Nayanar as its Chairman.

By the time the first ARC was constituted, there was a strong desire at the political level to make the administration people-oriented and to restructure it to facilitate implementation of progressive measures like decentralisation, land reforms, etc. The Committee outlined the process of planning from below, a democratic decentralisation process, so that officials and elected representatives could work in harmony for the greater betterment of the society. However, these ambitious plans mostly remained on paper, with no signs of decentralisation striking root and the bureaucracy still remaining inaccessible to the common man, such that the second Administrative Reforms Committee openly expressed its anguish at the slow pace of administrative reform in the State. The second Committee had also to take stock of the challenges of a growing welfare State with focus on human development, particularly health, education, social security and food security. The story however continued and the third ARC also noted with anguish that “fundamental reforms like democratic decentralisation, rationalisation of staff and department structures, merit promotion, office discipline, redefinition of secretariat functioning both in the administrative and finance wings, creation of Kerala Administrative Service, financial discipline particularly in creation of staff, etc. could not be fully implemented.” (Government of Kerala, 1998: Chapter 1, Para 1.2.1 *First Report of the Administrative Reforms Committee*)

5. Neighbourhood/Self-help Groups for Poverty Eradication

Along with ‘democratic’ decentralisation came the still micro level of participatory development through neighbourhood groups (NHGs), established at the local neighbourhood level, comprising 20 to 40 households below poverty line, the members being usually women. Such groups initially started with thrift activity and lending among members which was later expected to evolve into some economic activity. Some members of an NHG or drawn from different NHGs formed micro enterprise units organised as self-help groups (SHG). The latter decides on a production project, for instance, to manufacture umbrellas, soap, sandals, candles, incense, ready-made clothing, or electrical equipment; or a service such as a cooperative store or a teashop. Once the project was approved by the village *panchayat*, financing sources are matched together: micro financing by the participants themselves through a rotating credit association and a loan from a state or national bank supplemented by the village *panchayat* from its decentralisation funds. Though visualised as a participatory poverty reduction approach by means of a neighbourhood organisation of the poor, under the leadership of the local self governments, and as an effective platform for converging various anti-poverty

programmes of the State and Central governments, it should be noted, that these NHGs (as well as the ward committees) in effect represented a government-backed agency for a top-down unitary mode of participatory development. Nevertheless, this far-reaching experiment initiated in Kerala by the name of ‘Kudumbashree’ (Family Prosperity) has attracted wide attention.

5.1 Kudumbashree

5.1.1 The Backdrop

Kudumbashree is an innovative, women-centred poverty eradication programme being carried out since 1998 and 2000 in rural and urban areas of the State, respectively. The programme derived its inspiration from two welfare schemes, that is, ‘Community Based Nutrition Programme’ and ‘Urban Basic Services for the Poor.’ These programmes, which not only departed from the conventional welfare programmes in terms of approach but also encouraged community participation in all the stages of management, were implemented initially in seven wards of Alappuzha town in 1993 and extended further to the remaining 29 wards in 1994. The implementation of the Poverty Alleviation Programme with community participation in Alappuzha won

laurels from the United Nations. Alappuzha received “We the People: 50 Communities” Award initiated in commemoration of the 50th anniversary of the United Nations. In 1994 the Community Based Nutrition Programme and Poverty Alleviation Project (CBNP & PAP) started functioning with UNICEF assistance and participation of local community in the entire area of Malappuram, considered the most backward district of Kerala. Over 4,000 neighbourhood groups of poor women were formed under this project and they started mobilising savings, which touched over Rs. 2.50 crore in August 2004. They were also able to channelise financial assistance amounting to Rs. 2 crore from NABARD and other agencies. Around 700 neighbourhood groups were linked to various commercial banks under the Linkage Banking Programme of NABARD. The implementation of Government-sponsored programmes for improving health and sanitation in Malappuram district was channelled through neighbourhood groups.

These programmes shared many common traits in concept, approach, management and activities in alleviating poverty. For instance, these programmes used non-conventional indicators of poverty and used a community based organisational structure, which facilitated the active participation of poor women in planning and management. The phenomenal success of these welfare programmes, in terms of participation, management and outreach, gave enough impetus to extend and replicate them as an effective approach to alleviating poverty. When the State evolved a poverty eradication mission in 1998, referred to now as *Kudumbashree*, it incorporated the essential features of these welfare programmes.

5.1.2 The Objective

The principal aim of the *Kudumbashree* programme, mentioned in its mission statement, is ‘to eradicate absolute poverty in ten years,’ that is by 2007.¹⁶ The programme seems to embody the essential elements, both protective and promotional, of social security schemes, and hence can be viewed as a social security scheme. However, its scope and reach is far wider than any conventional social security schemes currently underway in the State. The advantage of the programme stems



from its unique approach to identify the poor, by using a multi-dimensional index, rather than just a mere shortfall in income. However, income (or expenditure) continues to be the overarching criterion both to identify, and to improve the condition of, the poor. *Kudumbashree* uses nine indicators,¹⁷ which are referred to as risk factors, to identify whether a household is poor or not.

Kudumbashree carries out a baseline survey, as a first step, to identify the extent of poverty within a locality or district. A household is considered poor, if it possesses four or more of the nine risk factors. The combination of any four risk factors provides 126 possible ways of finding a poor household. Thus, viewing poverty in this way, gives a range of possible ways to both identify the poor and initiate activities and address the causes and consequences of poverty. These risk factors seem to reflect, to some extent, the capability poverty, as some of the indicators, such as absence of sanitation, safe drinking water, employment and presence of physical and mental disability, are manifestation of capability deprivation and in that sense lack of human development. Therefore, addressing them fully may require more aspects than direct income supplement to the household (see Box 9.7).

¹⁶ It must, however, be added here that the programme was implemented initially in the urban centres of select districts and extended in a gradual, phased manner not only to other urban parts but also to rural parts of the districts. Hence, the target year, strictly speaking, would vary for different regions and districts.

¹⁷ They are: No land or less than 5 cents of land; No house or dilapidated house; No sanitary latrine; No access to safe drinking water within 150 metres radius; Women-headed household, presence of a widow, divorcee, abandoned woman or unwed mother; No regularly employed person in the family; Socially disadvantaged groups such as Scheduled Castes/Tribes; Presence of mentally or physically challenged person or chronically ill member in the family; and Families without colour television.

Box 9.7: Kudumbashree – Organisational Structure

Kudumbashree, employs a bottom-up approach in terms of its organisational structure and decision-making. The lower but central base of its three-tier organisational structure is Neighbourhood Groups (NHG). NHG is a voluntary association of 20-40 women members, who represent poor households identified through the four risk factors, of a neighbourhood. Area Development Society (ADS), the middle structure, is formed at the ward level by federating 8-10 NHGs belonging to a particular ward or area. Community Development Society (CDS) is the crest of the structure formed, at the *Panchayat*, Block or District level, by federating all ADSs.

Kudumbashree now covers 991 *panchayats* as well as 58 Municipalities across Kerala. Currently, 7,848 NHGs, 616 ADSs and 58 CDSs are functioning in the urban area of the State and 64,272 NHGs, 6,384 ADSs, and 700 CDSs are functioning in rural areas. The largest number of community development societies is formed in the most populated district of the State, Malappuram. Its rapid spread across the State in all the districts in terms of NHGs, ADS and CDS is remarkable.

Each NHG selects a five-member volunteer committee having specific responsibilities, such as President, Secretary, Community Health Volunteer, Income Generation Activities Volunteer and Infrastructure Volunteer. While the health volunteer takes primary responsibility for assessing the health needs of the neighbourhood group, the assessment of the nature and kind of income generation activities and infrastructure facilities belongs to income generation and infrastructure volunteers, respectively. President and Secretary not only ensure the smooth functioning of the group, in terms of regular meetings, overall assessment of needs, finalisation of activities and their implementation and follow-up, but also serve as a medium of integration with the concerned ADS, in which the NHG is federated. The presidents and secretaries of all the federated NHGs constitute the general body of ADSs, which elects a governing body consisting of a president, secretary and a five-member committee. The governing body members and chairpersons of all the ADSs constitute the general body of CDS. The general body of CDS elects a governing body consisting of president and a five-member committee.

An important component of the *Kudumbashree* structure is its association with, and backing from, local self-governments and bureaucracy both at the ADS and CDS levels. For instance, a ward level monitoring and advisory committee is formed under the chairpersonship of a ward member of the local body to integrate the activities of ADSs with the local self-governments. Also, representatives of resource persons selected from that area are nominated to the general body of ADSs. Similarly, representatives of resource persons and officers of the local body who are involved in implementing the poverty alleviation and women empowerment programmes are also nominated as members of the general body of CDS. While the Project Officer of the urban/rural poverty alleviation programmes is nominated as the member secretary, other government officials and representatives of resource persons are nominated as members of the governing body of CDS. It also has a monitoring and advisory committee with Municipal Chairperson or President of the *Panchayat* as its Chairperson and Municipal or *Panchayat* Secretary as Convener.

5.1.3 *Kudumbashree* and Human Development

Three important aspects, which make the *Kudumbashree* and its structure a unique programme merit mention here. First, contrary to most welfare or social security schemes, in principle, the decision-making authority rests with the elected representatives, who are poor women themselves rather than bureaucrats or politicians. Second, it has a dual advantage, which no other existing welfare programme can boast of: a functional dynamism which is found among the non-governmental organisations as well as strong interaction

with, and backing from, local self-governments and thereby gaining a legitimacy. Third, besides carrying out its activities to address the risk factors, it also conducts regularly a range of programmes with specific objectives, such as awareness and educational programmes on female empowerment, and entrepreneurship programmes, just to name two. Thus, it inculcates not only a sense of female empowerment but also helps to promote economic independence. These aspects make *Kudumbashree* a unique and rewarding programme, in which poor women become the active and informed agents of human development and social change.

5.1.4 Salient Features

The neighbourhood groups formed at the grassroots level are providing a social platform for poor women to express their concerns, discuss their problems, and search for better opportunities, which they think will improve their own living conditions. In fact, through this greater interaction among the poor women, they will be in a position to come forward with their own micro plans suitable to their own local conditions. These micro plans formed at the neighbourhood group level will be integrated at the Area Development Society level to form a mini plan. Further various mini plans prepared by the Area Development Societies will be integrated to form a CDS plan at the local government level. In fact, this CDS plan becomes the anti poverty sub plan of the village *panchayat* or municipality, for which one-third of the total development resources of the local government is set aside. Thus according to the Government of Kerala website 'CDS system has the right of voice, the power of choice and the entitlement of action that is real empowerment'.

Another noteworthy impact of the programme is the setting up of women's banking through the development of credit and thrift societies. As already mentioned, in the weekly meetings of the neighbourhood groups, the meagre savings of the poor women are collected and recycled through the sanction of loans. Thus, this programme enables the poor women to eke out some saving for a larger benefit. Further, it increases poor women's accessibility to small loans, which is very important for smoothening consumption. The self-respect, self-reliance and feeling of unity have also gone up among the poor women of Kerala. In Kerala, *Kudumbashree* has collected Rs. 230 crore as deposits and lent Rs. 320 crore as loans.

The most widely publicised feature of the programme is the setting up of micro enterprises using local resources as well as skills. Various commercial as well as co-operative banks are extending loans to *Kudumbashree* groups for starting productive activity. The authorities are arranging some training programmes for the women for upgrading their skills as well as for introducing them to new areas where the local demand is high. Thus, the programme aims at combining the local demand with local resources as well as skills to maximise local linkages.

Since economic self-reliance needs skills, resources and awareness about the market situation, an indirect process of learning is also taking place through the groups. In micro groups, women are the decision-makers as well as beneficiaries, which may help the women to shape their



own destiny or have a say in matters affecting their own lives. Further, the awareness building regarding education, health, nutritious food, etc. are also very important for the overall welfare of the family.

The large collectivity of poor women built up by the programme has been used by different departments for implementing different projects or programmes funded by the State or Central government. CDS's involvement in the solid waste management in the urban areas is worth mentioning, because this has been an unsolved problem for several years. Further through its networks both vertical as well as horizontal, *Kudumbashree* has increased the social capital of the poor, and this has the potential to boost the development momentum.

5.1.5 Major Achievements/Limitations

This section tries to document some of the achievements of *Kudumbashree* programme in quantitative terms. First, in Kerala the *Kudumbashree* programme organised 1,96,000 poor women from 58 Urban Local Governments and 98,119 women from 700 Village *Panchayats* of the State into 64,272 (Rural) and 7,848 (Urban) Neighbourhood Groups. In fact, this organisational base is now working as a platform for implementing several government sponsored poverty eradication programmes. Secondly, the Community Development Society system has already collected Rs. 64 crore as small savings of which more than Rs. 50 crore has been disbursed as loan among members for

contingency, consumption and income generation needs. Obviously, this is an indication of the development of saving habits among the poor women on the one hand and on the other this also indicates the increased accessibility of poor women to small loans.¹⁸ The repayment rate in the groups is 100 per cent.

Another major achievement of the *Kudumbashree* programme is evident in the 25,000 vibrant individual micro enterprises and 1,000 group enterprises, with minimum 10 women in each group, functioning in the State. Obviously, this shows the development of entrepreneurial skills among the poor women. Further, it also implies the development of managerial skills, productive skills and marketing skills, which are important for the women to take decisions affecting their own productive activity and lives. The activities undertaken were numerous ranging from direct marketing, IT unit, coir carpet and photo album making units. Almost 97 activities are undertaken by the various units of *Kudumbashree* in the state. The most frequently practised activities are direct marketing (69 units), IT units (59), soap making unit (50 units), catering service (45 units), canteen (45), dairy units (44), IT schools (43), ethnic delicacies (41), hotels (41) and garment units (40). Some of the different programmes implemented under the *Kudumbashree* during the last year include *balasabhas*, *vidyashree*, IT services to the poor, identification and rehabilitation of destitutes, linkage banking, lease land farming, etc.

In infrastructure development front too, *Kudumbashree* has made remarkable achievements. In Kerala, 36,617 houses and 34,679 toilets for the urban poor and 21,907 houses and 20,409 toilets for the rural poor have come up with the initiative and resources of the Community Development Societies.

The most striking limitation of the *Kudumbashree* programme is that out of 1,51,406 neighbourhood groups formed across the different districts of Kerala, not many are able to run viable micro enterprises. This fact raises the important question of why certain groups are functioning well while others are not, given the identical organisational as well as institutional framework for all the groups. The differences appear to be owing to the local set up in which the group is operating, initial endowment of the members of the group like higher educational qualifications,



nature of activity, other artisanal skills, connections to the mainstream social networks, previous experience, effectiveness of local government intervention with the group activities in the local area, etc. The replication of the same activity in a number of groups, aggravates the extant problems of marketing. Are these factors responsible for the differences in the functioning of the groups? A separate study on this issue is needed to correct the loopholes of the existing system.

Another major criticism raised against the self-help groups in general and *Kudumbashree* groups in particular is their inability to help the poorest of the poor to come out of poverty. This programme is asking the poor women to help themselves, with an additional help extended by the State. However, in this process of self-help many women belonging to the poorest of the poor families will be kept out of the entire system due to the inability to provide weekly savings, which is a prerequisite for getting membership in a group. In several seminars/workshops on women's empowerment, another major criticism voiced by the non-*Kudumbashree* SHG members is regarding the discrimination against such groups making it difficult for them to maintain membership and sustain their activities. It is also argued that the non-Left affiliations of the non-*Kudumbashree* SHGs aggravates the situation.¹⁹

Above all, while on paper, the *Kudumbashree* Programme, emphasises a holistic empowerment perspective, covering several dimensions of the lives of the poor, in particular of

¹⁸ Some of the measures announced in this year's Union budget will go a considerable way in strengthening the system of dispensing credit by micro-finance institutions (MFIs) in conjunction with self-help groups (SHGs) and non-governmental organisations (NGOs). There is indeed a welcome recognition in the Finance Minister's speech of the role MFIs have played in catering to the credit needs of the poorer sections of rural society. The Government hopes to enhance the beneficial role of the MFIs as an intermediary between banks and rural borrowers. Commercial banks will be allowed to appoint MFIs as their "banking correspondents" for providing a variety of services on their behalf. That will vastly increase their reach and remove some of the intractable rigidities that have stood in the way of the spread of rural banking.

¹⁹ Views often aired by members of non-*Kudumbashree* self-help/neighbourhood groups at women's meetings.



women, in practice, there is a tendency to neglect social development (as discussed in the section on Women Empowerment). Programmes such as *Kudumbashree* should invest more in 'social development'.

6. Concluding Observations

Political society will not only have to recognise but also to help the development of a civil society where the contributions of independent and collective initiatives are valued and countervailing institutions respected. Ordinary people should be seen as citizens, not clients. Such a shift

will, in our opinion, help evolve *panchayati raj* as an institution of local self-government, performing civic and also developmental functions. In this way the country may pay a small tribute to the original author of the *panchayat raj* whom we honour as the Father of the Nation.

Despite the grey areas, the *panchayati raj* institution has in effect both an intrinsic and an instrumental value in ensuring an enabling environment for development. It offers a public platform for a vigilant civil society, conscious of its rights and committed to the correlative duties, to act as a watchdog in the common interest of overall development. And in the one step forward taken by Kerala, we have a scope for the rise of such a platform. The social terrain in Kerala with a vigilant public, vigorous press, vibrant voluntary organisations and the unutilised and underutilised energies of younger men and women, willing and waiting, is large. A new paradigm of development politics has to emerge and respond to this social reality for the materialisation of that common interest, that is to sustain and further the virtuous growth cycle, the potential for which is higher in a stage of development, where the agencies of demand-supply dialectics of public action merge into one. The principal becomes the agent herself, that is, on the platform of participatory development through decentralisation that Kerala has now assiduously built up.

By Way of Conclusion

SUGGESTIONS AND RECOMMENDATIONS

1. Concluding Remarks

The predicted collapse that Kerala might not be able to sustain its attainments in human development has not come through. On the contrary, the State has been able to sustain and improve upon human development. The so-called 'limits' to the Kerala model of development appear to have somewhat receded. The analysis as contained in the present study explores Kerala's human development experience against the backdrop of its overall development experience. It identifies four crucial factors as contributing to this: the remittances from overseas migrants, the growth of the service sector, the earlier attainments in health care and in education. What is more, things are looking up on the economic front too with the evidence of a new class of entrepreneurs emerging. Diverse initiatives in the service sector and to some extent in manufacturing and agriculture related activities have been undertaken.

While appreciating Kerala's development experience thus, this report does not dismiss the need to address crucial problems.

Based on the analysis and findings of this Report, a series of suggestions and recommendations are given here for sustaining and enhancing human development in Kerala with a view to strengthening its potential linkages with the virtuous cycle of growth which seems to have been set in motion.

2. The Challenge of Eliminating Absolute Poverty and Deprivation

Although Kerala's absolute level, as well as the speed of progress, in achieving basic human development vis-à-vis the rest of India, is impressive, there is still a not-insignificant backlog in eliminating the absolute levels of poverty and deprivation. To start with, take the case of income poverty. As per the estimates of the Planning Commission, the incidence of absolute poverty is equivalent to around 4 million people (or a little more than 8 lakh households) at the beginning of this century out of a total population of around 32 million.¹ Our analysis has revealed that the focus here should be more on social (or occupational) groups than on regions. Separate statistics available for Scheduled Castes and Tribes show that the incidence of poverty among them is much higher than among the other segments of the population. Similarly, there are social groups such as fishing communities along the coastal areas and those engaged in agro processing such as coir and cashew processing, where the majority of the workers are poor women. Of course, there are special component plans for Scheduled Castes and Tribes and a number of special programmes and projects. The effectiveness in implementation of these should be given special attention.

The recent Cabinet decision on the Narendran Commission Report, to ensure adequate representation for Backward Classes in public services will help in reassuring greater social justice. An on-going anti-poverty programme involving the organisation of women into self-help groups, known as *Kudumbashree*, has come in for special commendation. This programme calls for special attention in terms of employment generation. Currently, the self-help groups are mostly involved in mutual savings and the employment component of the programme covers only a small segment of the members. Implementation of local level employment generation programmes deserves close attention.

The Report would like to draw attention to the Rural Employment Guarantee Act recently enacted (guaranteeing 100 days of wage employment in every financial year to every household whose adult members agree to do unskilled manual work), which has drawn considerable flak and scepticism from some academics and social activists in terms of a 'dilution' vis-à-vis the

original; need for a gigantic scale of resources rendering it infeasible etc. While the programme is laudable, it has to be seen from the point of view of a more substantial problem. Its emphasis on the generation of 'unskilled, manual work' on asset creating public works programmes, in the context of Kerala does not hold out much cheer for a State, as highlighted in our Report, where the problem of unemployment is significantly of educated unemployment and the work seekers have definite job/income expectations. Therefore, the need to allow greater flexibility to States (and within States to panchayats) in designing and implementing schemes appropriate to their specific local situations needs to be emphatically voiced. It could be imaginatively dovetailed to suit the requirements of the members of the Kudumbashree or other local development programmes of the panchayats. Special efforts will also have to be made to argue for the inclusion of social sector projects under the Employment Guarantee so that the requirements of unemployed and underemployed women could be taken into account.

2.1 Skill Formation for the School Educated

A long-term measure would be to create opportunities for the acquisition of new skills for young adults in the poorer households. As was pointed out in Chapter 5, 64 per cent of males and 54 per cent of females in the age group of 20-59 have at least a middle school pass, i.e. eight to ten years of education. As the percentage of illiterates in the young age population has almost vanished and the average years of school lengthened, it is this segment that dominates Kerala's labour force. They are also the least employable given their propensity to stay away from unskilled manual (and often field) labour, searching for a regular job of one kind or another. Skill formation and upgradation then assumes a critical factor in the employability of this segment of people. And their ability to overcome income poverty is closely related to their gainful employment given the fact that most poor in this segment do not have any productive assets. We shall return to this theme of skill formation and up-gradation later.

2.2 Focus on the Socially Disadvantaged

Although Kerala's record in human development achievement is higher than the rest of India, there is still a challenge to close the gap in some important aspects of deprivation other than the one based on income. This

¹ However, according to the Survey of Rural Development Department, there are nearly 17.23 lakh families below the poverty line (Economic Review, 2003).



has been captured in this Report in the form of constructing a Generalised Deprivation Index, which shows an incidence of around 30 per cent. There are some regional (inter-district) variations here but the districts, which experience the highest incidence, are Wayanad and Idukki. But here again the disparity is higher in terms of social groups than districts. *In specific terms, there is need to give special attention to the provision of pucca or permanent housing facilities to the Scheduled Castes and Tribes and similarly placed socially disadvantaged groups. Along with this, the provision of basic household facilities such as sanitary facilities, electricity and access to drinking water has to be given particular care. Given the experience of the last decade, the local governments (panchayats) are best placed to implement such schemes.*

While the problem of human deprivation (both in income and non-income terms) has a social dimension, there is an underlying occupational dimension, which is not adequately captured by existing data. The higher incidence of deprivation in such activities is rooted more in low and irregular employment than in wage rate per se coupled with the expectation of non-manual and regular work by the school-educated young adults from poor households. *As a prelude to focused policy initiatives, there is need for studies on the incidence and nature of poverty and deprivation according to households dependent on different occupations. Here again programmes that help skill formation and skill up-gradation are called for.*

2.3 Second Generation Problems and the Need to Focus on Quality

Kerala's achievements in human development have also thrown up important challenges. Better outcomes have been registered at low levels of income often manifested

in low levels of inputs. The average calorie intake is the lowest in Kerala among all Indian States and nutritional intake is characterised by low vitamin intake. These problems mainly affect the lower income groups. Public provisioning has taken care of minimum requirements and a wider distribution of these services. The focus henceforth has to be on enhancing the quantum and quality.

2.4 Strengthening Child Development

For example, the Integrated Child Development Scheme and the Mid-Day Meal Scheme for pre-school and school-going children leaves considerable scope for improvement of the quantity and quality of food given. In schools the meal usually consists of a gruel made of rice and cereals. *There was a policy announcement in 2002 to provide a glass of milk to school children. But that is yet to be implemented fully. It would have gone a long way in providing a balanced diet to the young children. Serious consideration should be given to revive the proposal and arrangements be made for the provision of milk.*

The financial implications of enhancing public provisioning are certainly of concern. Generally speaking, Kerala is a child-friendly society with innumerable opportunities for children in the field of formal and non-formal education, village level reading and recreation facilities, sports and arts festivals, children's clubs and a variety of voluntary organisations working with children. Successive governments have been child-friendly and have contributed to a healthy public policy on children. Despite considerable scope for improvement, there is hardly any incidence of child labour; most children are in school and child mortality is the lowest. The advanced stage of demographic transition resulting in less than two children per couple has helped enhance the value of children. But such a perception has also to be reflected at the societal plane. This is not absent; in fact children's programmes have acquired a collective social concern that are manifested in the establishment of children's organisations by social organisations, print media and political parties. Large-scale cultural events such as school youth festivals and sports events have acquired the status of big media events. Yet, *there is a perceptible deficit in the concern for the welfare of poor children from a social point of view. Otherwise the resources required for strengthening such socially relevant programmes like Mid-Day Meals would not have been in such deficit as they are today. Local communities and socio-cultural organisations spent enormous amounts of money in organising social and religious festivals and*



in ostentatious marriages as have been witnessed never before. A portion of the resources spent on these could go a long way in enhancing the quantity and quality of food provided to poor children in schools. This is something that the otherwise active civil society has to engage itself in. With some innovative initiatives, it is quite possible to realise such goals. This Reports calls on the civil society to engage in such sensitisation processes.

2.5 Concern for the Voiceless

The problem of poverty, especially income poverty, has been partly tackled by income transfer to specific vulnerable groups. And one of the long-standing schemes is the provision of old age pension to the poor. However, this scheme requires considerable strengthening. The monthly pension (Rs. 110 of which Rs. 75 is provided by the Central government under the National Social Assistance Programme) is too meagre and works out to less than 30 per cent of the per capita income required to cross the poverty line. *Much of the social security content of the old age pension for the poor is robbed of its worth when such pensions are distributed once in six or eight months as is the case in Kerala. Given the fact that these poor people have no voice or representation, there is no one to champion their cause. The State has a duty to ensure that monthly pensions and similar transfer payments to the poor are paid on a regular basis without running into arrears.*

2.6 Strengthening Social Security of Workers in the Unorganised Sector

The setting up and institutionalisation of Welfare Funds for workers in the unorganised sector has taken deep roots in Kerala. While some Funds have adequate contributions

and financial base, some others have a weak financial base given the limited capacity of workers to make contributions. In some others it has proved difficult to ensure timely contributions from the employers. There is a strong case to review the functioning of the Welfare Funds and streamline their functioning and inject a measure of professional management in investment of funds and delivery of benefits. An area that demands particular attention is that of administrative costs which should not be allowed to exceed the pre-determined level. These Funds are an example to the rest of India in providing a measure of social security to the households of workers in the unorganised sector and thereby help enhance their human capabilities.

2.7 The Need for Innovative Ways to Strengthen the PDS

For a long time the Public Distribution System played a pivotal role in ensuring food security in Kerala. The PDS has now undergone some decline arising out of the dual pricing system for Below Poverty Line (BPL) households and Above Poverty Line (APL) households. If there are no large-scale social protests or adverse impact arising out of this new system, it is mainly because of the easy availability of food grains in the market and the reduced price differential as between PDS and the open market. Yet there is a case for strengthening the PDS since the poor depend on it to a greater extent. The recent decision of the government to permit PDS shops to sell non-essential commodities is a welcome step in this direction. A persistent and common complaint is the low quality of food grains distributed through the PDS. This may be partly taken care of by sourcing quality food grains from other States on a bulk basis that would also act as a check on prices in the open markets.

2.8 Focus on Enhancing the Quality of Education as an Overarching Public Policy

The Report has highlighted that strengthening the virtuous cycle of growth based on human development warrants addressing the problem of quality. As an example, the case of education was discussed in Chapter 6. Kerala is ideally placed now to address the problem of quality because of the decline in the absolute number of children born and consequent reduction in the school-going population. Improving the physical amenities in government and aided schools should continue to receive attention. The positive role of Parent Teacher Associations (now existent in almost all schools) should be mentioned here

especially in construction of additional buildings, creating better amenities and providing transport facilities. But the problem of quality demands focused policy attention. The low standards in such subjects as Mathematics and English at the school level should be viewed as a matter of serious concern as indicated by the percentage of pass. Both are necessary skills in the changing labour market scenario. At the same time, *a greater degree of vocationalisation is called for at the high school level since not all students pursue university level education. They need employable skills, which could be acquired at the secondary and higher secondary levels. An option to pursue either a general education or vocational education from the eighth year of school should be considered while addressing the quality of education. Similarly, there is need to expand the opportunities to pursue vocational education at the higher secondary (plus two) and diploma levels in 'newer' skills given the changing nature of the job market.*

Reform of the curriculum is another area for qualitative improvement of the educational capabilities. This is particularly relevant at the level of college and university education. Barring minor exceptions, higher education has got trapped in a low level equilibrium, characterised by mediocre performances producing a disproportionate share of people with general degrees in arts, sciences and humanities without any specialised skills or knowledge commanding a premium in the job market. At the same time there is a fierce desire for entry into professional education stream, particularly in engineering and medicine for which the number of seats has enormously been increased. *The inability of the teaching community to respond positively to the challenge of improving quality and the inability of the system to initiate bold steps are forcing a number of good students to migrate to other parts of the country or the world.*

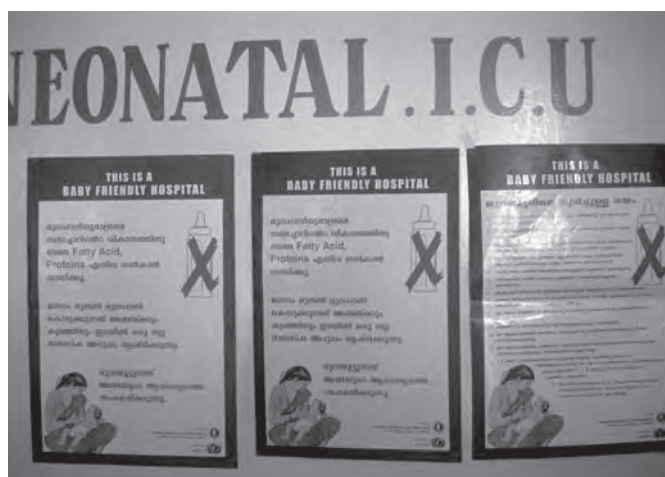
Any reform of the education system with a view to improving quality will have its impact only with a time lag. But there is already a stock of educated labour force whose problems of unemployment and underemployment is partly related to their absence of marketable skills and/or knowledge. Skill development programmes through short duration courses is one way to address this problem. And there is excess capacity in the system in terms of unutilised time of schools, colleges and training institutions as well as the availability of teachers (especially in a State where majority of teachers and professionals have to retire at the age of 55 with an average life expectancy of well beyond 70 to 75 years!). *This calls for an imaginative programme that could be self-financing if quality training in skill*

development is provided. Such a programme will benefit the educated but unemployed/unemployable youth especially the women.

2.9 Health Care System: Emerging Challenges

One of the findings of this Report with regard to health is Kerala's continuing remarkable achievement. But there are several new challenges that call for urgent attention.

Kerala's incidence of morbidity continues to be high in the all-India context. While part of this could be attributed to increases in life expectancy, studies have revealed that the incidence is higher among the poorer sections. Better nutrition, environmental sanitation and preventive health care programmes have to be intensified. Given the fact that these are not profit-making activities, this calls for enhanced public investment and greater effectiveness in implementation of programmes. More than two-thirds of curative aspects of health care are now in the private sector without government support. But the private sector of recent vintage, shows a higher propensity to create 'super-speciality' services that cater to the richer sections of the population. *There is a strong case for a regulatory mechanism for the private health sector appropriately packaged with policy regulations, incentives and disincentives. The elements of such a package will have to take into account the needs of the poorer sections, disposal of hospital wastes, and some role in preventive health care services. Some form of taxation of private health care services should also be thought of with a view to creating a fund for preventive health care services that could supplement the existing programmes. Other emerging areas of concern in which public initiative is necessary are the high levels of mental distress, higher incidence of life style diseases and alcoholism.*



Kerala has maintained a strong tradition of indigenous health care especially *ayurveda*. In recent periods there has been a considerable increase in demand for *ayurvedic* system of health care both in the domestic (regional and national) as well as in the international markets. In fact, Kerala has successfully factored *ayurvedic* health care into its tourism sector that has witnessed a steady increase. It goes to the credit of the State Government that it has maintained a public system of health care consisting of allopathy, *ayurveda* and homeopathy. Public policy should now focus on measures to introduce standards in *ayurvedic* health care services as well as manufacture of pharmaceuticals and related commodities. Innovative approaches to treatment, marketing and other services are called for. *There is a case for initiating high standards of research and development centres in ayurveda. Since financial resources are a constraint to any government initiative, possibilities of a consortium approach involving public-private partnership need to be explored. Such an initiative is likely to find favour with the Central Government as well. Given the size and enthusiasm of the Kerala diaspora, there is the potential to source resources from the 'external' sector as well. Since such a venture is unlikely to bring in commercial returns in the near term, establishment of a foundation for such research and development activities could be thought of. The highly experienced and reputed talents available within Kerala could be tapped for this purpose.*

While the private health care sector has now come to dominate the Kerala scene, one should not underestimate the important role being played by the public system. In fact a well functioning public health care sector acts as a check against the ill effects of a co-existing private sector. It is here that public policy has to be focused to strengthen the existing public health care sector. The lower rungs of this system such as Primary and Community Health Care Centres have partly been brought under the control of Village and Block level *Panchayats* with responsibility for maintaining the infrastructure and overseeing the functioning of institutions. *The continuing deficit in physical infrastructure as well as the shortage of qualified medical personnel (due to a higher opportunity cost of such specialists) are two areas that need to be taken care of. Two specific recommendations are put forward here. One, the creation of panchayat level funds for strengthening the public health system may be given serious consideration for supplementing the currently available resources. Second, vesting panchayats with powers to appoint medical and related health care personnel in the institutions under their supervision/control.*

3. Linking Human Development with Growth

A major outcome of this Report is the emerging, as well as encouraging, scenario in Kerala pointing to the possible emergence of a virtuous cycle of growth linking human development with growth. If this link has to be – and should be – strengthened, several policy initiatives are called for that are not necessarily focused on human development per se in a segmented sense. In chalking out the possible growth scenario, the Report has taken into account the regional character of the economy, the national context of economic liberalisation and its international linkages. The importance of non-traded sectors, where the threat of competition is relatively less, has been emphasised. The most critical aspect, both from a short and long-run point of view, is the management and development of critical infrastructure. *Concerted efforts are therefore called for to improve and develop such critical infrastructure as the supply of electric power, water control, road and water transport and environmental sanitation.*

A common factor in the development of critical infrastructure is the time and cost overruns. The Report has mentioned this with reference to the irrigation and power sectors. *A thorough review of the time and cost overruns of all infrastructure projects is called for with a view to developing a system whereby such overruns are eliminated for future projects.*

An equally urgent area of concern is that of environmental sanitation. While sanitation facilities of a personal and household kind are being taken care of, those in the realm of 'public bads' such as waste disposal and treatment have become subjects of increasing controversy and public concern during the last one-and-half decades, if not more. While Local Bodies are charged with the responsibility of environmental sanitation, they are not backed by adequate support in terms of resources, technical assistance and political will. Apart from its close connection with the quality of human development, environmental sanitation is also an important factor in Kerala's ability to pursue a sustainable growth strategy that is compatible with the preservation and augmentation of its ecosystem that has emerged as one of its 'assets' and the natural beauty that attracts so many visitors. The tourism industry has emerged as one with a high potential for development in Kerala. However, past experience in promoting tourism, for instance, the case of Kovalam, has not been very conducive to enhancing human development, resulting as it did in a negative



impact on the society (encouraging sex trade and drug trafficking), economy (very little benefits to local communities) and environment (littering and pollution) of the region (Jithendran and Baum, 2001). A *mission mode approach with a time-bound plan, for what has come to be termed as 'sustainable tourism' is called for to institutionalise a system which aims at improving the material and non-material well being of communities through the involvement of local resources/communities in the tourism programme, protecting biological diversity and emphasising environmental sanitation consisting of waste disposal, treatment and management. The rush for rapid tourism and its 'commercialisation' needs to be discouraged. All available sources of financial and technical assistance should be tapped for promoting 'sustainability oriented' tourism.*

Similarly while adopting steps to raise agricultural productivity as part of a growth strategy, as for instance in the case of cashew cultivation in north Kerala, given the growing demand for cashew kernels inside and outside the country since the 1990s, the impact of pesticide use on human well being has to be an important matter for consideration. Recent reports have brought out the fact that the continuous application of pesticides, such as endosulfan in this case, through aerial spraying on cashew plantations has impacted negatively on the health of the human population (Rajendran, 2002).

4. Gender Freedom and Unfreedom

Kerala's record in achieving high human development even at low levels of income is commendable also from the point of its gender dimension. In fact in many respects, girls and women perform better than their male counterparts. It is no exaggeration to say that women's agencies in Kerala

performed an important role in making the state literate, sending children to school and give priority to their health care requirements. The demographic transition owes at least partly to this.

However, such high levels of human development of women have not translated to comprehensive gender freedom. More than anything else, this is evident in the high incidence of unemployment especially of the school educated. As Chapter 7 has shown, the incidence of unemployment among women with 8 to 12 years of education (middle to secondary levels) is two-and-half to four times higher than men with similar educational attainments in rural and urban areas, respectively. Labour market discrimination is revealed through the narrow range of employment opportunities and a very low work participation rate. However, in opportunities opening up for them as for instance in the IT sector, tourism sector, as sales assistants in shops/establishments or as emigrant nurses, the vulnerability of women has to be well recognised and their safety/security ensured.

From both an economic and social point of view, it is a major challenge to tap the energy and talent of young educated women in Kerala. From the point of State policy, there is need for the development of employable skills for the currently unemployed and underemployed. Given the fiscal constraints of the government, it may not be feasible to rely entirely on government budgetary allocations. A *policy initiative is called for to provide a framework for promotion of skills with appropriate arrangements for certification to ensure high quality standards. In such a framework, private, as well as the non-profit sector participation is desirable to establish training institutions.*

It is the relatively poorer sections that experience high incidence of educated unemployment because their educational attainments are not high enough to secure regular jobs. A partial solution to this problem is possible through the strengthening of the *Kudumbashree* programme through which a sizeable section of women from relatively poorer households have been organised through self-help-groups. The programme is capable of up-scaling in terms of training for skills, development of a common brand that would stand for quality, management of the small enterprises initiated by women, common marketing and related support system and a whole host of initiatives that would address the twin problems of unemployment and poverty interpreted in the sense of generalised deprivation discussed in this Report.



Economic problems are relatively more amenable to public policy and government intervention. However, there are serious social problems of women's autonomy that are not compatible with 'human development'. Two major problems highlighted in this Report are dowry and domestic violence. Dowry, which previously was confined to a few sections, has now permeated to a large proportion of Kerala society. The system of matriliney has legally come to an end. Patriarchy has established a steady grip as in the rest of the country. Data on domestic violence has shown the seriousness of the problem. Social awareness and mobilisation, in an otherwise highly socially conscious Kerala, has failed to challenge such glaring gender unfreedom. Conservative notions of women's role in society still persist to a large extent. *From a human development point of view, public policy has to address these issues with far more seriousness than it has done hitherto. Public institutions such as the Women's Commission and the State Human Rights Commission have to perform a proactive role in addressing these issues. The political society in Kerala has so far shied away from confronting these issues. Now it is time these issues were taken up with a resolution by giving wide publicity to the kinds of behaviour that constitute crime against women along with the available statutory mechanisms of redressal.*

One of the reasons for the reluctance of the political society, especially political parties that otherwise dominate the civil societal space in Kerala, to get involved in gender issues, is the absence of any scope for meaningful participation by women. This is applicable to all political parties, big or small, and their numerous affiliate organisations, including trade unions. There is a high deficit in participation of women in the public

sphere too. Women's organisations have challenged this with some marginal success. One of the major turning points in addressing this deficit occurred with the 73rd and 74th Constitutional Amendments establishing the *Panchayat Raj*. Women in these elected bodies have now a little more than the mandated share of one-third of the seats. Initial doubts and concerns largely arising out of deeply embedded prejudices have proved to be untenable. However, this remarkable demonstration of participative ability in the public sphere has not been taken to the next stage of participation in the State Legislative Assembly. Kerala could have given a lead to this national agenda. *At the minimum, a debate on women's participation in the State Legislative Assembly, political parties, trade unions and other major people's organisations is called for.*

5. Issues In Governance

Kerala's record in governance of public institutions is a mixed one. Those addressing issues in human development have a relatively better record than the rest of India than those in the economic sphere. As pointed out earlier, in the area of critical infrastructure development, Kerala's record is a poor one indeed. However, in both the areas there is considerable scope for improvement. Several commissions and committees have examined the issues in governance but they remain, by and large, unimplemented. A concerted effort is now in progress in the form of Modernisation of Government Programme, that is in effect a summation of several of the earlier recommendations. *A time-bound implementation of the MGP will go a long way in addressing the nuts and bolts of the very many issues in governance, especially in areas relating to the delivery of public services. This will also strengthen the virtuous cycle of growth that appears to have come about as a result of the high level of human development achieved by Kerala.*

Special attention has to be paid in this regard to the functioning of the *Panchayat Raj* consisting of Village Panchayats, Block Panchayats and District Panchayats. Given the size of Village Panchayats in Kerala, the Block Panchayats have not been able to perform an active role. The policy has been one of strengthening the Village and District Panchayats. *There have been recommendations to do away with the Block Panchayats as they merely add to the administrative expenses. This agenda may be taken up along with the strengthening of the Village and District Panchayats. There is great need to strengthen the District Planning Committees (DPCs).*

Devolution of functions, funds and functionaries is key to the effective functioning of *panchayats*. The first two have been met in some reasonable measure. However, the inadequacy of functionaries continues to dog the effective functioning of *panchayats*, especially at the village level. Deployment of existing government staff has been going on at a snail's pace. The State government needs to address this problem in a time-bound manner. *The areas that call for further attention are (a) capacity building in terms of the Panchayat's ability to design, formulate and implement projects and programmes, and (b) administration of functions, accounting and financial management. The desirability of creating a Panchayat Administrative Service, as was done in Gujarat some time ago, warrants serious consideration in view of the fact that the third tier of government has to be institutionalised to strengthen the democratic governance of the country.*

A sizeable proportion of expenditure that contributed to the enhancement of basic human development in Kerala was borne by the State government. Given the public and 'collective good' nature of most of these expenditures, Government budget will continue to be the main source of expenditure. The need to strengthen potential linkages between human development and economic growth also calls for enhanced public expenditure especially in such critical infrastructure management and development as

power, drinking water, sanitation and so on. All these point to the crucial role of public revenue. As in the case of most States in India, the fiscal situation in Kerala is characterised by continuing deficits. Concerted measures are, therefore, called for to correct the situation. In the short term, every effort should be spared to ensure the full realisation of the revenue potentials. Studies point out that the extent of unrealised revenue is around one-third of the potential. This is a significant amount and would go a long way, if realised, in meeting the additional demands for resources in strengthening expenditures in sectors related to human development as well as infrastructure development. *Three sets of measures are proposed here: (1) Strengthening the revenue (both tax and non-tax) collection machinery at the State-level through a package of incentives and disincentives, estimating the potential revenue through detailed studies, and plugging the loopholes for evasion; (2) Strengthening the tax collection machinery at the panchayat level; and (3) Widening the tax base that should include the service sector which has emerged as the leading sector in the Kerala economy. This calls for consultations with other States as well as the Central Government since the States do not have the power to tax services. A more balanced federal financial relation would also contribute to the capacity of the States to advance the objective of human development.*

Technical Note

HUMAN DEVELOPMENT INDEX, GENDER DEVELOPMENT INDEX AND INDEX OF DEPRIVATION

A. Human Development Index For Districts In Kerala

Table 1: Kerala Human Development Indicators and Human Development Index (HDI)									
Districts	Real per capita Income (PPP\$) 2001-02	Life Expectancy at Birth 2000	Literacy Rate (7+) 2001	Gross Enrolment Ratio 2001	Income Index	Health Index	Education Index	HDI	Rank
Thiruvananthapuram	3,102	75.2	89.4	94.3	0.573	0.837	0.910	0.773	9
Kollam	2,885	77.1	91.5	96.1	0.561	0.868	0.930	0.787	6
Pathanamthitta	2,969	76.7	95.1	97.0	0.566	0.862	0.957	0.795	3
Alappuzha	2,989	77.1	93.7	96.8	0.567	0.868	0.947	0.794	4
Kottayam	3,286	75.6	95.9	97.0	0.583	0.843	0.963	0.796	2
Idukki	3,484	72.4	88.6	86.1	0.593	0.791	0.878	0.754	12
Ernakulam	3,646	75.9	93.4	99.1	0.600	0.849	0.953	0.801	1
Thrissur	3,117	76.4	92.6	101.4	0.574	0.857	0.950	0.794	5
Palakkad	2,513	76.1	84.3	99.5	0.538	0.851	0.894	0.761	10
Malappuram	1,881	75.6	88.6	96.8	0.490	0.843	0.913	0.749	14
Kozhikode	2,858	75.4	92.5	98.7	0.560	0.839	0.945	0.781	8
Wayanad	2,909	73.5	85.5	94.9	0.563	0.809	0.886	0.753	13
Kannur	2,719	75.6	92.8	101.0	0.551	0.844	0.955	0.783	7
Kasaragod	2,777	75.7	85.2	94.0	0.555	0.846	0.881	0.760	11
Kerala	2,895	74.6	90.9	97.3	0.562	0.827	0.930	0.773	

Computation of Human Development Index

The HDI is a summary measure of human development. It measures the average achievements in three basic dimensions of human development. As per UNDP, these dimensions are as follows:

- A long and healthy life, as measured by life expectancy at birth.
- Knowledge as measured by the adult literacy rate (with two-third weights) and the combined primary, secondary and tertiary gross enrolment ratio (with one-third weight).
- A decent standard of living, as measured by GDP per capita.

The methodology for computing the human development index in this Report is broadly same as that of UNDP method. However, we have used literacy rate of age 7 and above instead of adult literacy rate due to non-availability of data. Also, we have used gross school (up to high school) enrolment ratio instead of primary, secondary and tertiary gross enrolment ratio. The components of HDI used for computing districts are the following:

Dimension	Indicators
Longevity	Life expectancy at birth (years)
Knowledge	Literacy rate (age 7 years and above) (%) Gross school enrolment ratio (%)
Standard of Living	Real per capita income (PPP US\$)

An index has been constructed for each dimension by choosing maximum and minimum values for each of the underlying indicators. The goalposts for calculating HDI as used by UNDP are given below and we have used the same for computing district HDI.

Indicator	Maximum	Minimum
Life Expectancy at Birth (years)	85	25
Literacy Rate (7+) (%)	100	0
Gross Enrolment Ratio (%)	100	0
GDP per capita (PPP US\$)	40,000	100

The dimension index is calculated by applying a following general formula.

$$\text{Dimension Index} = \frac{X_i - \min X}{\max X - \min X} = 0.562$$

The Human Development Index is calculated by taking an average of the dimension indices.

Calculating the HDI for Districts in Kerala

1. Income Index

The income index is calculated using an adjusted NSDP per capita (PPP US\$). The district per capita NSDP in PPP\$ equivalent has been derived from the per capita NSDP in rupees (Kerala Economic Review) multiplying with the ratio of per capita GDP in PPP\$ in India and per capita GDP in rupees in India. For example,

Per capita NSDP for Kerala in 2001 at constant prices = Rs.10,963
Per capita GDP for India in 2001-02 at constant prices = Rs.10,754
Per capita GDP for India in 2001 US\$ PPP) = \$2,840
Per capita NSDP for Kerala in 2001 (\$PPP) = 10,963*(2840/10754) = 2,895

After estimating the district per capita NSDP in PPP\$ equivalent, the income index is derived using the formula below. The income index for Kerala is as follows.

$$\text{Income Index} = \frac{\log(2895) - \log(100)}{\log(40000) - \log(100)} = 0.562$$

The income index is adjusted using the above formula because achieving a respectable level of human development

does not require unlimited income. For details, see Anand and Sen (1994).

2. Life Expectancy Index

The life expectancy index measure the relative achievement in life expectancy at birth. As the life expectancy at birth is not available for the districts, we have derived this through an indirect estimation. The infant mortality rates estimated by the Registrar General of India for all the districts from the 1991 Census data have been used. First, district level infant mortality rates have been adjusted based on the SRS estimates given for Kerala in 1991. Assuming that the decline in the infant mortality rate in the districts is same that of Kerala as a whole during the period 1991-2000, infant mortality rates for all the districts have been projected for the year 2000. The life expectancy at birth in 2000 for all the districts has been derived from the model life tables on the basis of estimated level of infant mortality rates. The life expectancy at birth for Kerala was 74.6 years in 2000, the life expectancy index is:

$$\text{Life Expectancy Index} = \frac{74.6 - 25}{85 - 25} = 0.827$$

3. Education Index

The education index measures relative achievement in both literacy level as well as gross enrolment in the school. The literacy rate (7+) in 2001 by districts has been taken from Census 2001 and gross school enrolment ratio has been estimated by taking a ratio of number of persons enrolled in school (up to X standard, including CBSE, ICSE schools) in 2001-02 and corresponding school age population in 2001 (5-14 age group population). The indexes for literacy rates and gross enrolment ratio are calculated at first. Then, these indices are combined to derive an education index, with two-third weight given to literacy rate and one-third weight to gross enrolment ratio.

For Kerala, the literacy rate is 87.9 per cent and the gross enrolment ratio is 97.3 per cent. The literacy and enrolment index are computed as follows.

$$\text{Literacy Index} = (87.9 - 0) / (100 - 0) = 0.879$$

$$\text{Gross Enrolment Index} = (97.3 - 0) / (100 - 0) = 0.973$$

$$\text{Education Index} = (2/3) * \text{literacy index} + (1/3) * \text{gross enrolment index} = (2/3) * 0.879 + (1/3) * 0.973 = 0.910$$

4. Calculating the HDI

The three dimension indices have been used to compute the HDI. It is a simple average of the three dimension indices.

HDI = (1/3)*(income index + life expectancy index + education index)

The HDI for Kerala is HDI (Kerala) = (1/3) (0.562 + 0.827 + 0.910) = 0.773

B. Gender-Related Development Index (GDI) for Districts in Kerala

Table 1: Gender Related Development Indicators								
Districts	Real per capita Income (PPP US\$)		Life Expectancy at Birth (years)		Literacy Rate (7+) (%)		Gross Enrolment Ratio (%)	
	Female	Male	Female	Male	Female	Male	Female	Male
Thiruvananthapuram	1,021	5,301	75.7	74.8	86.3	92.7	95.2	93.4
Kollam	1,128	4,958	78.3	75.9	88.6	94.6	95.2	96.9
Pathanamthitta	986	5,164	77.4	76.0	93.7	96.6	96.0	97.9
Alappuzha	1,339	5,160	78.3	75.9	91.1	96.4	96.0	97.6
Kottayam	1,024	5,526	76.5	74.7	94.5	97.4	96.9	97.1
Idukki	1,736	5,765	73.3	71.7	85.0	92.1	84.4	87.8
Ernakulam	1,288	6,107	76.9	75.0	91.0	96.0	98.2	100.0
Thrissur	1,090	5,416	77.4	75.5	89.9	95.5	100.7	102.1
Palakkad	1,116	4,315	77.2	75.0	79.3	89.7	98.9	100.1
Malappuram	370	3,223	76.1	75.2	86.0	91.5	95.9	97.7
Kozhikode	601	4,885	76.3	74.4	88.9	96.3	98.3	99.1
Wayanad	1,284	4,830	76.2	71.0	80.8	90.3	94.6	95.3
Kannur	969	4,720	77.0	74.3	89.5	96.4	100.2	101.9
Kasaragod	1,270	4,721	76.2	75.3	79.8	90.8	92.7	95.2
Kerala	1,021	4,948	75.5	73.7	87.9	94.2	96.7	98.0

Table 2: Gender Related Development Dimension Indices								
Districts	Index of Income		Index of Life Expectancy at Birth		Index of Literacy Rate		Index of Gross Enrolment Ratio	
	Female	Male	Female	Male	Female	Male	Female	Male
Thiruvananthapuram	0.388	0.663	0.803	0.872	0.863	0.927	0.952	0.934
Kollam	0.404	0.652	0.847	0.890	0.886	0.946	0.952	0.969
Pathanamthitta	0.382	0.658	0.832	0.892	0.937	0.966	0.960	0.979
Alappuzha	0.433	0.658	0.847	0.890	0.911	0.964	0.960	0.976
Kottayam	0.388	0.670	0.816	0.870	0.945	0.974	0.969	0.971
Idukki	0.476	0.677	0.763	0.819	0.850	0.921	0.844	0.878
Ernakulam	0.427	0.686	0.823	0.876	0.910	0.960	0.982	1.000
Thrissur	0.399	0.666	0.832	0.884	0.899	0.955	1.000	1.000
Palakkad	0.403	0.628	0.828	0.876	0.793	0.897	0.989	1.000
Malappuram	0.218	0.580	0.809	0.878	0.860	0.915	0.959	0.977
Kozhikode	0.299	0.649	0.814	0.865	0.889	0.963	0.983	0.991
Wayanad	0.426	0.647	0.812	0.808	0.808	0.903	0.946	0.953
Kannur	0.379	0.643	0.825	0.863	0.895	0.964	1.000	1.000
Kasaragod	0.424	0.643	0.812	0.880	0.798	0.908	0.927	0.952
Kerala	0.388	0.651	0.800	0.854	0.879	0.942	0.967	0.980

Table 3: Gender Related Development Index (GDI)

Districts	Equally Distributed Index for			GDI	GDI Rank
	Income	Health	Education		
Thiruvananthapuram	0.486	0.835	0.910	0.743	9
Kollam	0.495	0.867	0.930	0.764	6
Pathanamthitta	0.478	0.859	0.957	0.765	5
Alappuzha	0.518	0.867	0.947	0.777	1
Kottayam	0.490	0.842	0.963	0.765	4
Idukki	0.559	0.790	0.877	0.742	11
Ernakulam	0.525	0.848	0.953	0.775	2
Thrissur	0.493	0.856	0.950	0.766	3
Palakkad	0.487	0.850	0.892	0.743	10
Malappuram	0.313	0.841	0.913	0.689	14
Kozhikode	0.406	0.838	0.945	0.730	13
Wayanad	0.514	0.810	0.886	0.736	12
Kannur	0.472	0.843	0.951	0.755	7
Kasaragod	0.509	0.844	0.879	0.744	8
Kerala	0.483	0.825	0.930	0.746	

Computation of Gender-Related Development Index

The Gender-related Development Index (GDI) adjusts the average achievement to reflect the inequalities between men and women in human development. The dimensions used for computing GDI by UNDP are as follows:

- A long and healthy life, as measured by life expectancy at birth.
- Knowledge as measured by the adult literacy rate (with two-third weights) and the combined primary, secondary and tertiary gross enrolment ratio (with one-third weight).
- A decent standard of living, as measured by GDP per capita.

The methodology for computing the gender-related development index in this report is broadly same as that of the UNDP. However, we have used literacy rate of age 7 and above instead of adult literacy rate due to non-availability of data. Also we have used gross school (up to high school) enrolment ratio instead of primary, secondary and tertiary gross enrolment ratio. The components of GDI used for computing districts are the following:

Dimension	Indicators
Longevity	Life Expectancy at Birth (years)
Knowledge	Literacy Rate (age 7 years and above) (%) Gross School Enrolment Ratio (%)
Standard of Living	Real per capita Income (PPP US\$)

In the first step, female and male indices for each dimension are calculated applying the following general formula.

$$\text{Dimension Index} = \frac{\text{Xi-minX}}{\text{max X-minX}}$$

The maximum and minimum values for each of the underlying indicators are those fixed as goalposts by the UNDP. The goalposts for each of the indicators are given below.

Indicator	Maximum	Minimum
Female Life Expectancy at Birth (years)	87.5	27.5
Male Life Expectancy at Birth (years)	82.5	22.5
Literacy rate (7+) (%)	100	0
Gross Enrolment Ratio (%)	100	0
Estimated Earned Income (PPP US\$)	40,000	100

In the second step, the male and female indices in each dimension are combined that penalises differences in achievement between men and women. The resulting index, referred to as the equally distributed index, is calculated according to this general formula:

$$\text{Equally Distributed Index} = \left\{ \frac{[\text{female population share} * (\text{female index})^{1-\epsilon}] + [\text{male population share} * (\text{male index})^{1-\epsilon}]}{2} \right\}^{1/(1-\epsilon)}$$

The ϵ measures the aversion to inequality. In the GDI, ϵ is taken as equal to 2. Then the equally distributed index is defined as

$$\text{Equally Distributed Index} = \left\{ \frac{[\text{female population share} * (\text{female index})^{-1}] + [\text{male population share} * (\text{male index})^{-1}]}{2} \right\}^{-1}$$

This gives the harmonic mean of the male and female indices.

In the last step, GDI is calculated by taking a simple average of the three equally distributed indices.

Calculating the GDI for districts in Kerala

1. Computing Equally Distributed Income Index

First, per capita income for women and men are calculated from the female share and male share of earned income. The female share of earned income is computed using the formula given below.

$$\text{Female Share of Earned Income} = \frac{\text{ratio of female to male wage} * \text{share of female workers}}{\text{ratio of female to male} * \text{share of female workers} + \text{share of male workers}}$$

According to NSS (1999-00), the rural agricultural wage for females in Kerala was Rs. 62.2 and for men, it was Rs. 94.5. The wage for non-agricultural unskilled women workers was Rs. 94.1 and for men, it was Rs. 131.9. We have taken the average of rural agricultural wage and non-agricultural unskilled workers wage for deriving a ratio of female wage to male wage in Kerala. As wage data is not available by district, we assumed the same ratio for all the districts. The share of female worker for each district has been taken from the 2001 Census.

The estimated female share of earned income has been used to compute the per capita NSDP of women and per capita NSDP of men. These per capita incomes have been adjusted for equivalent to PPP\$ using the procedure explained in HDR Technical Note.

The income dimension index for female and male has been computed using the formula given above.

These indices have been used to compute the equally distributed income index.

2. Equally Distributed Life Expectancy Index

The female life expectancy at birth and male life expectancy at birth have been estimated for the districts in Kerala using the procedure explained in the HDR technical note. In the first step, separate indices for male achievements and female achievements in life expectancy at birth have been computed using general formula for dimension index. These dimensions indices are combined to compute the equally distributed life expectancy index.

3. Equally Distributed Education Index

In the first step, indices of literacy rate (7+) and gross school enrolment ratio are calculated separately for males and females. In the second step, the education index for male and female have been calculated by giving two-thirds weight to the literacy rate and one-third weight to the gross enrolment index. Finally, the female and male education indices have been combined to get the equally distributed education index.

C. Index of Deprivation for Districts in Kerala

The index of deprivation measures the deprivation in the four basic necessities of well being such as quality of housing, access to water, good sanitation and electricity lighting. The following indicators are used for constructing index of deprivation.

a. Deprivation in Quality of Housing (d_1)

This is measured through percentage of households not residing in a permanent house. The permanent house means the walls and roofs are made of permanent materials.

b. Deprivation in Access to Water (d_2)

The deprivation in access to water is measured through the percentage of a household's source of drinking water is away from the house. In the case of urban area, the drinking water source is considered away if the source is located beyond 100 metres from the premises of the house. In the rural area,

source is considered away if the households have to cover a distance of more than 500 metres to fetch the water.

c. Deprivation in Good Sanitation (d_3)

Deprivation in good sanitation is measured through households who do not have water closet latrine.

d. Deprivation in Electricity Lighting (d_4)

Deprivation in electricity lighting is measured through percentage of households who do not have the source of lighting as electricity.

The above indicators for all districts in Kerala and by social groups have been derived from the housing data from Census 2001.

The formula for calculating an index of deprivation is similar to that of human poverty index used by UNDP. The formula is as follows:

$$\text{Index of Deprivation} = [1/4(d_1^\alpha + d_2^\alpha + d_3^\alpha + d_4^\alpha)]^{1/\alpha}$$

If the $\alpha = 1$, the index of deprivation is the average of its indicators. As the α increases, greater weight is given to the indicators in which there is the most deprivation. Like human poverty index, we have chosen a value of $\alpha = 3$ for computing the index of deprivation.

For an example, the index of deprivation for Kerala is computed as follows:

$$d_1 = 31.9; d_2 = 12.0; d_3 = 34.8; d_4 = 29.8$$

$$\begin{aligned} \text{Index of Deprivation (Kerala)} \\ = [1/4(31.9^3 + 12.0^3 + 34.8^3 + 29.8^3)]^{1/3} = 29.5 \end{aligned}$$

District Profiles

Thiruvananthapuram

Indices	2001	
Human Development Index (HDI)	0.773	
HDI Rank	9	
Gender Related Development Index (GDI)	0.743	
GDI Rank	9	
Index of Deprivation (overall)	39.5	
Scheduled Caste	54.4	
Scheduled Tribe	60.1	
Others	37.0	
ID (overall) Rank (From lowest to highest)	11	
Population	1991	2001
Population Size (lakhs)	29.47	32.35
Share of State's Population (%)	10.1	10.2
Area (sq. km.)	2,192	
Share of State's Area (%)	5.6	
Urban Population (%)	33.88	33.78
Density of Population (per sq. km.)	1,344	1,476
Share of SC Population (%)	11.9	11.9
Share of ST Population (%)	5.0	5.7
Health	2001	
Infant Mortality Rate (per 1000 births)	11	
Life Expectancy at Birth (years)	75.2	
Crude Birth Rate (per 1000 pop.)	16.4	
Total Fertility Rate (per woman)	1.6	
Full Antenatal Care ¹ (%)	71.8	
Institutional Deliveries ¹		
Public (%)	67.3	
Private (%)	32.6	
Complete Immunisation ¹ (%)	81.6	
Low Birth Weight (%)	11.4	
Suicide Rate (per lakh population) ²	33.4	
Number of Beds (per lakh population)	238	
Education	1991	2001
Literacy Rate (%)	89.2	89.4
Literacy Rate among SC (%)	82.1	
Literacy Rate among ST (%)	74.0	
Gross Enrolment Ratio (%)	94.3	
Cohort Retention Rate to Std. 10 (%) ³	91.0	
Student-Teacher Ratio	31	30
No. of Female Teachers to Total (%)	67	75
Schools having Pucca Buildings (%)	60.3	

¹ Refers to 1998-99.

² Refers to 2003.

³ Ist Std in 1993-94.

District Information	2001
No. of Block Panchayat	12
No. of Grama Panchayat	78
No. of Villages	116
No. of Municipalities	4
No. of Corporations	1
Economy	2001
Real per capita Income (PPP\$)	3,102
Share of Net State Domestic Product	
Primary (%)	17.3
Secondary (%)	21.4
Tertiary (%)	61.3
Gender	2001
Literacy Rate (%)	
Male	92.7
Female	86.3
Gross Enrolment Ratio (%)	
Male	93.4
Female	95.2
Sex Ratio (F/M) (per 1000)	1,058
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage ¹ (years)	
Male	28.0
Female	22.6
Work Participation Rate (%)	
Male	51.5
Female	14.4
Crime Against Women (per lakh female population)	52
Employment	2001
Work Participation Rate (%)	32.0
Cultivators Workers (%)	5.2
Agricultural Labourers (%)	15.4
Workers in Household (%)	4.2
Other Workers (%)	75.2
Household Status	2001
Households with Pucca House (%)	47.6
Households with Access to	
Electricity (%)	74.9
Water Closet Latrine	56.0
Water within 100 Metre Distance	90.5
Infrastructure	2001
Area Served per Post Office (sq. km.)	5.2
Population Served per Post Office (no.)	7,720
Telephone Connections per sq. km.	140
Telephone per 1000 Population	94
Road Length per 100 sq. km. ²	84.6

Kollam

Indices	2001	
Human Development Index (HDI)	0.787	
HDI Rank	6	
Gender Related Development Index (GDI)	0.764	
GDI Rank	6	
Index of Deprivation (overall)	30.4	
Scheduled Caste	47.8	
Scheduled Tribe	50.7	
Others	27.7	
ID (overall) Rank	8	
Population	1991	2001
Population Size (lakhs)	24.08	25.84
Share of State's Population (%)	8.3	8.1
Area (sq. km.)	2,491	
Share of State's Area (%)	6.4	
Urban Population (%)	18.53	18.03
Density of Population (per sq. km.)	96.7	1,038
Share of SC Population (%)	10.3	10.3
Share of ST Population (%)	1.2	1.4
Health	2001	
Infant Mortality Rate (per 1000 births)	8	
Life Expectancy at Birth (years)	77.1	
Crude Birth Rate (per 1000 pop.)	16.2	
Total Fertility Rate (per woman)	1.6	
Full Antenatal Care (%)	90.2	
Institutional Deliveries		
Public (%)	48.3	
Private (%)	51.6	
Complete Immunisation (%)	90.6	
Low Birth Weight (%)	12.0	
Suicide Rate (per lakh population)	43.6	
Number of Beds (per lakh population)	92	
Education	1991	2001
Literacy Rate (%)	90.5	91.5
Literacy Rate among SC (%)	79.6	
Literacy Rate among ST (%)	62.4	
Gross Enrolment Ratio (%)	96.1	
Cohort Retention Rate to Std. 10 (%)	93.7	
Student-Teacher Ratio	31	31
No. of Female Teachers to Total (%)	67	76
Schools having Pucca Buildings (%)	85.8	

District Information	2005
No. of Block Panchayat	13
No. of Grama Panchayat	69
No. of Villages	104
No. of Municipalities	2
No. of Corporations	1
Economy	2001
Real per capita Income (PPP\$)	2,885
Share of Net State Domestic Product	
Primary (%)	27.4
Secondary (%)	23.7
Tertiary (%)	48.9
Gender	2001
Literacy Rate (%)	
Male	94.6
Female	88.6
Gross Enrolment Ratio (%)	
Male	96.9
Female	95.2
Sex Ratio (F/M) (per 1000)	1,070
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	28.2
Female	22.2
Work Participation Rate (%)	
Male	48.5
Female	16.7
Crime Against Women (per lakh female population)	25
Employment	2001
Work Participation Rate (%)	32.1
Cultivators Workers (%)	6.8
Agricultural Labourers (%)	14.7
Workers in Household (%)	2.4
Other Workers (%)	76.1
Household Status	2001
Households with Pucca House (%)	68.9
Households with Access to	
Electricity (%)	73.0
Water Closet Latrine	60.3
Water within 100 Metre Distance	92.3
Infrastructure	2001
Area Served per Post Office (sq. km.)	6.8
Population Served per Post Office (no.)	7,079
Telephone Connections per sq. km.	95
Telephone per 1000 Population	77
Road Length per 100 sq. km.	59.7

Pathanamthitta

Indices	2001	
Human Development Index (HDI)	0.795	
HDI Rank	3	
Gender Related Development Index (GDI)	0.765	
GDI Rank	5	
Index of Deprivation (overall)	31.1	
Scheduled Caste	50.3	
Scheduled Tribe	54.6	
Others	27.8	
ID (overall) Rank	9	
Population	1991	2001
Population Size (lakhs)	11.88	12.32
Share of State's Population (%)	4.1	3.9
Area (sq. km.)	2,642	
Share of State's Area (%)	6.8	
Urban Population (%)	13.05	10.03
Density of Population (per sq. km.)	450	574
Share of SC Population (%)	5.5	52
Share of ST Population (%)	2.2	1.8
Health	2001	
Infant Mortality Rate (per 1000 births)	8	
Life Expectancy at Birth (years)	76.7	
Crude Birth Rate (per 1000 pop.)	14.5	
Total Fertility Rate (per woman)	1.5	
Full Antenatal Care (%)	84.8	
Institutional Deliveries		
Public (%)	27.5	
Private (%)	72.4	
Complete Immunisation (%)	91.4	
Low Birth Weight (%)	18.0	
Suicide Rate (per lakh population)	32.9	
Number of Beds (per lakh population)	97	
Education	1991	2001
Literacy Rate (%)	74.9	95.1
Literacy Rate among SC (%)	86.5	
Literacy Rate among ST (%)	73.2	
Gross Enrolment Ratio (%)	97.0	
Cohort Retention Rate to Std. 10 (%)	97.3	
Student-Teacher Ratio	27	25
No. of Female Teachers to Total (%)	73	79
Schools having Pucca Buildings (%)	97.3	

District Information	2005
No. of Block Panchayat	9
No. of Grama Panchayat	54
No. of Villages	67
No. of Municipalities	3
No. of Corporations	NIL
Economy	2001
Real per capita Income (PPP\$)	2,969
Share of Net State Domestic Product	
Primary (%)	32.7
Secondary (%)	15.0
Tertiary (%)	52.3
Gender	2001
Literacy Rate (%)	
Male	96.6
Female	93.7
Gross Enrolment Ratio (%)	
Male	97.9
Female	96.0
Sex Ratio (F/M) (per 1000)	1,094
Child Sex Ratio (F/M) (per 1000)	971
Age at Marriage (years)	
Male	27.6
Female	23.2
Work Participation Rate (%)	
Male	47.6
Female	13.2
Crime Against Women (per lakh female population)	106
Employment	2001
Work Participation Rate (%)	29.7
Cultivators Workers (%)	13.5
Agricultural Labourers (%)	220
Workers in Household (%)	2.5
Other Workers (%)	64
Household Status	2001
Households with Pucca House (%)	75.1
Households with Access to	
Electricity (%)	71.6
Water Closet Latrine	56.7
Water within 100 Metre Distance	88.9
Infrastructure	2001
Area Served per Post Office (sq. km.)	8.5
Population Served per Post Office (no.)	3,947
Telephone Connections per sq. km.	71
Telephone per 1000 Population	87
Road Length per 100 sq. km.	43

Alappuzha

Indices	2001	
Human Development Index (HDI)	0.794	
HDI Rank	4	
Gender Related Development Index (GDI)	0.777	
GDI Rank	1	
Index of Deprivation (overall)	29.6	
Scheduled Caste	45.9	
Scheduled Tribe	40.1	
Others	27.7	
ID (overall) Rank	6	
Population	1991	2001
Population Size (lakhs)	20.01	21.05
Share of State's Population (%)	6.9	6.6
Area (sq. km.)	1414	
Share of State's Area (%)	3.6	
Urban Population (%)	30.46	29.39
Density of Population (per sq. km.)	1,415	1,496
Share of SC Population (%)	6.6	6.4
Share of ST Population (%)	0.9	0.9
Health	2001	
Infant Mortality Rate (per 1000 births)	8	
Life Expectancy at Birth (years)	77.1	
Crude Birth Rate (per 1000 pop.)	15.2	
Total Fertility Rate (per woman)	1.5	
Full Antenatal Care (%)	93.1	
Institutional Deliveries		
Public (%)	54.4	
Private (%)	45.5	
Complete Immunisation (%)	97.4	
Low Birth Weight (%)	12.0	
Suicide Rate (per lakh population)	25.3	
Number of Beds (per lakh population)	207	
Education	1991	2001
Literacy Rate (%)	93.9	93.7
Literacy Rate among SC (%)	89.1	
Literacy Rate among ST (%)	74.5	
Gross Enrolment Ratio (%)	96.8	
Cohort Retention Rate to Std. 10 (%)	95.9	
Student-Teacher Ratio	30	28
No. of Female Teachers to Total (%)	74	80
Schools having Pucca Buildings (%)	84.0	

District Information	2005
No. of Block Panchayat	12
No. of Grama Panchayat	73
No. of Villages	91
No. of Municipalities	5
No. of Corporations	Nil
Economy	2001
Real per capita Income (PPP\$)	2,989
Share of Net State Domestic Product	
Primary (%)	16.2
Secondary (%)	28.9
Tertiary (%)	55.0
Gender	2001
Literacy Rate (%)	
Male	96.4
Female	91.1
Gross Enrolment Ratio (%)	
Male	97.6
Female	96.0
Sex Ratio (F/M) (per 1000)	1,079
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	28.1
Female	22.9
Work Participation Rate (%)	
Male	49.7
Female	20.2
Crime Against Women (per lakh female population)	31
Employment	2001
Work Participation Rate (%)	34.4
Cultivators Workers (%)	3.6
Agricultural Labourers (%)	14.1
Workers in Household (%)	7.1
Other Workers (%)	75.3
Household Status	2001
Households with Pucca House (%)	78.6
Households with Access to	
Electricity (%)	74.6
Water Closet Latrine	58.0
Water within 100 Metre Distance	85.6
Infrastructure	2001
Area Served per Post Office (sq. km.)	4.8
Population Served per Post Office (no.)	7,112
Telephone Connections per sq. km.	166
Telephone per 1000 Population	129
Road Length per 100 sq. km.	99.6

Kottayam

Indices	2001	
Human Development Index (HDI)	0.796	
HDI Rank	2	
Gender Related Development Index (GDI)	0.765	
GDI Rank	4	
Index of Deprivation (overall)	25.1	
Scheduled Caste	42.1	
Scheduled Tribe	43.1	
Others	23.1	
ID (overall) Rank	3	
Population	1991	2001
Population Size (lakhs)	18.28	19.53
Share of State's Population (%)	6.3	6.1
Area (sq. km.)	2,203	
Share of State's Area (%)	5.7	
Urban Population (%)	17.55	15.35
Density of Population (per sq. km.)	830	722
Share of SC Population (%)	4.7	4.8
Share of ST Population (%)	5.6	5.0
Health	2001	
Infant Mortality Rate (per 1000 births)	12	
Life Expectancy at Birth (years)	75.6	
Crude Birth Rate (per 1000 pop.)	15.6	
Total Fertility Rate (per woman)	1.6	
Full Antenatal Care (%)	91.9	
Institutional Deliveries		
Public (%)	40.7	
Private (%)	59.2	
Complete Immunisation (%)	79.1	
Low Birth Weight (%)	18.0	
Suicide Rate (per lakh population)	26.3	
Number of Beds (per lakh population)	189	
Education	1991	2001
Literacy Rate (%)	95.7	95.9
Literacy Rate among SC (%)	90.3	
Literacy Rate among ST (%)	88.7	
Gross Enrolment Ratio (%)	97.0	
Cohort Retention Rate to Std. 10 (%)	84.5	
Student-Teacher Ratio	28	26
No. of Female Teachers to Total (%)	71	79
Schools having Pucca Buildings (%)	93.2	

District Information	2005
No. of Block Panchayat	11
No. of Grama Panchayat	74
No. of Villages	95
No. of Municipalities	4
No. of Corporations	NIL
Economy	2001
Real per capita Income (PPP\$)	3,226
Share of Net State Domestic Product	
Primary (%)	23.8
Secondary (%)	18.0
Tertiary (%)	58.1
Gender	2001
Literacy Rate (%)	
Male	97.4
Female	94.5
Gross Enrolment Ratio (%)	
Male	97.1
Female	96.9
Sex Ratio (F/M) (per 1000)	1,025
Child Sex Ratio (F/M) (per 1000)	971
Age at Marriage (years)	
Male	28.2
Female	24.4
Work Participation Rate (%)	
Male	54.4
Female	13.9
Crime Against Women (per lakh female population)	28
Employment	2001
Work Participation Rate (%)	32.9
Cultivators Workers (%)	24.5
Agricultural Labourers (%)	41.7
Workers in Household (%)	10.0
Other Workers (%)	23.8
Household Status	2001
Households with Pucca House (%)	78.2
Households with Access to	
Electricity (%)	77.7
Water Closet Latrine	66.2
Water within 100 Metre Distance	84.9
Infrastructure	2001
Area Served per Post Office (sq. km.)	5.4
Population Served per Post Office (no.)	4,751
Telephone Connections per sq. km.	18
Telephone per 1000 Population	79
Road Length per 100 sq. km.	98.7

Idukki

Indices	2001	
Human Development Index (HDI)	0.754	
HDI Rank	12	
Gender Related Development Index (GDI)	0.742	
GDI Rank	11	
Index of Deprivation (overall)	42.7	
Scheduled Caste	40.8	
Scheduled Tribe	65.3	
Others	40.9	
ID (overall) Rank	13	
Population	1991	2001
Population Size (lakhs)	10.78	11.29
Share of State's Population (%)	3.7	3.6
Area (sq. km.)	5,019	
Share of State's Area (%)	12.9	
Urban Population (%)	4.72	5.07
Density of Population (per sq. km.)	215	252
Share of SC Population (%)	5.4	5.1
Share of ST Population (%)	15.7	14.0
Health	2001	
Infant Mortality Rate (per 1000 births)	20	
Life Expectancy at Birth (years)	72.4	
Crude Birth Rate (per 1000 pop.)	17	
Total Fertility Rate (per woman)	1.6	
Full Antenatal Care (%)	82.1	
Institutional Deliveries		
Public (%)	25.4	
Private (%)	74.5	
Complete Immunisation (%)	90.8	
Low Birth Weight (%)	15	
Suicide Rate (per lakh population)	51.7	
Number of Beds (per lakh population)	96	
Education	1991	2001
Literacy Rate (%)	86.9	88.6
Literacy Rate among SC (%)	72.7	
Literacy Rate among ST (%)	62.8	
Gross Enrolment Ratio (%)	86.1	
Cohort Retention Rate to Std. 10 (%)	77.2	
Student-Teacher Ratio	33	27
No. of Female Teachers to Total (%)	62	67
Schools having Pucca Buildings (%)	75.8	

District Information	2005
No. of Block Panchayat	8
No. of Grama Panchayat	51
No. of Villages	64
No. of Municipalities	1
No. of Corporations	Nil
Economy	2001
Real per capita Income (PPP\$)	3.484
Share of Net State Domestic Product	
Primary (%)	55.8
Secondary (%)	11.1
Tertiary (%)	33.1
Gender	2001
Literacy Rate (%)	
Male	92.1
Female	85
Gross Enrolment Ratio (%)	
Male	87.8
Female	84.4
Sex Ratio (F/M) (per 1000)	999
Child Sex Ratio (F/M) (per 1000)	971
Age at Marriage (years)	
Male	25.8
Female	23.0
Work Participation Rate (%)	
Male	58.4
Female	28.1
Crime Against Women (per lakh female population)	61
Employment	2001
Work Participation Rate (%)	43.3
Cultivators Workers (%)	21.2
Agricultural Labourers (%)	27.0
Workers in Household (%)	1.4
Other Workers (%)	50.4
Household Status	2001
Households with Pucca House (%)	60
Households with Access to	
Electricity (%)	56.8
Water Closet Latrine	47.9
Water within 100 Metre Distance	70.7
Infrastructure	2001
Area Served per Post Office (sq. km.)	17.1
Population Served per Post Office (no.)	3,851
Telephone Connections per sq. km.	48
Telephone per 1000 Population	80
Road Length per 100 sq. km.	33.3

Ernakulam

Indices	2001	
Human Development Index (HDI)	0.801	
HDI Rank	1	
Gender Related Development Index (GDI)	0.775	
GDI Rank	2	
Index of Deprivation (overall)	15.5	
Scheduled Caste	29.3	
Scheduled Tribe	37.2	
Others	14.0	
ID (overall) Rank	1	
Population	1991	2001
Population Size (lakhs)	28.17	30.98
Share of State's Population (%)	9.7	9.7
Area (sq. km)	2,407	
Share of State's Area (%)	6.2	
Urban Population (%)	48.74	47.65
Density of Population (per sq. km.)	1,170	1,050
Share of SC Population (%)	8.4	8.4
Share of ST Population (%)	1.5	2.8
Health	2001	
Infant Mortality Rate (per 1000 births)	11	
Life Expectancy at Birth (years)	75.9	
Crude Birth Rate (per 1000 pop.)	15.7	
Total Fertility Rate (per woman)	1.5	
Full Antenatal Care (%)	89.6	
Institutional Deliveries		
Public (%)	29.1	
Private (%)	70.8	
Complete Immunisation (%)	93.4	
Low Birth Weight (%)	18	
Suicide Rate (per lakh population)	24.4	
Number of Beds (per lakh population)	150	
Education	1991	2001
Literacy Rate (%)	92.4	93.4
Literacy Rate among SC (%)	82.4	
Literacy Rate among ST (%)	77.0	
Gross Enrolment Ratio (%)	99.1	
Cohort Retention Rate to Std. 10 (%)	91.0	
Student-Teacher Ratio	29	28
No. of Female Teachers to Total (%)	75	81
Schools having Pucca Buildings (%)	99.2	

District Information	2005
No. of Block Panchayat	15
No. of Grama Panchayat	88
No. of Villages	117
No. of Municipalities	8
No. of Corporations	1
Economy	2001
Real per capita Income (PPP\$)	3,646
Share of Net State Domestic Product	
Primary (%)	18.1
Secondary (%)	28.0
Tertiary (%)	53.8
Gender	2001
Literacy Rate (%)	
Male	96.0
Female	91.0
Gross Enrolment Ratio (%)	
Male	100.0
Female	98.2
Sex Ratio (F/M) (per 1000)	1,017
Child Sex Ratio (F/M) (per 1000)	952
Age at Marriage (years)	
Male	28.5
Female	23.7
Work Participation Rate (%)	
Male	55.4
Female	17.1
Crime Against Women (per lakh female population)	43
Employment	2001
Work Participation Rate (%)	36.1
Cultivators Workers (%)	5.2
Agricultural Labourers (%)	8.0
Workers in Household (%)	2.7
Other Workers (%)	84.1
Household Status	2001
Households with Pucca House (%)	92.3
Households with Access to	
Electricity (%)	84.9
Water Closet Latrine	78.2
Water within 100 Metre Distance	91.4
Infrastructure	2001
Area Served per Post Office (sq. km.)	6.1
Population Served per Post Office (no.)	7,883
Telephone Connections per sq. km.	110
Telephone per 1000 Population	125
Road Length per 100 sq. km.	90.7

Thrissur

Indices	2001	
Human Development Index (HDI)	0.794	
HDI Rank	5	
Gender Related Development Index (GDI)	0.766	
GDI Rank	3	
Index of Deprivation (overall)	24.7	
Scheduled Caste	42	
Scheduled Tribe	37.5	
Others	21.9	
ID (overall) Rank	2	
Population	1991	2001
Population Size (lakhs)	27.37	29.75
Share of State's Population (%)	9.4	9.3
Area (sq. km.)	3,032	
Share of State's Area (%)	7.8	
Urban Population (%)	26.31	28.21
Density of Population (per sq. km.)	903	981
Share of SC Population (%)	11.6	11.3
Share of ST Population (%)	1.3	1.3
Health	2001	
Infant Mortality Rate (per 1000 births)	9	
Life Expectancy at Birth (years)	76.4	
Crude Birth Rate (per 1000 pop.)	16.1	
Total Fertility Rate (per woman)	1.6	
Full Antenatal Care (%)	89.3	
Institutional Deliveries		
Public (%)	28.5	
Private (%)	71.4	
Complete Immunisation (%)	90.5	
Low Birth Weight (%)	13	
Suicide Rate (per lakh population)	34.3	
Number of Beds (per lakh population)	154	
Education	1991	2001
Literacy Rate (%)	90.2	92.6
Literacy Rate among SC (%)	78.8	
Literacy Rate among ST (%)	51.4	
Gross Enrolment Ratio (%)	101.4	
Cohort Retention Rate to Std. 10 (%)	79.0	
Student-Teacher Ratio	31	30
No. of Female Teachers to Total (%)	78	85
Schools having Pucca Buildings (%)	90.7	

District Information	2005
No. of Block Panchayat	17
No. of Grama Panchayat	92
No. of Villages	151
No. of Municipalities	6
No. of Corporations	1
Economy	2001
Real per capita Income (PPP\$)	3,117
Share of Net State Domestic Product	
Primary (%)	17.8
Secondary (%)	26.0
Tertiary (%)	56.2
Gender	2001
Literacy Rate (%)	
Male	95.5
Female	89.9
Gross Enrolment Ratio (%)	
Male	102.1
Female	100.7
Sex Ratio (F/M) (per 1000)	1,092
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	29.1
Female	22.4
Work Participation Rate (%)	
Male	50.8
Female	15.1
Crime Against Women (per lakh female population)	47
Employment	2001
Work Participation Rate (%)	32.2
Cultivators Workers (%)	5.5
Agricultural Labourers (%)	11.4
Workers in Household (%)	5.1
Other Workers (%)	78.1
Household Status	2001
Households with Pucca House (%)	68.1
Households with Access to	
Electricity (%)	73.3
Water Closet Latrine	75.2
Water within 100 Metre Distance	92.0
Infrastructure	2001
Area Served per Post Office (sq. km.)	6.2
Population Served per Post Office (no.)	6,084
Telephone Connections per sq. km.	65
Telephone per 1000 Population	64
Road Length per 100 sq. km.	52.3

Palakkad

Indices	2001	
Human Development Index (HDI)	0.761	
HDI Rank	10	
Gender Related Development Index (GDI)	0.743	
GDI Rank	10	
Index of Deprivation (overall)	40.4	
Scheduled Caste	52.9	
Scheduled Tribe	65.3	
Others	37.1	
ID (overall) Rank	12	
Population	1991	2001
Population Size (lakhs)	23.82	26.17
Share of State's Population (%)	8.2	8.2
Area (sq. km.)	4,480	
Share of State's Area (%)	11.5	
Urban Population (%)	15.72	13.62
Density of Population (per sq. km.)	532	584
Share of SC Population (%)	13.1	13.8
Share of ST Population (%)	11.1	10.9
Health	2001	
Infant Mortality Rate (per 1000 births)	11	
Life Expectancy at Birth (years)	76.1	
Crude Birth Rate (per 1000 pop.)	17.3	
Total Fertility Rate (per woman)	1.8	
Full Antenatal Care (%)	86.2	
Institutional Deliveries		
Public (%)	30.6	
Private (%)	69.3	
Complete Immunisation (%)	75.1	
Low Birth Weight (%)	16	
Suicide Rate (per lakh population)	33.6	
Number of Beds (per lakh population)	94	
Education	1991	2001
Literacy Rate (%)	81.3	84.3
Literacy Rate among SC (%)	67.2	
Literacy Rate among ST (%)	34.9	
Gross Enrolment Ratio (%)	99.5	
Cohort Retention Rate to Std. 10 (%)	79.7	
Student-Teacher Ratio	34	30
No. of Female Teachers to Total (%)	65	69
Schools having Pucca Buildings (%)	87.9	

District Information	2005
No. of Block Panchayat	13
No. of Grama Panchayat	90
No. of Villages	156
No. of Municipalities	4
No. of Corporations	Nil
Economy	2001
Real per capita Income (PPP\$)	2,513
Share of Net State Domestic Product	
Primary (%)	25.3
Secondary (%)	19.8
Tertiary (%)	55.0
Gender	2001
Literacy Rate (%)	
Male	89.7
Female	79.3
Gross Enrolment Ratio (%)	
Male	100.1
Female	98.9
Sex Ratio (F/M) (per 1000)	1,068
Child Sex Ratio (F/M) (per 1000)	971
Age at Marriage (years)	
Male	27.3
Female	20.9
Work Participation Rate (%)	
Male	52.2
Female	21.1
Crime Against Women (per lakh female population)	31
Employment	2001
Work Participation Rate (%)	36.2
Cultivators Workers (%)	9.1
Agricultural Labourers (%)	33.7
Workers in Household (%)	3.3
Other Workers (%)	53.9
Household Status	2001
Households with Pucca House (%)	51.1
Households with Access to	
Electricity (%)	60.3
Water Closet Latrine	57.1
Water within 100 Metre Distance	82.8
Infrastructure	2001
Area Served per Post Office (sq. km.)	9.8
Population Served per Post Office (no.)	5,739
Telephone Connections per sq. km.	36
Telephone per 1000 Population	62
Road Length per 100 sq. km.	36.8

Malappuram

Indices	2001	
Human Development Index (HDI)	0.749	
HDI Rank	14	
Gender Related Development Index (GDI)	0.689	
GDI Rank	14	
Index of Deprivation (overall)	28.6	
Scheduled Caste	46.2	
Scheduled Tribe	56.8	
Others	26.5	
ID (overall) Rank	5	
Population	1991	2001
Population Size (lakhs)	30.96	36.30
Share of State's Population (%)	10.6	11.4
Area (sq. km.)	3,550	
Share of State's Area (%)	9.1	
Urban Population (%)	9.12	9.81
Density of Population (per sq. km.)	872	1,022
Share of SC Population (%)	8.9	9.1
Share of ST Population (%)	3.3	3.4
Health	2001	
Infant Mortality Rate (per 1000 births)	10	
Life Expectancy at Birth (years)	75.6	
Crude Birth Rate (per 1000 pop.)	22.4	
Total Fertility Rate (per woman)	2.4	
Full Antenatal Care (%)	78.8	
Institutional Deliveries		
Public (%)	31.4	
Private (%)	68.5	
Complete Immunisation (%)	59.8	
Low Birth Weight (%)	17	
Suicide Rate (per lakh population)	13.3	
Number of Beds (per lakh population)	71	
Education	1991	2001
Literacy Rate (%)	87.9	88.6
Literacy Rate among SC (%)	79.0	
Literacy Rate among ST (%)	43.9	
Gross Enrolment Ratio (%)	96.8	
Cohort Retention Rate to Std. 10 (%)	84.9	
Student-Teacher Ratio	36	31
No. of Female Teachers to Total (%)	56	57
Schools having Pucca Buildings (%)		

District Information	2005
No. of Block Panchayat	14
No. of Grama Panchayat	100
No. of Villages	135
No. of Municipalities	5
No. of Corporations	Nil
Economy	2001
Real per capita Income (PPP\$)	1,881
Share of Net State Domestic Product	
Primary (%)	26.6
Secondary (%)	17.4
Tertiary (%)	56.0
Gender	2001
Literacy Rate (%)	
Male	91.5
Female	86
Gross Enrolment Ratio (%)	
Male	97.7
Female	95.9
Sex Ratio (F/M) (per 1000)	1,063
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	24.7
Female	18.7
Work Participation Rate (%)	
Male	42.8
Female	6.6
Crime Against Women (per lakh female population)	45
Employment	2001
Work Participation Rate (%)	24.1
Cultivators Workers (%)	6.5
Agricultural Labourers (%)	17.8
Workers in Household (%)	1.9
Other Workers (%)	73.8
Household Status	2001
Households with Pucca House (%)	68.1
Households with Access to	
Electricity (%)	63.8
Water Closet Latrine	76.8
Water within 100 Metre Distance	90.4
Infrastructure	2001
Area Served per Post Office (sq. km.)	8.1
Population Served per Post Office (no.)	8,286
Telephone Connections per sq. km.	69
Telephone per 1000 Population	149
Road Length per 100 sq. km.	51.5

Kozhikode

Indices	2001	
Human Development Index (HDI)	0.781	
HDI Rank	8	
Gender Related Development Index (GDI)	0.730	
GDI Rank	13	
Index of Deprivation (overall)	28.3	
Scheduled Caste	48.8	
Scheduled Tribe	50.9	
Others	26.6	
ID (overall) Rank	4	
Population	1991	2001
Population Size (lakhs)	26.20	28.78
Share of State's Population (%)	9.0	9.0
Area (sq. km.)	2344	
Share of State's Area (%)	6.0	
Urban Population (%)	38.34	38.25
Density of Population (per sq. km.)	1,118	1,228
Share of SC Population (%)	6.4	6.4
Share of ST Population (%)	1.7	1.6
Health	2001	
Infant Mortality Rate (per 1000 births)	12	
Life Expectancy at Birth (years)	75.4	
Crude Birth Rate (per 1000 pop.)	17.4	
Total Fertility Rate (per woman)	1.7	
Full Antenatal Care (%)	93.1	
Institutional Deliveries		
Public (%)	54.3	
Private (%)	45.6	
Complete Immunisation (%)	90.9	
Low Birth Weight (%)	17.0	
Suicide Rate (per lakh population)	23.3	
Number of Beds (per lakh population)	210	
Education	1991	2001
Literacy Rate (%)	91.1	92.5
Literacy Rate among SC (%)	57.1	
Literacy Rate among ST (%)	52.4	
Gross Enrolment Ratio (%)	98.7	
Cohort Retention Rate to Std. 10 (%)	88.3	
Student-Teacher Ratio	30	26
No. of Female Teachers to Total (%)	48	51
Schools having Pucca Buildings (%)	79.3	

District Information	2005
No. of Block Panchayat	12
No. of Grama Panchayat	77
No. of Villages	117
No. of Municipalities	2
No. of Corporations	1
Economy	2001
Real per capita Income (PPP\$)	2,858
Share of Net State Domestic Product	
Primary (%)	23.2
Secondary (%)	21.6
Tertiary (%)	55.2
Gender	2001
Literacy Rate (%)	
Male	96.3
Female	88.9
Gross Enrolment Ratio (%)	
Male	99.1
Female	98.3
Sex Ratio (F/M) (per 1000)	1,058
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	26.7
Female	20.6
Work Participation Rate (%)	
Male	48.8
Female	8.1
Crime Against Women (per lakh female population)	54
Employment	2001
Work Participation Rate (%)	27.9
Cultivators Workers (%)	3.4
Agricultural Labourers (%)	8.2
Workers in Household (%)	1.8
Other Workers (%)	86.6
Household Status	2001
Households with Pucca House (%)	71.8
Households with Access to	
Electricity (%)	64.2
Water Closet Latrine	72.4
Water within 100 Metre Distance	88.8
Infrastructure	2001
Area Served per Post Office (sq. km.)	5.7
Population Served per Post Office (no.)	6,969
Telephone Connections per sq. km.	96
Telephone per 1000 Population	93
Road Length per 100 sq. km.	58.1

Wayanad

Indices	2001	
Human Development Index (HDI)	0.753	
HDI Rank	13	
Gender Related Development Index (GDI)	0.736	
GDI Rank	12	
Index of Deprivation (overall)	46.3	
Scheduled Caste	51.5	
Scheduled Tribe	66.0	
Others	41.6	
ID (overall) Rank	14	
Population	1991	2001
Population Size (lakhs)	6.72	7.87
Share of State's Population (%)	2.3	2.5
Area (sq. km.)	2,131	
Share of State's Area (%)	5.5	
Urban Population (%)	3.41	3.76
Density of Population (per sq. km.)	315	369
Share of SC Population (%)	1.0	1.1
Share of ST Population (%)	35.8	37.4
Health	2001	
Infant Mortality Rate (per 1000 births)	22	
Life Expectancy at Birth (years)	73.5	
Crude Birth Rate (per 1000 pop.)	19.5	
Total Fertility Rate (per woman)	2.0	
Full Antenatal Care (%)	90.4	
Institutional Deliveries		
Public (%)	54.2	
Private (%)	45.7	
Complete Immunisation (%)	82.3	
Low Birth Weight (%)	30	
Suicide Rate (per lakh population)	46.7	
Number of Beds (per lakh population)	122	
Education	1991	2001
Literacy Rate (%)	82.7	85.5
Literacy Rate among SC (%)	75.3	
Literacy Rate among ST (%)	50.6	
Gross Enrolment Ratio (%)	94.9	
Cohort Retention Rate to Std. 10 (%)	74.3	
Student-Teacher Ratio	36	30
No. of Female Teachers to Total (%)	53	57
Schools having Pucca Buildings (%)	59.4	

District Information	2005
No. of Block Panchayat	3
No. of Grama Panchayat	25
No. of Villages	49
No. of Municipalities	1
No. of Corporations	Nil
Economy	2001
Real per capita Income (PPP\$)	2,909
Share of Net State Domestic Product	
Primary (%)	51.3
Secondary (%)	7.1
Tertiary (%)	41.6
Gender	2001
Literacy Rate (%)	
Male	90.3
Female	80.8
Gross Enrolment Ratio (%)	
Male	95.3
Female	94.6
Sex Ratio (F/M) (per 1000)	1,000
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	25.6
Female	20.5
Work Participation Rate (%)	
Male	55.7
Female	22.8
Crime Against Women (per lakh female population)	74
Employment	2001
Work Participation Rate (%)	39.3
Cultivators Workers (%)	16.9
Agricultural Labourers (%)	30.6
Workers in Household (%)	0.9
Other Workers (%)	51.6
Household Status	2001
Households with Pucca House (%)	60.4
Households with Access to	
Electricity (%)	42.0
Water Closet Latrine	49.2
Water within 100 Metre Distance	79.0
Infrastructure	2001
Area Served per Post Office (sq. km.)	19.3
Population Served per Post Office (no.)	4,825
Telephone Connections per sq. km.	108
Telephone per 1000 Population	110
Road Length per 100 sq. km.	24.2

Kannur

Indices	2001	
Human Development Index (HDI)	0.783	
HDI Rank	7	
Gender Related Development Index (GDI)	0.755	
GDI Rank	7	
Index of Deprivation (overall)	29.7	
Scheduled Caste	43.8	
Scheduled Tribe	57.7	
Others	28.7	
ID (overall) Rank	7	
Population	1991	2001
Population Size (lakhs)	22.52	24.12
Share of State's Population (%)	7.7	7.6
Area (sq. km.)	2,966	
Share of State's Area (%)	7.6	
Urban Population (%)	50.87	50.46
Density of Population (per sq. km.)	759	813
Share of SC Population (%)	3.2	3.2
Share of ST Population (%)	5.7	5.5
Health	2001	
Infant Mortality Rate (per 1000 births)	12	
Life Expectancy at Birth (years)	75.6	
Crude Birth Rate (per 1000 pop.)	16.6	
Total Fertility Rate (per woman)	1.7	
Full Antenatal Care (%)		
Institutional Deliveries	90.2	
Public (%)	35.9	
Private (%)	64.0	
Complete Immunisation (%)	84.7	
Low Birth Weight (%)	15	
Suicide Rate (per lakh population)	46.7	
Number of Beds (per lakh population)	127	
Education	1991	2001
Literacy Rate (%)	91.5	92.8
Literacy Rate among SC (%)	85.1	
Literacy Rate among ST (%)	58.6	
Gross Enrolment Ratio (%)	101.0	
Cohort Retention Rate to Std. 10 (%)	82.8	
Student-Teacher Ratio	28	24
No. of Female Teachers to Total (%)	53	58
Schools having Pucca Buildings (%)	80.6	

District Information	2005
No. of Block Panchayat	9
No. of Grama Panchayat	81
No. of Villages	129
No. of Municipalities	6
No. of Corporations	Nil
Economy	2001
Real per capita Income (PPP\$)	2,719
Share of Net State Domestic Product	
Primary (%)	24.2
Secondary (%)	23.5
Tertiary (%)	52.3
Gender	2001
Literacy Rate (%)	
Male	96.4
Female	89.5
Gross Enrolment Ratio (%)	
Male	101.9
Female	100.2
Sex Ratio (F/M) (per 1000)	1,090
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	28.4
Female	20.8
Work Participation Rate (%)	
Male	50.0
Female	15.2
Crime Against Women (per lakh female population)	43
Employment	2001
Work Participation Rate (%)	31.8
Cultivators Workers (%)	6.3
Agricultural Labourers (%)	13.5
Workers in Household (%)	2.5
Other Workers (%)	77.7
Household Status	2001
Households with Pucca House (%)	63.5
Households with Access to	
Electricity (%)	67.0
Water Closet Latrine	73.0
Water within 100 Metre Distance	90.2
Infrastructure	2001
Area Served per Post Office (sq. km.)	7.8
Population Served per Post Office (no.)	6,348
Telephone Connections per sq. km.	164
Telephone per 1000 Population	111
Road Length per 100 sq. km.	59.1

Kasaragod

Indices	2001	
Human Development Index (HDI)	0.760	
HDI Rank	11	
Gender Related Development Index (GDI)	0.746	
GDI Rank	8	
Index of Deprivation (overall)	37.6	
Scheduled Caste	62.7	
Scheduled Tribe	61.3	
Others	34.1	
ID (overall) Rank	10	
Population	1991	2001
Population Size (lakhs)	10.72	12.03
Share of State's Population (%)	3.7	3.8
Area (sq. km.)	1,992	
Share of State's Area (%)	5.1	
Urban Population (%)	16.45	19.42
Density of Population (per sq. km.)	538	604
Share of SC Population (%)	2.8	2.9
Share of ST Population (%)	9.1	8.3
Health	2001	
Infant Mortality Rate (per 1000 births)	10	
Life Expectancy at Birth (years)	75.7	
Crude Birth Rate (per 1000 pop.)	18.9	
Total Fertility Rate (per woman)	1.9	
Full Antenatal Care (%)	75.4	
Institutional Deliveries		
Public (%)	11.1	
Private (%)	88.8	
Complete Immunisation (%)	87.4	
Low Birth Weight (%)	15	
Suicide Rate (per lakh population)	24.0	
Number of Beds (per lakh population)	77	
Education	1991	2001
Literacy Rate (%)	82.5	85.2
Literacy Rate among SC (%)	63.6	
Literacy Rate among ST (%)	64.4	
Gross Enrolment Ratio (%)	94.0	
Cohort Retention Rate to Std. 10 (%)	72.3	
Student-Teacher Ratio	35	28
No. of Female Teachers to Total (%)	43	49
Schools having Pucca Buildings (%)	72.8	

District Information	2005
No. of Block Panchayat	4
No. of Grama Panchayat	39
No. of Villages	75
No. of Municipalities	2
No. of Corporations	Nil
Economy	2001
Real per capita Income (PPP\$)	2,777
Share of Net State Domestic Product	
Primary (%)	30.3
Secondary (%)	25
Tertiary (%)	44.8
Gender	2001
Literacy Rate (%)	
Male	90.8
Female	79.8
Gross Enrolment Ratio (%)	
Male	95.2
Female	92.7
Sex Ratio (F/M) (per 1000)	1,047
Child Sex Ratio (F/M) (per 1000)	962
Age at Marriage (years)	
Male	27.6
Female	20.6
Work Participation Rate (%)	
Male	49.3
Female	20.8
Crime Against Women (per lakh female population)	49
Employment	2001
Work Participation Rate (%)	34.7
Cultivators Workers (%)	4.8
Agricultural Labourers (%)	10.0
Workers in Household (%)	12.0
Other Workers (%)	73.2
Household Status	2001
Households with Pucca House (%)	67.9
Households with Access to	
Electricity (%)	57.0
Water Closet Latrine	54.0
Water within 100 Metre Distance	84.3
Infrastructure	2001
Area Served per Post Office (sq. km.)	8.5
Population Served per Post Office (no.)	5,120
Telephone Connections per sq. km.	22
Telephone per 1000 Population	59
Road Length per 100 sq. km.	43.3

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Kerala's development experience is cited as an example for developing countries highlighting the role of public policies in attaining high social development despite low per capita incomes. Its experience occupies an important place in the chain of intellectual events that culminated in a paradigm shift in development thinking.

The Kerala Human Development Report primarily deals with the second-generation problems of human development, such as quality. The Report critically examines the new phase of growth during the last 15 years, and its possible linkages with human development and charts out a human development-based growth strategy for the future with sustainable social development.