

**DISTRICT  
HUMAN  
DEVELOPMENT  
REPORT  
MALDA**

**DEVELOPMENT & PLANNING DEPARTMENT  
GOVERNMENT OF WEST BENGAL**

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Government of West Bengal

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GOVERNMENT OF WEST BENGAL

### **FOREWORD**

“Human Development” as a distinct concept developed in the 80s. The basic feature of our understanding of the concept is not, however, confined to abstract ideas. Just as poverty is multidimensional, so are the processes of human self realisation and social progress. It is, therefore, imperative that economic policies are so structured as to attain the twin objectives of human self realisation and social progress based on the contemporary realities as well as the aspirations of the future generations. What is again important towards attainment of these objectives is an “inclusive approach”. It is the participatory mode that is crucial to the success of the whole process of human development. This is a process that is qualitatively and substantially different from the conventional process. Human development is about people, about expanding their choices and enhancing their capabilities. It seeks to unfold opportunities for the people, particularly those living at the bottom, to live a decent, healthy and fulfilling life.

The policies and programmes of the State Government over the last three decades have been directed towards creating conditions for the people where full flowering of human capabilities becomes a reality. Efforts of the State Government have been reinforced by spontaneous and overwhelming support of the people. It is basically the involvement of the people in the development process that has significantly contributed to improvement of human development indices of the State. Our 11<sup>th</sup> Plan’s focus is also on wider participation of the people in consonance with the essence of inclusive approach—the approach that will manifest itself in the whole range of activities of the Government.

The State Government in the Development and Planning Department in partnership with the United Nations Development Programme (UNDP) and Planning Commission of India took the initiative of preparing the first Human Development Report of the State and published it in May 2004. The West Bengal Human Development Report, 2004 received wide acclaim from different cross sections of the society. It also won UN Award for its dispassionate quality of analysis and richness in content. Our initiative to prepare District Human Development Report (s) is an attempt to make an in-depth study and analysis of the quality of life of the people as well as to identify the areas where we need to intervene for enhancing their capabilities and to effectively address the grey areas.

It is a matter of great satisfaction that UNDP and the Planning Commission of India have come forward to support our initiatives. We have been able to finalise the District Human Development Reports of Malda and Bankura districts. Professor Jeta Sankritayana of the Economics Department, North Bengal University and Member, State Planning Board took the pioneering role in preparing the report of the Malda district. The report is the product of wider interactions and participation at various levels as will be evident from its approach and content. I record my deep sense of appreciation of the painstaking efforts of the entire team of officials of the Development and Planning Department in preparing this Report. I also put on record my sincere gratitude to the people’s representatives at different levels and the officials of Malda district who have contributed directly or indirectly to the process of preparing the District Human Development Report. All these efforts will, however, prove meaningful if this Report can in any way help attainment of our twin objectives - human self realisation and social progress.



[ Nirupam Sen ]



## Preface

The *Malda District Human Development Report* [DHDR] is among the first comprehensive studies to be conducted in India on human development at sub-district level. As such, it forms a model for many more human development studies of a similar kind that will be carried out subsequently in the other West Bengal districts and eventually in all districts across India. The importance of this exercise that has been jointly facilitated by UNDP and the Planning Commission as part of the mainstreaming of the human development approach through the project on *Strengthening State Plans for Human Development* lies in the potential it holds for transforming the process of development planning within the state of West Bengal and its constituent districts into one that draws in full participation from the people as ultimate stakeholders and beneficiaries in development. The *Malda DHDR* is a direct sequel to the earlier *West Bengal Human Development Report* [WBHDR] published in 2004, which identified the district of Malda as being one of the most deprived in the state in terms of human development. The choice of Malda as a location for one of the first *DHDR* exercises to be conducted in West Bengal serves to identify the most pressing developmental constraints in a district where the impact of these has been most severe. By focusing the study on Malda, a parallel effort has also been made to build the institutional capacity in the district for human development based planning at district-level. The *Malda DHDR* is thus expected to serve as the future foundation for formulating a comprehensive District Human Development Plan for Malda district.

The fifteen development blocks that compose Malda district form fundamental units for district-level planning. The statutory task of the District Planning Committee or DPC is to integrate block development plans with plans formulated at district-level by the line Departments of the State Government, and to forward the schemes and projects, as recommended by the district, to the State Planning Board for inclusion in the integrated State Plan. In West Bengal, with its strong framework of *panchayati raj* institutions [PRIs], the importance of block-level planning is enhanced by the coterminousness of respective development blocks and Panchayat Samitis. Under decentralised planning, as institutionalised in the state, the PRIs are actively involved in the planning process, right down to the formulation of basic village development plans by the Gram Panchayats and Gram Sansads. Nevertheless, despite the availability of statistical databases at block-level for several years now, little use of these is currently made in grassroots planning exercises because of the lack of equivalent technical skills. Besides data deficiencies which impede the application of human development indicators at sub-district level, existing mechanisms for collecting and handling data at district level and below suffer from various technical shortcomings. Such limitations in data and technical capabilities ultimately restrict the effectiveness of district planning, leading to persisting backwardness in several blocks and districts across West Bengal.

The *DHDR* identifies such backward regions within Malda district, in terms of basic human development attributes such as health status and educational and livelihood opportunities. However, its exploration of development situations in the district is not limited merely to the computation of the human development indexes. While identifying the current development constraints and challenges faced by Malda as a district, the *DHDR* also examines the varied regional experiences within the district in considerable detail, and identifies several emerging development trends responses that may ultimately strengthen human development planning in the future. The dialogic process followed during preparation of the *DHDR*, which has further strengthened development communication between the District Administration, the

DPC and the people of Malda district, is another notable achievement of the *DHDR* exercise that will enhance the future participation of stakeholder groups in drawing up comprehensive human development plans in the district.

Several conceptual challenges were faced inevitably, while preparing this report. Malda district occupies a complex topographic terrain comprising three micro regions, each having distinct agroecological characteristics. It is, moreover, an old region of settlement in Bengal with a recorded economic history that commences in mediaeval times. The composite population of the district thus includes several diverse cultural and ethnolinguistic communities that are at different stages of human development, and these cultural differences also reflect in the overall human development and gender development patterns of Malda district. With as many as 3701 village settlements grouped under 146 Gram Panchayats, the district is densely settled but remains largely rural in character. While the district economy continues to be dominated by agriculture, high growth rates of population accompanied by low rates of urbanisation and slow proliferation of non-farm based economic activities have deepened the livelihood crisis in Malda, leading to high persistence of human poverty. Further development constraints are placed upon the district by its proximity to the floodplains of the Ganga and the recurrence of natural calamities throughout its history. Exploration of these special-focus issues identifies further constraints that have previously impeded human development in Malda district. To mitigate these specifically, sustainable planning initiatives are required which must be designed locally. In view of such constraining features, human development planning at district and sub-district levels holds the ultimate key to the balanced regional development of Malda district and to upliftment of the rural poor in the district to desirable standards of economic equity.

The *Malda DHDR* is the ultimate outcome of a year of open consultations between administrative authorities, development agencies and stakeholder institutions representing the district, with full participation from technical experts, non-governmental organisations and the ordinary citizens of Malda district. The issues outlined in the *DHDR* and the form in which it is presented were initially outlined by a concept note prepared after thorough discussion at the inception meetings of these stakeholder groups. Following finalisation of the concept note, technical groups were formed in each of the subject areas to assist and advise the Lead Coordinator in the preparation of the *DHDR*. Overall coordination of the *DHDR* exercise was maintained by the DHDR Core Committee under the chairmanship of Shri Gautam Chakraborty, Sabhadhipati, Malda Zilla Parishad, with Shri Abhijit Choudhury, IAS, former District Magistrate, Malda District, as its initial convener. Shri Chittaranjan Das, IAS, subsequently took over this responsibility after assuming charge as District Magistrate, Malda. Shri Abdul Khaleque, IAS, Additional District Magistrate (General), as member of the Core Committee, coordinated the participation of officers and Departmental personnel from the District Administration in the *DHDR* exercise. Shri Parthasarathi Kundu, Assistant Director, Bureau of Applied Economics & Statistics, coordinated the core activities on behalf of the HDRCC, Development & Planning Department, Government of West Bengal.

Prof. Santosh Chakraborty, eminent educationist and retired Principal, Malda College, and the Assistant Inspectors for Primary & Secondary Education, Malda District, formed the consultative group for the DHDR study on Education in Malda district. Shri Amitjyoti Bhattacharya, then serving as WBCS probationer with the Malda District Administration, went out of his way to process and coordinate the study initiated by this group. The DHDR study on Health in the district was assisted by a consultative group comprising the Chief & Assistant Chief Medical Officers of Health, Malda District, Dr. Bidhan Chandra Mishra,

DCMOH; and the NGO representative from SHIS. Shri Pratyarpan Singha Roy, DPO, ICDS, coordinated this group. The consultative group for the DHDR study on Economic Livelihoods in Malda district included the Karmadhyakshas, *Matsya O Pranibikash Sthayee Samiti & Krishi O Sech Sthayee Samiti*, Malda Zilla Parishad, the District Employment Officer, and Shri Sibesh Das, NGO representative from RCHSS. Shri Suman Paul, then WBCS probationer with the Malda District Administration, made a valuable contribution to the background studies initiated by this group. Dr. Abdul Razzaque, Principal, Kaliachak College, and the CEO, Malda Wholesale Consumer's Cooperative Society, constituted the consultative group for the DHDR study of Community Diversity in Malda district, and made important contributions to the report. The consultative group for the DHDR study of Gender Situations in Malda district comprised the Karmadhakshya, *Shiksha Sthayee Samiti*, Malda Zilla Parishad, the District Social Welfare Officer, the NGO representative from SWI, and Smt. Krishna Guha, Sr.Lecturer in Sociology, Malda Women's College, Besides conducting primary gender surveys in the district, Smt. Krishna Guha also made an invaluable contribution to the *DHDR* in the form of a background paper on gender issues in the district. The DHDR consultative group for the study of Vulnerability in Malda district comprised the Secretary, Malda Zilla Parishad, Shri Samiran Roy, Executive Officer, Old Malda Municipality, the Deputy District Land & Land Reforms Officer, Malda District, and Shri Showkat Iqbal, Ph.D research scholar, North Bengal University. Shri Showkat Iqbal also contributed extensively to the study initiated by the consultative group on flood & erosion induced displacement of population from the riverine regions in the district bordering the Ganga, drawing from his earlier survey research on the problem. He also coordinated the Diara surveys that were undertaken as part of the *DHDR* exercise and contributed a background paper on the problem of vulnerability in the district.

Much of the analytic data work that supported the consultative groups was undertaken by the DHDR Data Cell, staffed by Sheik Nazmul Islam, Shri Surojit Ghosh, and Shri Krishanu Guha Majumder. Smt. Gargi Ghosh, NUNV, UNDP, acting on behalf of the HDRCC, coordinated the participatory village planning exercises initiated in selected Malda blocks in partnership with local NGOs. A large group of enthusiastic students from Malda College and Malda Women's College – too numerous to name individually – participated as volunteer investigators in the Gram Panchayat surveys and special DHDR surveys that were conducted as an integral part of the *DHDR* exercise.

Logistics and technical support for the DHDR group meetings were arranged by Shri Parthasarathi Manna, former OSD at the Development & Planning Department, on behalf of the Department of Development & Planning Department, Government of West Bengal. Shri Dibyendu Sarkar, Deputy Secretary at the Development & Planning Department, made important contributions both while steering the initial DHDR consultative meetings, and while conducting further surveys on the Health situations in the district. These added considerable richness to the DHDR study on Health in Malda district.

Members of the District Planning Committee, Malda District, participated freely in discussions on the Draft *DHDR*, contributing their long experience and intimate personal knowledge of the district to the synthesis of a potential human development approach that can be adopted in future in district planning exercises in Malda. Extensive cooperation was also received from officers of the District Administration and from Panchayat Samiti and Gram Panchayat representatives, Block Development Officers, and the members of many local NGOs, during *DHDR* project work and during discussions on the Draft *DHDR*.

Under the aegis of UNDP, a presentation on the Draft *DHDR* for Malda District was made to the UNDP Workshop on *Developing A Common Framework for Human Development based District*

*Planning*, held at Bhopal in August 2006, before a select audience of administrators and activists drawn from the states of Madhya Pradesh, Rajasthan, Chhattisgarh, Orissa and Tamil Nadu, who are closely involved in institutionalising the human development approach at district level in their respective states. The perceptive comments from this expert group helped considerably in refining the analysis and presentation of the *Malda DHDR*.

At Kolkata, the eminent members of the Empowered Committee for the SSPHD Project constantly monitored the ongoing work on the *DHDR*, enriching the analysis with their experience and perceptive comments. Shri Nirupam Sen, MIC, Development & Planning Department, took a keen personal interest in the execution of DHDR studies and was a constant source of leadership and encouragement. Prof. Nikhilesh Bhattacharya and Prof. V.K.Ramachandran, Members of the West Bengal State Planning Board, and Prof. Jayati Ghosh of Jawaharlal Nehru University and Lead Coordinator of the *WBHDR 2004*, read through draft versions of the *DHDR* and offered valuable comments. Dr. Pradip Bhattacharya, IAS, Additional Chief Secretary, Development & Planning Department, Government of West Bengal, played an instrumental role in sustaining even workflow on the *Malda DHDR*, and in maintaining coordination between the Planning Commission & UNDP, and the DHDR activities initiated at the State and district levels. Dr.K.Seetha Prabhu and Dr Suraj Prakash from UNDP, and Shri R. Sridharan, Joint Secretary (State Plans), Planning Commission, Government of India, provided invaluable conceptual support to the institutionalisation of the human development approach in the district level studies. Dr. B.P.Syam Roy, IAS, Special Secretary at the Development & Planning Department, Kolkata, steered the logistic arrangements and the deliberations of the Empowered Committee for the SSPHD Project, as its Member Secretary. ..

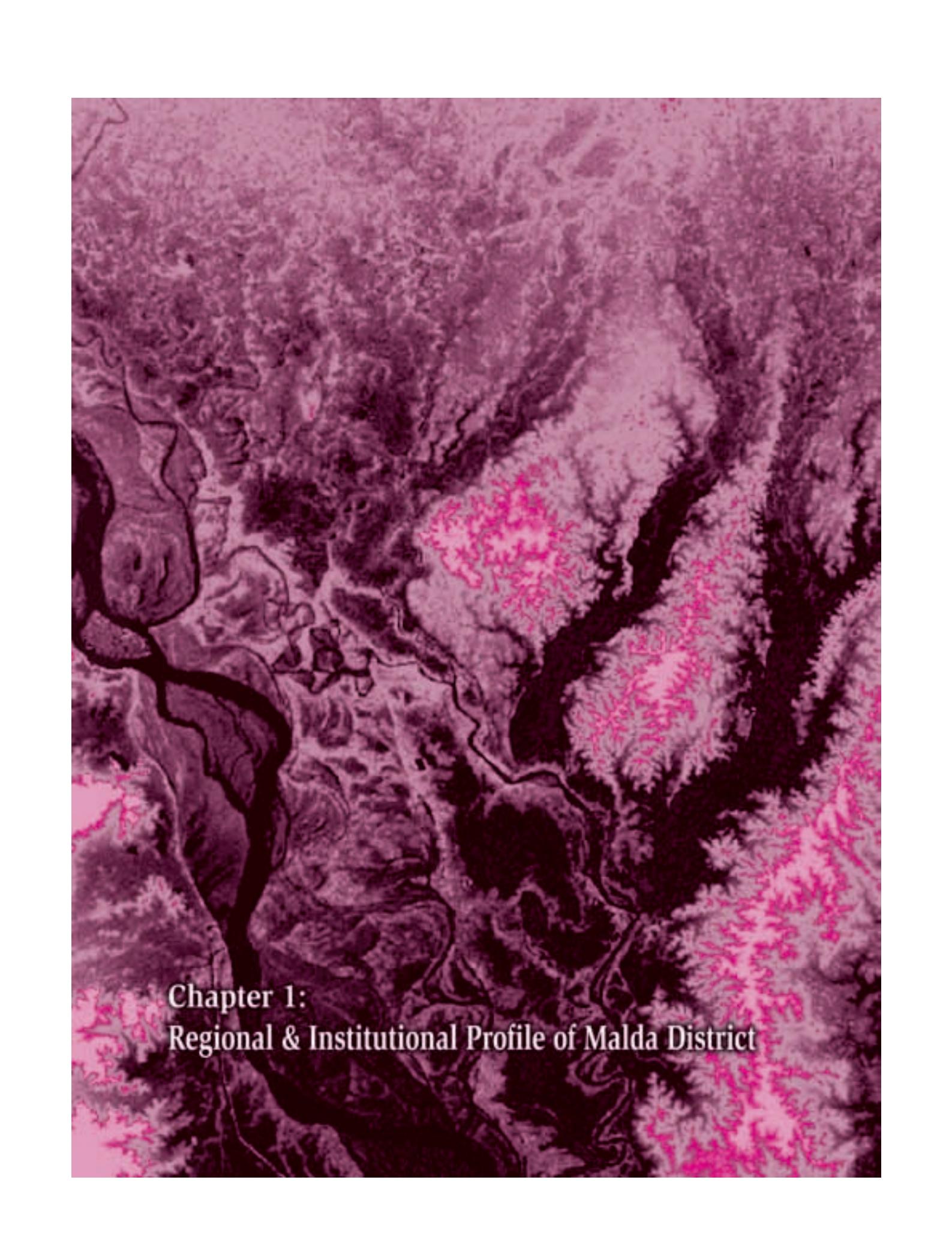
As Lead Coordinator for the Malda DHDR, I am grateful to my senior colleagues on the West Bengal State Planning Board, and to Prof.Jayati Ghosh and all members of the workgroups for the *West Bengal Human Development Report 2004*, for sharing their deep insights into the development experience of West Bengal and its constituent districts, with me from time to time. This contributed meaningfully to the analytical focus that has been achieved in the *Malda District Human Development Report*. Although challenging in conception, the work of preparing the *DHDR* carried the immense reward of building a living bridge between formal academic analysis and the development aspirations of the people in this old and historically significant region of West Bengal. It is therefore hoped that the DHDR will contribute significantly to future development and planning activities in the district of Malda.

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March 2007

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The background image is a high-angle aerial photograph of a river system. The river, which appears dark blue or black, winds its way through a landscape covered in dense, textured vegetation. The vegetation is predominantly green, with patches of pink and purple, possibly indicating different types of flowers or crops. The overall scene is a mix of natural and agricultural land. 

## Chapter 1: Regional & Institutional Profile of Malda District



## Regional & Institutional Profile of Malda District

Spreading over an area of 3733 sq.km with a population of 32.91 lakh in 2001, the district of Malda covers 4.2 percent of the total landmass of the state of West Bengal and is home to 4.1 percent of the total State population. Located between latitudes 24°40'20"N and 25°32'8"N, and longitudes 87°45'50"E to 88°28'10"E, the district is bounded to its due south by the district of Murshidabad across the river Ganga, by Bangladesh and Dakshin Dinajpur district to its east and northeast, by Uttar Dinajpur district to its direct north and by the states of Bihar to its direct west and Jharkhand across the Ganga to the southwest.

Although part of a very old settled region, Malda came into being as a separately constituted district within provincial Bengal in 1813, through an act of incorporation that amalgamated two of the southern *thanas* of erstwhile Dinajpur district, with three drawn from western Rajshahi district and four from eastern Purnea district. This act of reconstitution has since had a profound effect on the cultural landscapes of the district, giving these a richness that draws its strands from the mosaic of ethnoreligious and linguistic traditions that have thus been incorporated into the cultural traditions of Malda. Although the new district took its name from the mediaeval settlement at Maldah which, as its name would suggest, had been an important river trading port, subsequent urban growth in this region has principally taken place around the subsequent British commercial settlement of Ingrez Bazar (also Ingrezabad or Englishbazar) which was founded during the late-18<sup>th</sup> century on the *char* lands between the Ganga and Mahananda rivers. This new town has since metamorphosed into the city identified more commonly as Malda today, while the older settlement on the Mahananda north bank is now known as Old Malda. Further territorial adjustments to the borders of the district occurred during the Partition of India in 1947, when the Radcliffe award assigned several portions from its easternmost *thanas* to East Pakistan. Administrative reconstitution of the nine original *thanas* of Malda has made it a district of 15 modern-day development blocks, which have recently been regrouped into two subdivisions for administrative reasons.

## Chapter 1

However, compared to the historicity of Malda as a region, such changes are comparatively recent. The present district represents a region of great antiquity which was once the cradle of state and society within Bengal

### Malda in Historical Perspective

The composite township of Malda or Englishbazar, presently the headquarters of Malda district stands a few kilometres northwest of the ancient city of Gaur, once capital of the ancient *bhukti* or political division of Bengal known as Pundravardhan which lay on the eastern extremity of the Gupta empire. No authentic historical record for this influential region is found, however, till 607AD, when Sasanka – ruler of Vanga and former vassal of the Guptas – established independent control over the region that comprises the modern districts of Malda and Murshidabad, ruling over it from his citadel at Karnasuvarna which lay southwards of Gaur. As the power of the Guptas was on the wane by this time, Sasanka spent most of his reign expanding his new kingdom westwards, thus coming into direct internecine conflict with Harsha, king of Kanauj. At their zenith, his territorial conquests extended from Kamtapur in the northern sub-montane region to Kalinga in the south, and from the Brahmaputra river in the east to Mithila in the west. His embattled reign for about 32 years, however, proved too brief for the foundation of a lasting empire to be laid, and upon his death, the kingdom dissolved into complete anarchy during the period known to the historical record as 'Matsyanyaya' (Rule of the Fishes). To restore peace and stability in the land, the leaders of people living in the region met and elected Gopala to take over the throne. Thus in the 7<sup>th</sup> century, the foundations of the Pala dynasty were laid.

The Pala kings ruled over an extended dominion that included Bengal and many other principalities spread over northern India upto the Vindhya hills in the south, most of which were annexed to their empire during the reign of Dharmapala. During their sustained rule which lasted over several consecutive centuries, notable advances were made in the spheres of art &

architecture, education and statecraft, and the Bengal region left a permanent impress on the historical record of northern India. Since the Palas were devoted adherents of Buddhism, several large monasteries and Buddhist universities were built across their dominions which spanned present-day Bihar, West Bengal and Bangladesh, as well as a part of Jharkhand state. The ruins of one of these have recently been excavated near the banks of the Punarbhabha river at the village of Jagajibanpur in Habibpur block, within Malda district. The monasteries became renowned centres of learning, where scholars from many parts of the Buddhist world – such as Hiuen Tsang (Yuan Chwang) – arrived to partake of lessons in religion and philosophy. The ruins of palaces and temples constructed during the rule of Palas and the vast reservoirs and storage tanks excavated by them lie scattered across many parts of Malda and Dinajpur. During this period of history, the region also played a dominant economic role because of the easy access it had to the channels of riverine navigation.

After the decline of the empire during the rule of the later Palas, the southern Sena dynasty established a brief sway over parts of their dominions, including the region of Rarh and also present-day Malda. During their reign, the ancient city of Gaur was rebuilt and extended as Lakshmanawati (later Lakhnauti), becoming the hub of the Sena empire. Once again, the riverine location of this city as a major trading port on the Ganga made the region the commercial heartland of eastern India. The Senas were, however, replaced in quick succession by new Turko-Afghan rulers following the conquest of Gaur by the forces of Bakhtyar Khalji in 1205. Over much of the subsequent Turko-Afghan period, these new rulers functioned as independent Sultans, because of the inability of their erstwhile suzerains at Delhi to reassert military supremacy over the Bengal-Bihar region. The city of Lakhnauti or Gaur continued to function initially as their capital but was abandoned in 1342 by the Ilyas Shahi sultans in favour of Pandua because of major disturbances along the river course of the Ganga. Pandua then lay on the banks of the Mahananda, which was the major waterway of the sultanate at the time. However, when the Mahananda too began to veer away from the site of Pandua in the mid-15<sup>th</sup> century, Gaur was rebuilt and restored to the status of capital city by the Hussain Shahi sultans. During this

extended period of independent rule by the Bengal sultanate, when the Malda region formed the heartland of Bengal, there was considerable development of art & architecture which survive today in the ruins of Gaur and Pandua. Hussain Shah, who laid the foundations of the dynasty that subsequently bore his name, is widely regarded to have been the greatest of the Bengal sultans. His reign was characterised by peace and harmony between all religious communities, and Sri Chaitanya Deva is believed to have visited the city of Gaur during his time. As a noted patron of the liberal arts, Hussain Shah also laid the development of Bengali as a major literary language.

For a short period during the 16<sup>th</sup> century, the Karranis under Sher Shah extended their dominion over the sultanate from their citadel at Biharsharif. The power of the Hussain Shahi rulers had declined considerably by this time, following a change in the fortunes of the city of Gaur which by then had been abandoned completely by the river. Hence, Sher Shah established a new city for his *subedars* at Tandah. With the ascent of Akbar to the Mughal throne at Delhi, a new historical course was set for the ancient region of Gaur after the Mughals annexed it to their vast empire in 1576 and created the Diwani of Bengal. The centre of regional power shifted across the Ganga to Rajmahal, from where Mansingh established the Mughal *subedari* over Bengal and Todarmal brought the lands of the former sultanate under Mughal revenue settlement.

Following the demise of the independent sultanate, the regional importance of the Gaur or Malda region declined irreversibly and the city of Gaur was eventually abandoned yet once more, presumably because of the permanent shift of the river as well as a series of epidemics brought on by gradual conversion of the erstwhile riverbed to watersoaked bogland. Migration of the rich elite from Gaur to other commercially important places left only the poor agriculturists, mango-growers and cocoon-rearers behind. The balance of regional power in the new *Subah-i-Bangal* gravitated towards Murshidabad and Dhaka until the foundation of the new British trading port at Kolkata altered this imperial equation permanently. British trading and commercial interests now came to focus on the new cities of Malda and Englishbazar, from where the course of Malda as a district was recharted.

Thus despite its former glory, the district of Malda has

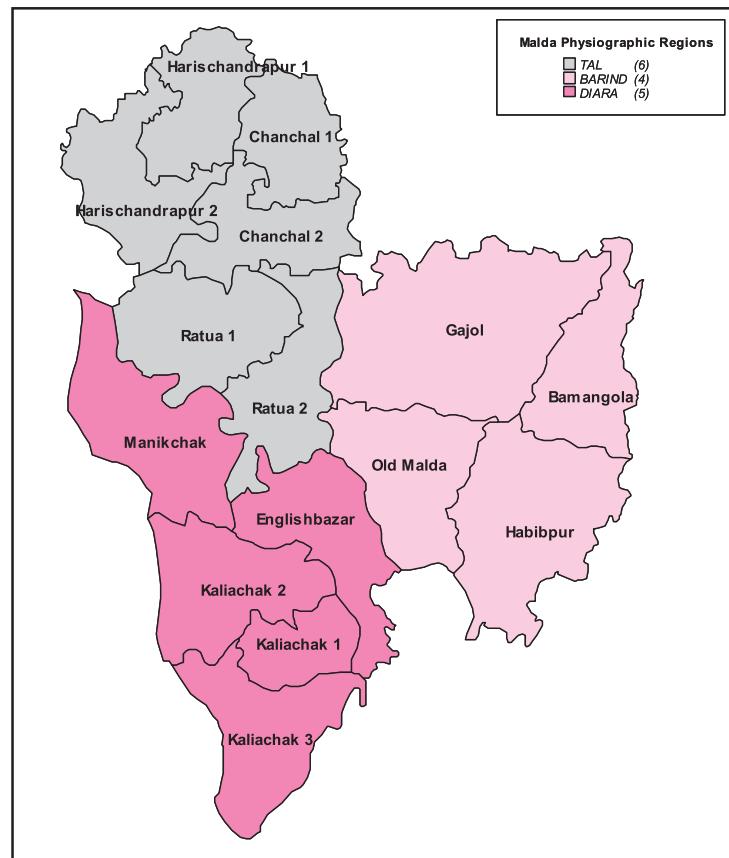
continually witnessed a series of political and geographical vicissitudes that have brought it to its present day position as the most backward district in West Bengal. The people who reside in the district at present are thus inheritors of this proud heritage as well as its modern consequences. Whatever the change in its fortunes, Malda nevertheless continues to be a key region in the modern state of West Bengal, forming the middle ground that links the more developed districts in the southern part of the state to the economically backward districts that form northern West Bengal. For this reason, the human development situations in Malda district warrant close study, since they also hold the key to the economic development of the entire region of North Bengal.

## Ecological Subregions in the District

Three broad subregions can be defined physiographically within Malda district. The region of mature alluvium that had given North Bengal its old historical name of *Varendri* or *Barendri* is known today as the Barind. This region is made up of the ancient alluvial humps that are remnants of old riverine floodplains that remained unaffected subsequently by inundation and renewed silting. Besides the eastern and northeastern fringes of the district, the Barind tract also extends into parts of Uttar and Dakshin Dinajpur and adjoining areas within Bangladesh, forming an upland rising to elevations of over 37m asl in its highest portion. The cumulative area of the Barind spanning Uttar & Dakshin Dinajpur and Malda districts in North Bengal is 1621sq.km. The major portion of this contains two sharply-rising and isolated topographic units that fall within Malda district, which collectively comprise Old Malda and Gajol blocks in the Mahananda-Tangan interfluve area, and Habibpur and Bamangola blocks in the Tangan-Punarbhava interluve, provide the best examples of the typically matured Barind. The soils of these regions are hard silty clays of a reddish hue that has developed through the accumulation of sesquioxides. Organic residues in this soil are highly decomposed, leading to nonacidic soil pH at levels as low as 6.8 in the

Barind tracts of Malda. Organic carbon content is also generally low at 0.54 percent in these Malda tracts, as a result of which overall soil fertility remains at modest levels under unirrigated conditions. Nevertheless, since the hummocky or undulating terrain in the Barind promotes a fair amount of runoff and the hard impervious clayey Barind soils permit little percolation, most of the monsoon runoff accumulates in the large natural *bils* or pools in the ravines formed by the courses of the Tangan and Punarbhava rivers, covering the lowlands here until long after the monsoon is over.

The remainder of the district covers an adjacent tract of flat lowland between the 27m and 21m contours, forming the local catchments of the Mahananda and Ganga. This lowland tract which slopes gradually from the north to south is classified into two additional physiographic regions, known locally as the *Tal* and the *Diara*. Spanning Manikchak, Kaliachak 1,2 & 3 and Englishbazar blocks within the district, the Diara is a relatively well-drained flatland formed by the fluvial deposition of newer alluvium in the transitional zone between the Barind upland and the marshy Tal tract.



The Tal is mostly composed of bog lands formed in many marshy pockets around vestigial inland drainages. The streams of this zone have switched over to new courses, leaving many dead or dying channels that only retain a waterflow during the monsoon. Consequently, the Tal is strewn with innumerable marshes, *bils* and oxbow lakes. Interbraided streams with multiple channels also occur quite commonly along the Kankhor, Kalindri,

Punarbhava and other rivers that traverse this land unit – the Kalindri, particularly, displaying an amazing capacity to meander. Because of the lack of gradient and consequently of runoff, most of the Tal tract remains submerged under considerable depths of water during the monsoon rains. Large sections of it then turn into mudbanks during the dry season, while the many marshy pockets that still remain become relatively shallow.

**Table: Comparative Regional Features of the *Tal*, *Barind* & *Diara* in Malda District**

<b>Settlement Patterns</b>							
	Area [sq.km]	2001 Inhabited Villages	2001 Total Population	2001 Male Population	2001 Female Population	2001 Population per sq.km	2001 FMR
<i>TAL</i>	1160.44	502	1078101	553229	524872	929	949
<i>BARIND</i>	1331.29	774	740872	378093	362779	557	959
<i>DIARA</i>	1161.51	366	1247080	642728	604352	1074	940
<b>Sociocultural Characteristics</b>							
	1991 % Hindu	1991 % Muslim	2001 % SC	2001 % ST	% Total Literacy	% Male Literacy	% Female Literacy
<i>TAL</i>	33.7	66.2	12.2	3.6	46.3	53.9	38.3
<i>BARIND</i>	84.9	14.2	38.5	21.5	50.6	61.3	39.5
<i>DIARA</i>	41.6	58.4	8.6	2.1	47.6	56.4	38.3
<b>Livelihood Patterns</b>							
	2001 Total Workers	2001 Main Workers	2001 Cultivators	2001 Agricultural Labourers	2001 HHI Workers	2001 Other Workers	2001 Marginal Workers
<i>TAL</i>	395216	275450	110450	169070	16516	99180	119766
<i>BARIND</i>	315143	227450	101681	136367	13192	63903	87693
<i>DIARA</i>	559859	398565	66822	106010	176576	210451	161294
<b>Agrarian Features</b>							
	2001 Small Farm Households	2001 Marg Farm Households	2001 Agri Labour Households	2001 Vested Land	2001 <i>Pattas</i> <th>2001 <i>Pattadars</i></th> <th>2001 <i>Bargadars</i></th>	2001 <i>Pattadars</i>	2001 <i>Bargadars</i>
<i>TAL</i>	23123	44764	105418	10528	5365	34237	18877
<i>BARIND</i>	20869	43088	83597	27008	16662	63590	46212
<i>DIARA</i>	33102	76044	99363	13757	7026	26467	15910
<b>Landuse [in ha]</b>							
	2001 Home-stead Land	2001 Orchards & Pasture-land	2001 Culturable Wasteland	2001 Net Cropped Area	2001 Net Irrigated Area	2001 Multi-cropped Area	Cropping Intensity [%]
<i>TAL</i>	4712	140	213	92373	16528	68426	205
<i>BARIND</i>	3717	161	262	109539	9563	32751	156
<i>DIARA</i>	7176	134	196	78098	8480	38225	167

**Agricultural Productivity**

	2001 <i>Aus</i> Yield	2001 <i>Aman</i> Yield	2001 <i>Boro</i> Yield	2001 <i>Avg Rice</i> Yield	2001 <i>Wheat</i> Yield	2001 <i>Potato</i> Yield	2001 <i>Mustard</i> Yield
<i>TAL</i>	10361	10367	20098	2706	14478	116047	6533
<i>BARIND</i>	8807	9654	14013	2930	10854	52580	4243
<i>DIARA</i>	9704	11607	17004	2613	14188	69945	4683

Source: Census 2001 & BAES, GoWB

Since topographic gradients along the Tal region are barely minimal at an average of  $0.05^{\circ}$  ( $0.1^{\circ}$  maximum,  $0.01^{\circ}$  minimum), the Ganga is the only fast-moving river that traverses this tract, with an average gradient of 1:14500. The other minor regional rivers of the Tal barely manage to crawl across the tract at extremely low gradients ranging between 1:21000 and 1:25000 for the Nagar, Mahananda, Tangan, and Punarbhabava, and falling further to 1:39750 along the Kankhor and 1:31200 along the Kalindri. Because of this combination of low gradients and the resulting sluggishness in their waterflow, all local rivers are prone to inundate the Tal during the monsoon, and the Mahananda with its large upstream catchment has often wreaked flood havoc in the Tal tract.

Annual precipitation decreases from northern to the southern parts of the district and is only 1450mm per annum around the vicinity of Englishbazar. The uneven spatial distribution of rainfall in the district occurs because of the patterns of variation in its topographic profile and the tracks followed by monsoon depressions. Rainfall is also unevenly distributed over the year, as a consequence of which over 90 percent of the annual precipitation descends during the monsoon months. Runoff too falls off drastically from the north to the south, and averaging only 0.538cu.m per sq.km in the vicinity of Englishbazar.

Both during summer and the rainy months, very deep water tables occur in the Barind upland tracts. Deep aquifers descend into the district along the basin of the Mahananda reaching a depth of 150m interspersed by intervening layers of clay. While in the Barind, water-saturated granular material generally occurs in a depth-range between 90m-110m, a continuous underground aquifer is found at a depth between 950m-1000m in the tract lying west of the Mahananda and Kalindri rivers. Utilisable reserves of groundwater in Malda district are thus estimated at 830.31Mcm [0.22Mcm/

sq.km], less than 20 percent of which is currently being drawn for irrigation purposes.

**Comparative Regional Features**

The four development blocks located across the river Mahananda to the east of the district, i.e. Gajol, Old Malda, Bamangola and Habibpur form the Barind tract within the district of Malda. This region of rapidly undulating terrain spreads over 1331sq.km thus occupying a little more than a third of the district. Because of land and soil limitations, human settlement in the Barind is sparser than in the rest of Malda district at an average of 551 persons per sq.km, excluding the urban population in Old Malda. Consequently, the 774 inhabited *mouzas* in the Barind are widely dispersed and also smaller-sized on the average, with an approximate area of around 1.7sq.km and an average population of just under 1000 persons per settlement. In contrast, the 6 development blocks of Harischandrapur 1 & 2, Chanchal 1 & 2 and Ratua 1 & 2 that constitute the Tal span an area of around 1160sq.km with 502 inhabited *mouza* settlements. Thus the settlements in the Tal are larger-sized at an average of around 2.31sq.km and also have larger average population of about 2148 persons per settlement. The Diara in Malda which spreads over the 5 development blocks of Englishbazar, Manikchak and Kaliachak 1, 2 & 3, is very densely settled at 1074 persons per sq.km excluding urban Englishbazar. Although the number of *mouza* settlements here is relatively small at 366, each settlement has an average size of over 3sq.km and a population of well over 3000 persons per settlement.

The uplands of the Barind gradually slope downwards towards the north-east and north of Malda district in the region lying beyond the Mahananda. The 6 development blocks situated here,

namely Harischandrapur 1 & 2, Chanchal 1 & 2 and Ratua 1 & 2 collectively form the Tal tracts. They are bounded by the Mahananda to their east, by the Ganga to the west and the river Kalindri to the south. Since the tract is bounded by rivers, soil conditions improve considerably, proving favourable for mango orchardry and for the cultivation of jute and several other *kharif* and *rabi* crops. However, although the geophysical situation of the Tal is relatively favourable compared to that of the Barind, the socioeconomic indices for several parts of this region, particularly those with high concentration of the minority community, compare unfavourably with the district averages for variables like school education and literacy, infant and maternal mortality, the incidence of child marriage, etc., confirming the depressed socioeconomic situation of the minority communities residing in the Tal region. The presence of such startling regional contrasts within the same district has an important bearing on the social and economic lives of the people of Malda.

Being the largest of the three subregions, the Barind also has the largest number of human habitations. However, since these are widely dispersed and their populations are smaller, the density of settlement in the Barind is sparser at 447 persons per sq.km, a little more than half of the population density in the Diara. The reasons for the lower scale of human settlement in the Barind lie in its semi-arid and water-deprived character, with upland soils that support a lower intensity of cultivation. Conversely the Tal and Diara, which are better endowed with water and also with fertile sedimented soils, have supported more diversified cultivation, more work-related migration and greater intensities of human settlement, which is reflected particularly in the Diara by higher masculinity within the regional population.

In terms of sociocultural characteristics, the population of the Barind which is mainly Hindu, includes a large proportion of Scheduled Castes and Scheduled Tribes. The Muslim population of the district has mainly settled in the Tal and Diara, in both of which it forms the dominant religious group. ST settlement outside the Barind is low, which is in keeping with preference seen among Indian tribal groups to settle in closed communities at some distance from other social groups. Also because most ST groups often hold ancestral

lands that were wrested from the original forests, the incentives for them to migrate have traditionally been low. The SC groups which form close to 40 percent of the population in the Barind are also present substantially in the Tal region. Their presence in the Diara, where the population is dominantly Muslim, is lower. Despite the relatively large presence of the SC/ST groups in the Barind, regional literacy in the Barind is higher than in the Tal and Diara primarily because of higher levels of male literacy. In fact, there is much higher variation in the crossregional levels of male literacy in Malda, than there is in female literacy levels. Low literacy in the Tal and Diara thus seems to be culturally determined by the higher rural Muslim presence there, and the gap between male and female literacy levels is also lower.

The differing intensities in human settlement seen across Malda district seem directly related to livelihoods and work opportunities in different subregions. Work participation is highest in the Diara which has the highest density of settlement. However, the livelihood stress caused by rapid growth of the district population against a limited land and resource base means that work participation rates are well below 50 percent in all three regions of the district, and are lowest in the Tal region at just under 37 percent. Each worker in the Tal thus has to support an average of 1.7 dependents, against 1.4 dependents in the Barind and 1.2 in the Diara. Despite numerical differences in the absolute size of the working population, over two-thirds of the workforce in each region comprises main workers. The proportion of main workers is highest in the Barind which has a lower density of settlement. Accordingly, the proportion of marginal workers in the Barind workforce is also less. Considerable crossregional differences emerge, however, between the occupational distributions of the different Malda regions. In the Barind and Tal, between a quarter to a third of the regional workforce is engaged directly in cultivation, and close to half of the workforce is engaged in agricultural labour. While the proportion of household industry workers is low in the Tal and Barind, the proportion of workers engaged in other off-farm activities in these regions is relatively high at between a fifth to a quarter of the main workforce. Because of its lower population densities, the Barind supports proportionately higher levels of work opportunities within the farm sector. The opportunities for off-farm work in the Barind are

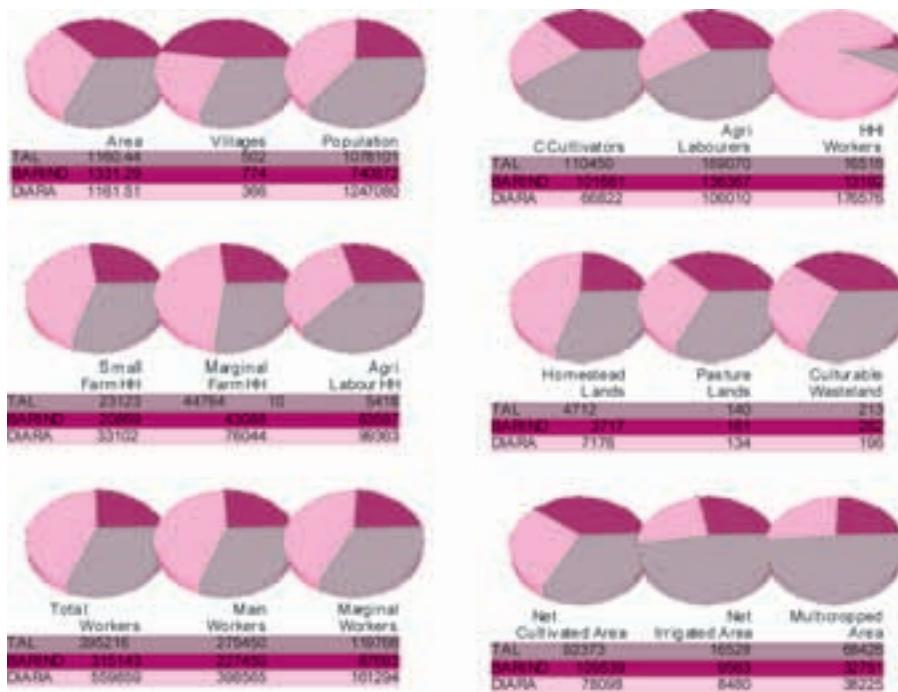
resultantly few. In the Diara, this situation is dramatically reversed. Off-farm workers here constitute more than two-thirds of the main workforce, while the proportion of cultivators and agricultural workers in the workforce is low. Evidently, the principal reasons behind such wide-ranging occupational variations is the relatively higher availability of agricultural land in the Tal and Barind, against overwhelming land scarcity in the Diara caused both by high rural settlement density and landlosses due to flood erosion, land conversion and so on. As the regional agrarian features show, the proportion of small and marginal farmers is high in Malda district and is highest in the Diara. Agricultural labour on the other hand is highest in the Tal where low urbanisation levels also inhibit the possibility of finding other off-farm work. Interestingly, the proportion of vested lands and land *pattas* (land titles) distributed as part of redistributive land reforms in Malda district has been highest in the Barind, indicating that land reforms have been an instrument for the recolonisation of the semi-arid Barind tracts. However, relative limitations on the availability of water resources in the Barind also mean that the productivity impact of redistributive land reforms in the district has been relatively limited.

The differences in crossregional landuse patterns across the Tal, Barind and Diara reflect the same set of settlement intensities, agrarian features and agricultural constraints. In the Diara where settlement densities and regional land pressures are the highest, the quantum of land used for homestead purposes is nearly as high as the sum of homestead lands in the Tal and the Barind. The extent of culturable wastelands available for potential future cultivation in the Diara is correspondingly low. However, while the net cropped area [NCA] is highest in the Barind, the irrigation and multicropping intensity here is relatively low. Thus unlike the Tal where virtually all agricultural lands are multicropped, a large proportion of farming operations in the Barind are carried out on

monocrop land. Cropping intensity in the Diara is low for an entirely different reason, which has to do with the seasonal flooding the region experiences, as a result of which agricultural land becomes inaccessible for a certain part of the year. In recent times, the spread of mango cultivation across the Diara has also been a factor in reducing cropping intensity.

Crossregional differences also occur in agricultural yields across the Tal, Barind and the Diara, which reflect intrinsic differences in soil quality, water availability and land husbanding practices. Except for the yields of the main *aman* rice crop that grows in rainfed conditions over the monsoon months, agricultural yields are uniformly higher in the well-watered Tal region. Again, the yields for most crops in the Barind are much lower because of low irrigation intensity. The higher average rice yield overall for the Barind is actually a consequence of the vast extent of land cultivated during the rainfed *aman* season when the differences in crop-yields across the three regions are minimal.

Such interregional differences across the district of Malda are represented more compactly in the accompanying set of graphics which summarise the crossregional variations found across the Tal, Barind and Diara. The developmental impact of these variations is primarily felt in terms of the economic and livelihood choices available to the regional



population and, over the more extended timeframe, in the consequential patterns of human settlement and human activities that have emerged in different parts of the district, and thus also in the patterns of human development witnessed in the district of Malda.

## Regional Development Patterns

In human development terms, the potentialities in Malda district become more complex. Since the economy of the district is primarily rural, with the Old Malda-Englishbazar municipalities being the only urban settlements of major consequence, livelihood opportunities for the district population have derived mainly from agriculture or other farm-based activities including the agricultural trade. However, with the high density of human settlement and the low availability of cultivable land, there is limited room for expansion at this economic base. Given the antiquity of the district and its former political and economic eminence during the age of the Gaur Sultans, a base for rural artisanship and non-farm activities has also traditionally existed in Malda district. Although the old cottage craft of artisanal weaving has now practically vanished in Malda, having shifted base to adjoining Murshidabad after the advent of Mughal rule and the formation of the *Subah-i-Bangal*, vestiges of this old base of rural off-farm activity is found in localised form in the practice of sericulture in parts of the Diara centered mostly within the Muslim community. Clearly, future development solutions for the district will have to be found outside the domain of agriculture, because of the uneven spread of water resources and the low per capita availability of agricultural land. For this to happen, the quality of human resources in the district will need to be raised substantially through the extension of basic education and also the re-skilling of artisanal sections among the population. In comparison to such needs, the present educational and literacy attainments of the district are rather low, indicating that much remains to be done in human development terms. The extension of better healthcare and education in the district of Malda faces huge challenges because communication and infrastructural limitations as well as the sheer size of the human population that still has to be provided for. Nevertheless this task is well worth achieving because

the attainment of higher educational and literacy levels will carry spin-off benefits in terms of gainful utilisation of the public funds allocated for district development, cutbacks in morbidity, infant mortality and maternal mortality and thus in their attendant healthcare costs, overall increases in life expectancy among the population, as well as greater diversification of livelihood opportunities reducing absolute poverty and increasing the district per capita income.

Despite this huge human development potential that presently lies before the district, the present state of advancement in the socioeconomic and healthcare sectors is far from satisfactory. Even the Tal, which is better placed in physiographical and economic terms, is subject to same human development limitations. This would suggest that several sociocultural factors contribute to the present state of general backwardness, which include the large presence of minorities and socially backward communities, the continuance of social practices that are detrimental to gender such as early marriage and high fertility, active gender discrimination and the prevalence of illiteracy particularly among women and many other related factors. Once again, for these current institutional constraints to be overcome, the human development agenda has to be aggressively pursued in Malda district in active partnership with civil society, in a manner that replaces the old social and institutional bottlenecks with a new social consensus built around human development needs. Although challenging, this task is not impossible.

The physiographic location of Malda district at the point where the Ganga enters its estuarine zone places several natural hurdles in the path of what is achievable in purely developmental terms. Such natural impediments are particularly visible in the Barind and the Diara – in the former, because of the limited access to water resources, and in the latter, because of the abundance of water. Historically, the Tal and Diara regions have seen several cycles of river alluvion and diluvion, making it difficult to conceive longterm regional developmental needs in static terms. As the foregoing crossregional analysis shows, the contribution of the Diara to the state of social and agricultural advancement in Malda district is limited despite its being situated in a fertile region of the alluvial plains. One of the major recent causes for its backwardness has undoubtedly been the fact that a vast stretch of the

Diara tract is in the grip of active river diluvion and erosion. The annual occurrence of floods is thus a common phenomenon in this area. Along with flooding, water-logging and attendant crop-losses, the loss of livestock, property and human lives recur frequently in the Diara, and a considerable area of arable farmland and orchards along this tract has already been surrendered to the Ganga.

**Table: Estimated Impact of River Erosion in the Malda Diara**

CD Block	Total Mouzas Affected	Total Area Eroded [acres]	Total Land-losing Families
Manikchak	15	13204.02	3330
Kaliachak 2	20	25114.67	7378
<b>Total</b>	<b>35</b>	<b>38318.69</b>	<b>10708</b>

The table above provides adequate indication of the magnitude of such losses attributable to the forces of nature. As a result of the devastating scale of land erosion, the inhabitants of 236 riverine villages have lost their holdings of arable land and an estimated 5043ha of prime cropland has been swallowed by the Ganga. Having been forced into ecological destitution, these families have resettled at several sites in Manikchak and Kaliachak 2 blocks, mainly occupying the PWD lands that border the major district roads. Their economic situations are truly desperate, since they have been converted into the rural poor overnight. In an overwhelmingly rural district settlement density is high and access to arable land is limited, the livelihood choices before this destitute population are severely circumscribed. Meanwhile the river continues its advance into the district despite the best efforts of the concerned State Government departments to halt fresh incursions before the coming of the next rains. Human development situations in the district are thus deeply dependent on *force majeur*, and must be appraised in this light.

## Longterm Demographic Change

The regional demography of Malda district has undergone continuous alteration over the period between 1901-1991, during which the aggregate population of the district has risen more than five-fold

from just over 6 lakh to well over 32 lakh. The high rate of population growth is attributable as much to immigration as to natural processes of demographic increase, which have also generated changes of considerable magnitude in the ethnocultural complexion of North Bengal. During the Census conducted in 1991, over 3.3 lakh persons currently resident in North Bengal were recorded as being born in other states within India, and another 9.2 lakh persons as being born outside the country. Thus over 12.5 lakh persons were identified as direct immigrants into North Bengal from outside the state, collectively comprising around one fourth of all such immigrants that were resident in the state of West Bengal. Adding to them in vast numbers were other residents who had immigrated into North Bengal from other districts within the state.

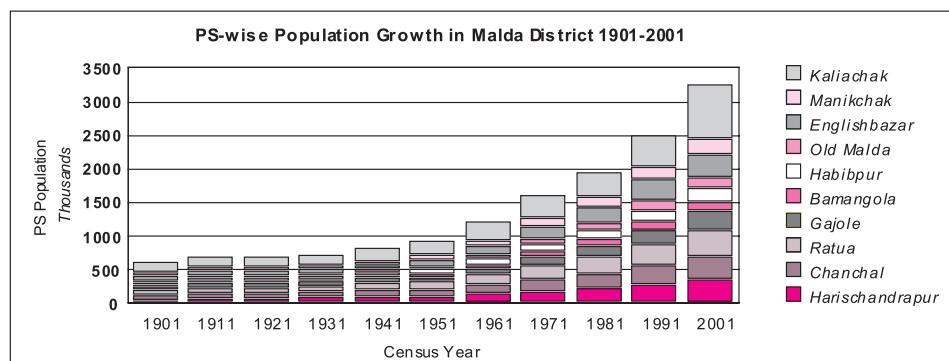
Because of its contiguity to international and interstate borders and because of its character as an intensely cultivated region that can support human settlement of high density, Malda district has been a principal recipient of the human migration waves of the 20<sup>th</sup> century, firstly when the new *chars* along the Diara were opened for revenue settlement during colonial times, and secondly during the aftermath of Partition. New migration has also led to demographic changes of considerable complexity that affect the human development scenarios of the district. Among these are features such as :

- slow accrual of the economic benefits from regional development, in per capita terms, as the regional gains are spread thinly over a fast-growing population
- difficulties in targeting development programme because of continuous multiplication of the beneficiary population well beyond anticipated levels
- continuous importation of human resources to meet specific regional labour needs, that have eventually created a mismatch between the regional workforce and available work opportunities, and
- an undercurrent of social tension between indigenous and immigrant sections of the population over the unequal distribution of development gains.

**Table: Police Station-wise Growth of Population in Malda District 1901–2001**

Police Station	Area											
	2001	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001
Harischandrapur	388.62	47592	57072	71845	82596	99974	101156	136682	177333	221890	286906	360445
Kharba	367.36	70810	82399	80516	83594	103062	100498	137444	177905	217746	275985	339396
Ratua	404.46	69304	84662	81073	85793	102985	115834	151899	195161	241198	299417	378260
Gajol	513.65	52966	64052	65773	67023	73387	73171	94505	143426	180315	233139	294715
Bamangola	205.91	24861	30065	30872	31174	35973	39665	47805	66773	85362	107579	127252
Habibpur	398.81	42814	49841	47414	48969	52307	72193	87494	113170	141070	168397	187650
Old Malda	224.66	29534	34381	32707	30584	33978	37420	52475	71077	98767	146020	194214
Englishbazar	265.15	70349	73591	62909	69651	53539	93872	131377	182996	239457	319638	387692
Manikchak	321.77	47218	57683	55237	56482	64786	77587	98610	126715	149981	177572	214127
Kaliachak	588.22	148201	164801	157828	164574	194324	226184	283635	358101	359603	478841	806717
Malda DT	3733	603649	698547	686174	720440	814315	937580	1221926	1612657	1935389	2493494	3290468

Source: District *Census Reports*, various years



Longterm population growth rates in Malda district show a high order of fluctuation, indicating that immigration into the district has been periodic in nature. Population growth in Malda over the pre-Partition period had been relatively steady. Hence the spurt in growth rates arising from transborder political events after 1951 was consequently mild. However, population growth rates began to accelerate again as the result of renewed immigration after 1981.

Malda is still a largely rural district where long-term demographic change is partially influenced by the new arable lands and river *chars* that have risen to occupy several large tracts of the silted riverbeds in the Diara and Tal. Because of the high fertility of this alluvial region, it is densely settled, limiting its capacity to support a new population. Population growth in the district since 1901 has therefore been more moderate compared to the growth rates witnessed in several other North Bengal districts. In terms of these long-term trends the highest order of population increase has occurred in the Diara tracts of Kaliachak and in Harischandrapur to the northwest corner of the Tal

along the interstate border with Bihar. The associated factors of increase in population between 1901-2001 have thus been over seven-fold in Harischandrapur and over six-fold in Kaliachak, which was already a densely settled region at the commencement of the 20<sup>th</sup> century. Population growth in the Barind region, which is water-scarce and therefore has limited capacity to support a growing population, has been led by Old Malda followed by Gajol. However, because of its size, Gajol is the most populous subregion of the Barind and has witnessed substantial new settlement as the old dry forests that had covered its landscapes have progressively dwindled.

For the district as a whole, population growth in the district has maintained a rising trend over the century, growing at the long-term annual exponential rate of 1.7 percent per annum. However, the rates of annual increase have varied from period to period. Through the pre-Partition decades the annual rates of population growth were well below 1 percent per annum. They reached a subsequent peak between 1951-1971, when they showed annual increase of the population at the

rate of 2.3 percent p.a. Between 1971-1981, annual population growth rates fell to 1.7 percent p.a, but have again climbed to 2.7 percent p.a between 1981-2001. Of the three *thanas* in the Tal region, Ratua and Harischandrapur have shown remarkably consistent trends in annual population growth rates through both sub-periods and over the century, indicating that the pattern of demographic increase and new settlement there reflects a relatively steady long-term trend.

Habibpur in the Barind and Manikchak in the Diara show similar long-term trends. In contrast, the other Malda police stations have shown sharply accelerated population growth in the post-Partition, both because of natural factors such as the decline in death rates relative to birth rates, and because of renewed migration as the new settlers in certain Malda regions have dispersed through the district in search of economic opportunities and work.

**Table : Long-term Annual Rates of Growth of Population in Malda**

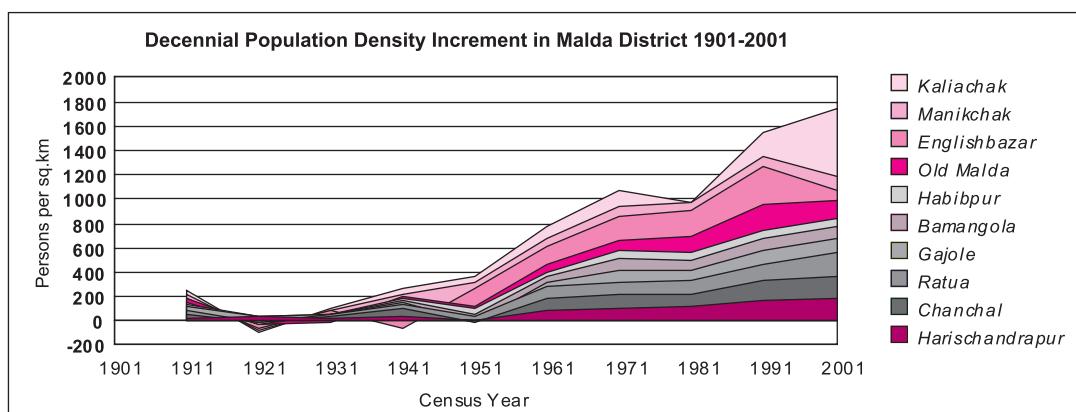
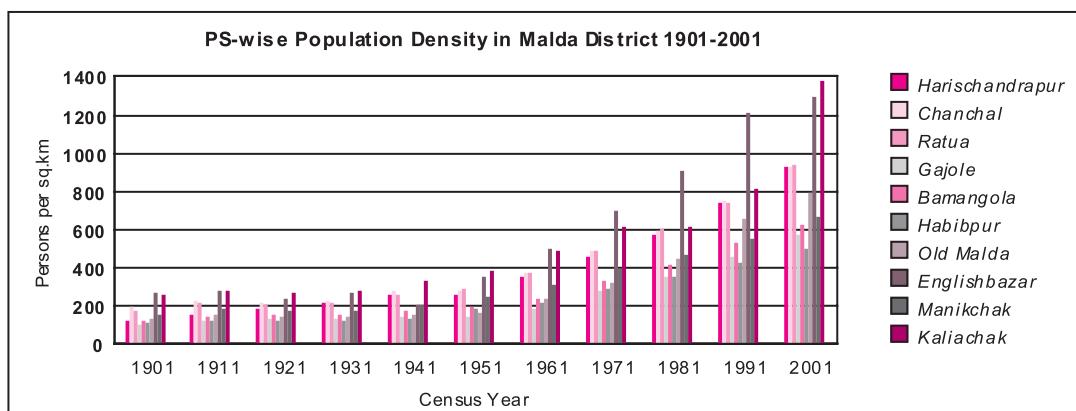
PS/DT	Population Growth 1901-1951 % p.a	Population Growth 1951-2001 % p.a	Population Growth 1901-2001 % p.a	Land-man Ratio 1901 ha/person	Land-man Ratio 2001 ha/person
Harischandrapur	1.52	2.57	2.05	0.82	0.11
Kharba	0.70	2.46	1.58	0.52	0.11
Ratua	1.03	2.40	1.71	0.58	0.11
Gajol	0.65	2.83	1.73	0.97	0.17
Bamangola	0.94	2.36	1.65	0.83	0.16
Habibpur	1.05	1.93	1.49	0.93	0.21
Old Malda	0.47	3.35	1.90	0.76	0.12
Englishbazar	0.58	2.88	1.72	0.38	0.07
Manikchak	1.00	2.05	1.52	0.68	0.15
Kaliachak	0.85	2.58	1.71	0.40	0.07
<b>Malda DT</b>	<b>0.88</b>	<b>2.54</b>	<b>1.71</b>	<b>0.62</b>	<b>0.11</b>

Source: Computed from preceding table

Land-man ratios in Malda district have consequently fallen from 0.61 hectares per person in 1901 to 0.11 hectares per person in 2001 has also fallen from 0.60 in 1901 to 0.14 in 1991, which reveal the extreme degree of land pressure in the district. With the shift of landuse from food crops to cash crops and mango orchardry which has affected several agricultural tracts in the district, this pressure has been rendered more acute. This shows the extreme pressure on land in Malda. Notably, the highest attritions in land availability have occurred primarily in several parts of the Tal and Barind regions, where a large landless rural population is now engaged principally in agricultural wage-work.

Population density in the district has accordingly intensified from 162 persons per sq. km in 1901 to 881 in 2001, which is highest among the North Bengal districts. Population densities exceeding 924 persons per sq.km across the entire Tal and surpassing 1300 persons per sq. km in Kaliachak and Englishbazar in the Diara point towards rural saturation in these regions. However,

unlike the densely settled southern parts of West Bengal, urbanisation levels in Malda district remain low, with the twin towns of Old Malda and Englishbazar constituting the only significant urban region. Both townships have grown relatively steadily over the century, but have only lately begun to show an outward spread. Because of the lack of other developed urban areas in the district, the concentration of the urban in Englishbazar and its vicinity is particularly intense. New settlements that have emerged along the outskirts of this urban complex have gradually been incorporated into the respective municipalities, thereby intensifying rural land pressure. The future trend towards urbanisation will be vital to the district, since it will offer an economic alternative to the landless population. Such trends are already visible in the Kaliachak area, where there has been a remarkable shift from farm based to non-farm based occupations under the inexorable influence of river erosion and land loss.



**Table: Decennial Growth of PS Populations in Malda District 1901-2001**

Police Station	Base-Population 1901	Decades 1901-1911	1911-1921	1921-1931	1931-1941	1941-195	1951-1961	1961-1971	1971-1981	1981-1991	1991-2001
Percentage Rates of Growth											
Harischandrapur	47592	19.92	25.88	14.96	21.04	1.18	35.12	29.74	25.13	29.30	25.63
Kharba	70810	16.37	-2.29	3.82	23.29	-2.49	36.76	29.44	22.39	26.75	22.98
Ratua	69304	22.16	-4.24	5.82	20.04	12.48	31.14	28.48	23.59	24.14	26.33
Gajol	52966	20.93	2.69	1.90	9.50	-0.29	29.16	51.77	25.72	29.30	26.41
Bamangola	24861	20.93	2.68	0.98	15.39	10.26	20.52	39.68	27.84	26.03	18.29
Habibpur	42814	16.41	-4.87	3.28	6.82	38.02	21.19	29.35	24.65	19.37	18.47
Old Malda	29534	16.41	-4.87	-6.49	11.10	10.13	40.23	35.45	38.96	47.84	20.71
Englishbazar	70349	4.61	-14.52	10.72	-23.13	75.33	39.95	39.29	30.85	33.48	7.29
Manikchak	47218	22.16	-4.24	2.25	14.70	19.76	27.10	28.50	18.36	18.40	20.59
Kaliachak	148201	11.20	-4.23	4.27	18.08	16.40	25.40	26.25	0.42	33.16	68.47
<b>Malda DT</b>	<b>603649</b>	<b>15.72</b>	<b>-1.77</b>	<b>4.99</b>	<b>13.03</b>	<b>15.14</b>	<b>30.33</b>	<b>31.98</b>	<b>20.01</b>	<b>28.84</b>	<b>29.92</b>

Source: District *Census Reports*, various years

**Table: Police Station-wise Growth of Population Density in Malda District 1901-2001**

Police Station	Population Density per sq.km										
	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001
Harischandrapur	122	147	185	213	257	260	352	456	571	738	927
Kharba	193	224	219	228	281	274	374	484	593	751	924
Ratua	171	209	200	212	255	286	376	483	596	740	935
Gajol	103	125	128	130	143	142	184	279	351	454	574
Bamangola	121	146	150	151	175	193	232	324	415	522	618
Habibpur	107	125	119	123	131	181	219	284	354	422	471
Old Malda	131	153	146	136	151	167	234	316	440	650	864
Englishbazar	265	278	237	263	202	354	495	690	903	1205	1462
Manikchak	147	179	172	176	201	241	306	394	466	552	665
Kaliachak	252	280	268	280	330	385	482	609	611	814	1371
<b>Malda DT</b>	<b>162</b>	<b>187</b>	<b>184</b>	<b>193</b>	<b>218</b>	<b>251</b>	<b>327</b>	<b>432</b>	<b>518</b>	<b>668</b>	<b>881</b>
<b>West Bengal</b>	<b>191</b>	<b>203</b>	<b>197</b>	<b>213</b>	<b>262</b>	<b>297</b>	<b>394</b>	<b>500</b>	<b>616</b>	<b>769</b>	<b>903</b>

**Density Increments 1901–2001**

Police Station	Base										
	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001
Harischandrapur	122	24	38	28	45	3	91	105	115	167	189
Kharba	193	32	-5	8	53	-7	101	110	108	159	173
Ratua	171	38	-9	12	43	32	89	107	114	144	195
Gajol	103	22	3	2	12	-0	42	95	72	103	120
Bamangola	121	25	4	1	23	18	40	92	90	108	96
Habibpur	107	18	-6	4	8	50	38	64	70	69	48
Old Malda	131	22	-7	-9	15	15	67	83	123	210	215
Englishbazar	265	12	-40	25	-61	152	141	195	213	302	257
Manikchak	147	33	-8	4	26	40	65	87	72	86	114
Kaliachak	252	28	-12	11	51	54	98	127	3	203	557
<b>Malda DT</b>	<b>162</b>	<b>25</b>	<b>-3</b>	<b>9</b>	<b>25</b>	<b>33</b>	<b>76</b>	<b>105</b>	<b>86</b>	<b>150</b>	<b>213</b>
<b>West Bengal</b>	<b>191</b>	<b>12</b>	<b>-6</b>	<b>16</b>	<b>49</b>	<b>35</b>	<b>97</b>	<b>106</b>	<b>116</b>	<b>152</b>	<b>134</b>

Source: District Census Reports, various years

**Institutions of Local Governance**

The apex institution for local governance of the district is the Malda Zilla Parishad (District Council). For each of the 15 development blocks, the corresponding local governance institution is the respective Panchayat Samiti, the jurisdiction of which is coterminous with that of the block authority. At grassroots level, there are 146 Gram Panchayats and 2021 Gram Sansads in the district, covering the 1814 mouzas and 3701 villages that fall within the jurisdiction of the Zilla Parishad. Urban governance devolves upon the municipalities at Old Malda and Englishbazar. Since the district is

primarily rural, there are no other statutory towns although three small fast-urbanising clusters at Kendua, Kachupukur and Aiho in Habibpur block have acquired the informal status of 'census towns' in 2001.

The three-tier Panchayat system in Malda district has functioned effectively since inception. Besides the central elected council of the Zilla Parishad headed by the Sabhadhipati, the Malda Zilla Parishad is assisted in its working by 10 Sthayee Samitis or standing committees that supervise the development programmes of the Zilla Parishad, as listed below.

### Chart: Standing Committees of the Zilla Parishad & their Primary Functions

*Artha Sanstha Unnayan O Parikalpana Sthayee Samiti* : Financial affairs, development and district planning  
*Janaswasthya O Paribesh Sthayee Samiti* : Public health and environmental affairs  
*Purtakarjya O Paribahan Sthayee Samiti* : Public works and transportation  
*Krishi Sech O Samabaya Sthayee Samiti* : Agriculture, irrigation and cooperative affairs  
*Shiksha, Sanskriti, Tathya O Kriya Sthayee Samiti* : Education, culture and information and sports  
*Shishu O Nari Unnayan, Janakalyan O Tran Sthayee Samiti* : Women & child development, social welfare and relief  
*Ban O Bhumi Sanskar Sthayee Samiti* : Forest affairs and soil conservation  
*Matsya O Pranisampad Bikash Sthayee Samiti* : Fisheries and animal resources development  
*Kshudra Shilpa, Bidyut O Achiracharit Shakti Sthayee Samiti* : Small industry, electricity and non-conventional energy  
*Khadya O Sarabharha Sthayee Samiti* : Food and civil supplies

### Chart: Schematic Structure of Panchayati Raj Institutions in Malda District

*[Coding by Tal, Barind & Diara Sub-Regions]*



The Sabhadhipati and Sahakari Sabhadhipati of the Zilla Parishad are ex-officio members of all Sthayee Samitis, each Samiti being headed by the designated Karmadhyaksha. All plans and programmes initiated by the respective Sthayee Samitis and approved by the majority of their members at a formal meeting are

considered as decisions of the Malda Zilla Parishad. The Zilla Parishad sanctions funds for the developmental schemes that are taken up at block-level by the Panchayat Samitis within its jurisdiction. All block-level schemes sent up by the Panchayat Samitis that require larger funding support as well as any works that may

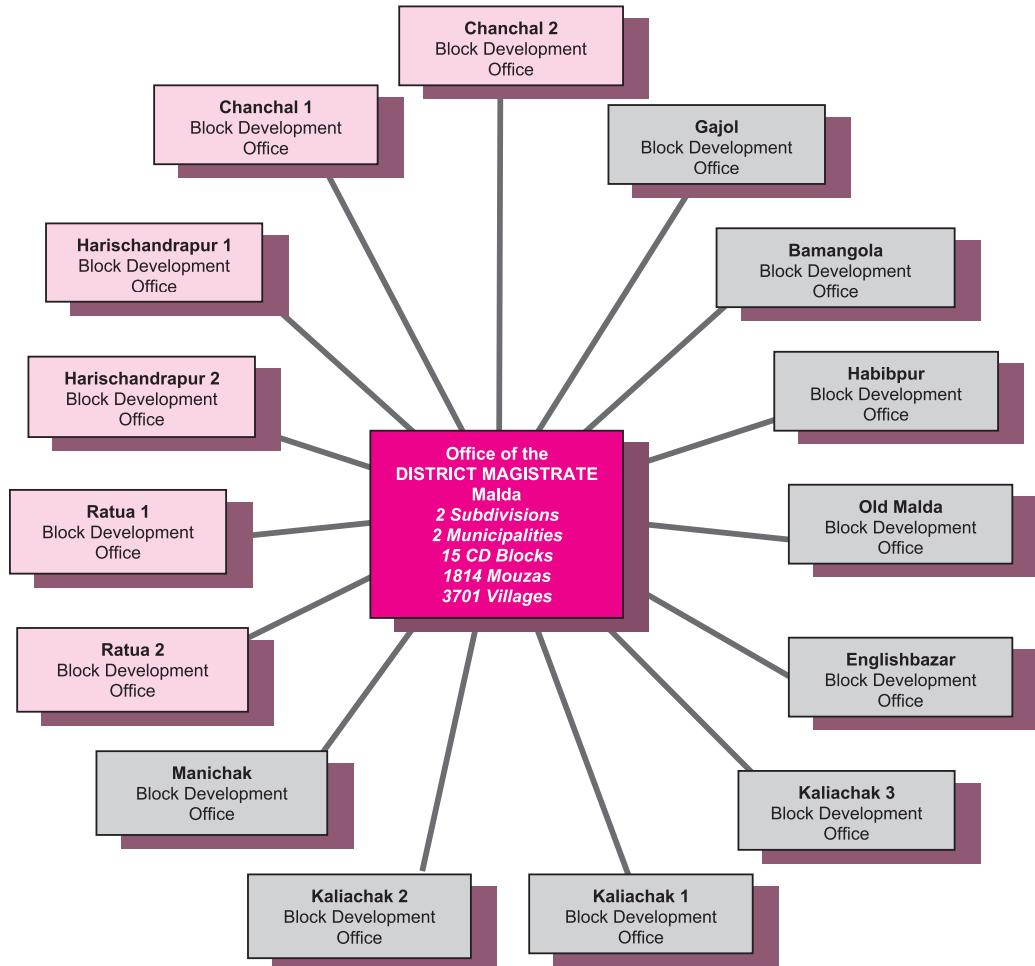
need to be implemented jointly by more than one Panchayat Samiti are also considered by the Malda Zilla Parishad. The Zilla Parishad also arranges for technical vetting of the schemes executed by the Panchayat Samitis. Additionally, the Zilla Parishad may also directly execute developmental schemes through its own machinery in the block areas. The District Magistrate of Malda functions as the ex-officio Executive Officer of the Malda Zilla Parishad while an Additional District Magistrate functions as the ex-officio Additional Executive Officer. The Secretary and Deputy Secretary of the Malda Zilla Parishad assist the Executive Officer and Additional Executive Officer in executing the programmes and functions of the Zilla Parishad.

Like the Zilla Parishad at the district's helm, each Panchayat Samiti at the second tier of the panchayat system in Malda district also has 10 Sthayee Samitis led

by designated Karmadhyakshas. The Sabhapati and Sahakari Sabhapati who preside over the functioning of each Panchayat Samiti are also ex-officio members of all Sthayee Samitis at block-level. In each development block, the Block Development Officer [BDO] functions as the ex-officio Executive Officer of the concerned Panchayat Samiti. All schemes and decisions approved by the Panchayat Samiti are implemented by these Executive Officers. The Panchayat Samiti allots periodic funding for various development schemes to the Gram Panchayats under its jurisdiction, and also monitors and evaluates the functioning of these Gram Panchayats through the Executive Officer and other Panchayat Samiti members and officials. Government officers from each of the concerned line departments also function as standing members of the Sthayee Samitis that relate to their areas of technical competence.

### Chart: Schematic Structure of the District Administration in Malda District

*[Coding by Administrative Sub-Divisions]*



At the third level within the panchayat system, each Gram Panchayat is headed by the respective Panchayat Pradhan. Each Gram Panchayat functions through 5 Upa-Samitis or subcommittees, each headed by an elected office-bearer who functions as the Sanchalak or coordinator of each concerned Upa-Samiti.

### **Chart: Gram Panchayat Upa-Samitis & their Primary Functions**

*Artha O Parikalpana Upa-Samiti* : Financial affairs and village-level planning

*Krishi O Prani Sampad Upa-Samiti* : Agriculture and animal resources

*Nari O Shishu Bikash O Samaj Kalyan Upa-Samiti* : Women & child development and social welfare

*Shiksha O Janaswasthya Upa-Samiti* : Education and public health

*Shilpa O Parikathamo Upa-Samiti* : Industry and infrastructure

Within the 3-tier panchayat system, involvement from the local people in the developmental activities implemented by the Malda Zilla Parishad, the 15 Panchayat Samitis and 146 Gram Panchayats is drawn at all levels through their open participation in public hearings, consultations and meetings. At village-level, the local stakeholders also attend open Gram Sansad or village council meetings and participate actively in the activities of Gram Unnayan Samitis.

In the two municipal towns of the district, i.e. Old Malda and Englishbazar, elected Municipal Boards oversee the overall development of urban areas through several municipal committees. The main functions of each Municipality are to secure potable drinking water, arrange for the lighting of streets and public places, as well as to supervise the development and maintenance of civic drainage systems, provide urban conservancy services, and to develop market and commercial institutions within the urban limits. Each Municipality is led by an elected Chairperson, who is assisted by the Municipal Councillors in implementing various urban development works within the

Municipality. The urban Municipalities also extend their support to cultural and sporting activities in the two municipal towns. At the urban grassroots, each municipal ward has a Ward Committee that formulates urban development schemes for the ward and supervises and monitors their execution. All municipal development schemes are implemented after due approval has been accorded to them by the Municipal Board.

## **Non-Governmental Organisations**

Growing involvement of NGOs and other civil society organisations in the process of human resource-augmentation becomes inevitable, when the limited resources and manpower at the disposal of the state are inadequate for achieving longterm development visions. Thus in recent times, a very large number of NGOs have begun to function within Malda district, where they work in close collaboration with government departments in extending development to the common people. NGOs have contributed significantly to welfare programmes for the rehabilitation of disabled persons and to disaster relief and civic awareness-building programmes across the district. They have played a major role in addressing social transformation issues involving the building of a social consensus against dowry and child marriage practices, and the eradication of child labour and trafficking of women, as well as in the rehabilitation of victims of crimes against women, with minimal funding support from the state. A considerable number of local NGOs are also closely involved in rural development and capacity building activities particularly in the health sector. There is nevertheless considerable social space for the formation of new NGOs in different parts of the district and or their closer involvement in evaluation and monitoring activities relating to the developmental programmes administered by the Panchayats and State Government departments.

## Chapter Annexes

### Annex 1: Panchayat Samitis & Gram Panchayats of Malda District 2001

Serial	Panchayat Samitis & Gram Panchayats	2001 Population	2001 Males	2001 Females	2001 SC/ST Population	% SC/ST	2001 Non-SC/ST Population	% Non-SC/ST
	<b>Harischandrapur 1</b>	<b>162369</b>	<b>83122</b>	<b>79247</b>	<b>44495</b>	<b>27.4</b>	<b>117874</b>	<b>72.6</b>
1	Kushida	26826	13608	13218	9566	35.7	17260	64.3
2	Boroi	22666	11578	11088	4397	19.4	18269	80.6
3	Rashidabad	19095	9841	9254	1476	7.7	17619	92.3
4	Tulshihiata	23388	12070	11318	8952	38.3	14436	61.7
5	Bhingole	17230	8742	8488	4370	25.4	12860	74.6
6	Mahendrapur	18616	9516	9100	2211	11.9	16405	88.1
7	Harischandrapur	34548	17767	16781	13523	39.1	21025	60.9
	<b>Harischandrapur 2</b>	<b>198127</b>	<b>102075</b>	<b>96052</b>	<b>22484</b>	<b>11.3</b>	<b>175643</b>	<b>88.7</b>
1	Sadlichak	22928	11851	11077	4242	18.5	18686	81.5
2	Sultannagar	30563	15671	14892	3885	12.7	26678	87.3
3	Malior 1	19420	9992	9428	934	4.8	18486	95.2
4	Malior 2	12865	6641	6224	1172	9.1	11693	90.9
5	Islampur	17092	8799	8293	1843	10.8	15249	89.2
6	Doulatnagar	26114	13442	12672	4203	16.1	21911	83.9
7	Bhaluka	21925	11415	10510	2504	11.4	19421	88.6
8	Doulatpur	20428	10338	10090	2355	11.5	18073	88.5
9	Masaldah	26792	13926	12866	1346	5.0	25446	95.0
	<b>Chanchal 1</b>	<b>174177</b>	<b>89220</b>	<b>84957</b>	<b>26450</b>	<b>15.2</b>	<b>147727</b>	<b>84.8</b>
1	Mahanandapur	20251	10373	9878	3829	18.9	16422	81.1
2	Bhagabanpur	21507	11017	10490	1505	7.0	20002	93.0
3	Mokdumpur	19304	9889	9415	2245	11.6	17059	88.4
4	Kharba	25369	12995	12374	3222	12.7	22147	87.3
5	Chanchal	27336	14003	13333	5951	21.8	21385	78.2
6	Kaligram	19002	9733	9269	2757	14.5	16245	85.5
7	Alihanda	16541	8472	8069	3022	18.3	13519	81.7
8	Motiharpur	24867	12738	12129	3919	15.8	20948	84.2
	<b>Chanchal 2</b>	<b>165168</b>	<b>84173</b>	<b>80995</b>	<b>29774</b>	<b>18.0</b>	<b>135394</b>	<b>82.0</b>
1	Bhakri	19625	10001	9624	1707	8.7	17918	91.3
2	Malatipur	27326	13926	13400	5708	20.9	21618	79.1
3	Gourhand	20358	10375	9983	6480	31.8	13878	68.2
4	Chandrapara	28130	14336	13794	2655	9.4	25475	90.6
5	Jalalpur	24110	12286	11824	227	0.9	23883	99.1
6	Kshempur	23942	12201	11741	12390	51.8	11552	48.2
7	Dhangara Bisanpur	21677	11048	10629	607	2.8	21070	97.2
	<b>Ratua 1</b>	<b>217259</b>	<b>112462</b>	<b>104797</b>	<b>24461</b>	<b>11.3</b>	<b>192798</b>	<b>88.7</b>
1	Debipur	26526	13731	12795	4305	16.2	22221	83.8
2	Mahanandatola	23963	12404	11559	3312	13.8	20651	86.2
3	Bilaimari	14760	7640	7120	821	5.6	13939	94.4
4	Kahala	17125	8865	8260	2170	12.7	14955	87.3
5	Ratua	28305	14652	13653	4710	16.6	23595	83.4
6	Baharal	22703	11752	10951	3887	17.1	18816	82.9
7	Bhado	21366	11060	10306	393	1.8	20973	98.2
8	Samsi	25828	13370	12458	2611	10.1	23217	89.9
9	Chandmoni 1	19711	10203	9508	122	0.6	19589	99.4
10	Chandmoni 2	16972	8785	8187	2130	12.6	14842	87.4

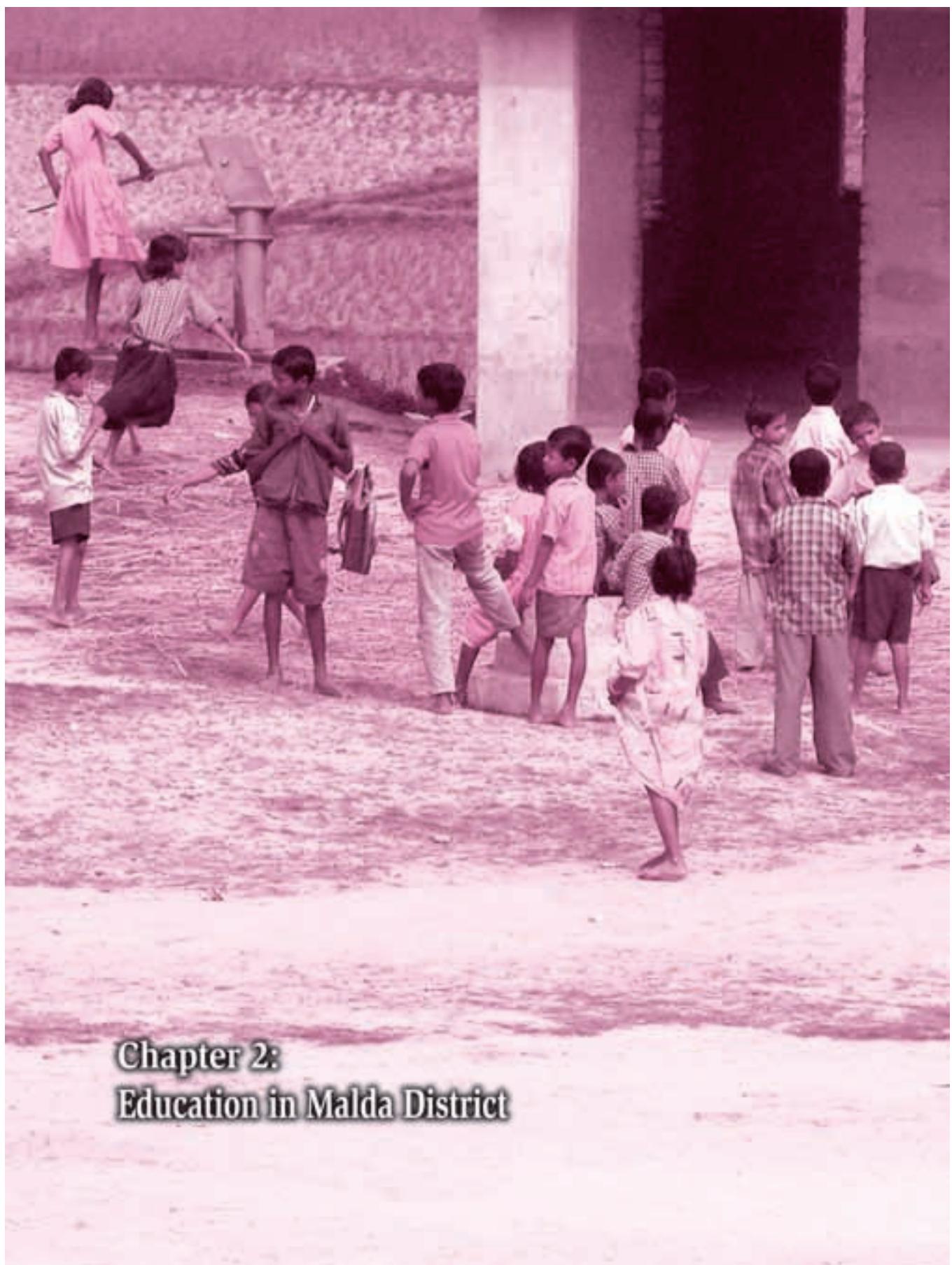
Serial	Panchayat Samitis & Gram Panchayats	2001 Population	2001 Males	2001 Females	2001 SC/ST Population	% SC/ST	2001 Non-SC/ST Population	% Non-SC/ST
	<b>Ratua 2</b>	<b>160922</b>	<b>82346</b>	<b>78576</b>	<b>15985</b>	<b>9.9</b>	<b>144937</b>	<b>90.1</b>
1	Sreepur 1	22221	11445	10776	2266	10.2	19955	89.8
2	Sreepur 2	17502	8882	8620	1059	6.1	16443	93.9
3	Maharajpur	23521	11889	11632	1792	7.6	21729	92.4
4	Sambalpur	22836	11823	11013	103	0.5	22733	99.5
5	Paranpur	20124	10338	9786	2423	12.0	17701	88.0
6	Araidanga	20159	10299	9860	2996	14.9	17163	85.1
7	Pukhuria	16548	8512	8036	2922	17.7	13626	82.3
8	Pirganj	18011	9158	8853	2424	13.5	15587	86.5
	<b>Gajol</b>	<b>294749</b>	<b>150337</b>	<b>144412</b>	<b>162613</b>	<b>55.2</b>	<b>132136</b>	<b>44.8</b>
1	Alal	29194	14890	14304	11463	39.3	17731	60.7
2	Karkach	20783	10600	10183	13361	64.3	7422	35.7
3	Deotala	16684	8507	8177	7303	43.8	9381	56.2
4	Babupur	12050	6147	5903	6588	54.7	5462	45.3
5	Chaknagar	15734	8025	7709	12277	78.0	3457	22.0
6	Salaidanga	27764	14159	13605	19283	69.5	8481	30.5
7	Sahajadpur	18869	9627	9242	7772	41.2	11097	58.8
8	Gazole 1	21639	11039	10600	9448	43.7	12191	56.3
9	Gazole 2	17079	8710	8369	13826	81.0	3253	19.0
10	Bairgachhi 1	13651	6964	6687	1816	13.3	11835	86.7
11	Bairgachhi 2	16467	8399	8068	8090	49.1	8377	50.9
12	Pandua	32279	16464	15815	12458	38.6	19821	61.4
13	Raniganj 1	13925	7103	6822	9914	71.2	4011	28.8
14	Raniganj 2	17724	9041	8683	12527	70.7	5197	29.3
15	Majhra	20907	10662	10245	16487	78.9	4420	21.1
	<b>Habibpur</b>	<b>187568</b>	<b>94861</b>	<b>92707</b>	<b>146548</b>	<b>78.1</b>	<b>41020</b>	<b>21.9</b>
1	Mangalpura	15498	7838	7660	13239	85.4	2259	14.6
2	Aktail	19171	9695	9476	16729	87.3	2442	12.7
3	Baidyapur	27926	14123	13803	25940	92.9	1986	7.1
4	Jajoil	12470	6306	6164	11287	90.5	1183	9.5
5	Kanturka	15052	7612	7440	14189	94.3	863	5.7
6	Habibpur	15370	7773	7597	12879	83.8	2491	16.2
7	Bulbulchandi	25119	12704	12415	13791	54.9	11328	45.1
8	Aiho	16167	8174	7993	7675	47.5	8492	52.5
9	Rishipur	13138	6645	6493	7770	59.1	5368	40.9
10	Srirampur	12848	6497	6351	10256	79.8	2592	20.2
11	Dhumpur	14809	7494	7315	12793	86.4	2016	13.6
	<b>Bamangola</b>	<b>127156</b>	<b>65196</b>	<b>61960</b>	<b>91150</b>	<b>71.7</b>	<b>36006</b>	<b>28.3</b>
1	Madnabati	21992	11276	10716	10558	48.0	11434	52.0
2	Gobindapur-Maheshpur	18936	9709	9227	11759	62.1	7177	37.9
3	Chandpur	17842	9148	8694	16525	92.6	1317	7.4
4	Jagdala	19381	9937	9444	17712	91.4	1669	8.6
5	Bamangola	21134	10836	10298	13283	62.9	7851	37.1
6	Pakuahat	27871	14290	13581	21313	76.5	6558	23.5
	<b>Old Malda</b>	<b>131230</b>	<b>67592</b>	<b>63638</b>	<b>55379</b>	<b>42.2</b>	<b>75851</b>	<b>57.8</b>
1	Mahishbathani	24763	12755	12008	7690	31.1	17073	68.9
2	Bhabuk	19765	10180	9585	15859	80.2	3906	19.8
3	Jatradanga	21802	11228	10574	9555	43.8	12247	56.2
4	Mangalbari	13123	6759	6364	2995	22.8	10128	77.2
5	Sahapur	30007	15456	14551	8180	27.3	21827	72.7
6	Muchia	21770	11214	10556	11100	51.0	10670	49.0

Serial	Panchayat Samitis & Gram Panchayats	2001 Population	2001 Males	2001 Females	2001 SC/ST Population	% SC/ST	2001 Non-SC/ST Population	% Non-SC/ST
	<b>Englishbazar</b>	<b>226215</b>	<b>116371</b>	<b>109844</b>	<b>44777</b>	19.8	181438	80.2
1	Sovanagar	25109	12917	12192	1527	6.1	23582	93.9
2	Milki	23834	12261	11573	2726	11.4	21108	88.6
3	Binodpur	18252	9390	8862	4369	23.9	13883	76.1
4	Amriti	17133	8814	8319	1631	9.5	15502	90.5
5	Phulbaria	14238	7325	6913	3036	21.3	11202	78.7
6	Kazigram	27019	13900	13119	4997	18.5	22022	81.5
7	Jadupur 1	14575	7498	7077	2830	19.4	11745	80.6
8	Jadupur 2	15078	7756	7322	5901	39.1	9177	60.9
9	Mahadipur	20159	10371	9788	5718	28.4	14441	71.6
10	Kotwali	20979	10792	10187	9095	43.4	11884	56.6
11	Narhatta	29839	15347	14492	2947	9.9	26892	90.1
	<b>Manikchak</b>	<b>214123</b>	<b>110407</b>	<b>103716</b>	<b>26034</b>	<b>12.2</b>	<b>188089</b>	<b>87.8</b>
1	Nurpur	23126	11923	11203	3925	17.0	19201	83.0
2	Nazirpur	13043	6725	6318	1788	13.7	11255	86.3
3	Hiranandapur	18206	9388	8818	3707	20.4	14499	79.6
4	Mathurapur	23241	11983	11258	4074	17.5	19167	82.5
5	Gopalpur	14910	7688	7222	707	4.7	14203	95.3
6	Manikchak	22701	11706	10995	2134	9.4	20567	90.6
7	Chowki Mirdadpur	22568	11637	10931	2824	12.5	19744	87.5
8	Uttar Chandipur	25206	12997	12209	1789	7.1	23417	92.9
9	Dakshin Chandipur	19332	9968	9364	2096	10.8	17236	89.2
10	Dharampur	11857	6114	5743	415	3.5	11442	96.5
11	Enayetpur	19933	10278	9655	2575	12.9	17358	87.1
	<b>Kaliachak 1</b>	<b>310821</b>	<b>159919</b>	<b>150902</b>	<b>9554</b>	<b>3.1</b>	<b>301267</b>	<b>96.9</b>
1	Jaluabathal	21756	11192	10564	233	1.1	21523	98.9
2	Bamongram Mosimpur	20526	10559	9967	1	0.0	20525	100.0
3	Jalalpur	29826	15348	14478	3322	11.1	26504	88.9
4	Sujapur	29588	15225	14363	840	2.8	28748	97.2
5	Gaeshbari	22809	11734	11075	246	1.1	22563	98.9
6	Nawada Jadupur	31462	16187	15275	352	1.1	31110	98.9
7	Kaliachak 1	19883	10231	9652	634	3.2	19249	96.8
8	Kaliachak 2	24906	12817	12089	1549	6.2	23357	93.8
9	Alipur 1	21049	10828	10221	486	2.3	20563	97.7
10	Alipur 2	12326	6341	5985	376	3.1	11950	96.9
11	Mozampur	19009	9781	9228	51	0.3	18958	99.7
12	Alinagar	23952	12326	11626	814	3.4	23138	96.6
13	Silampur 1	15783	8119	7664	417	2.6	15366	97.4
14	Silampur 2	17946	9231	8715	233	1.3	17713	98.7
	<b>Kaliachak 2</b>	<b>211533</b>	<b>108955</b>	<b>102578</b>	<b>19373</b>	<b>9.2</b>	<b>192160</b>	<b>90.8</b>
1	Uttar Laxmipur	24367	12547	11820	125	0.5	24242	99.5
2	Mothabari	38679	19895	18784	1744	4.5	36935	95.5
3	Hamidpur	9779	5040	4739	1234	12.6	8545	87.4
4	Rajnagar	7719	3978	3741	809	10.5	6910	89.5
5	KB Jhowbona***	18152	9353	8799	271	1.5	17881	98.5
6	Uttar Panchanandapur 1	19805	10205	9600	849	4.3	18956	95.7
7	Uttar Panchanandapur 2	15305	7887	7418	2640	17.2	12665	82.8
8	Bangitola	22220	11450	10770	6903	31.1	15317	68.9
9	Rathbari	28021	14438	13583	4162	14.9	23859	85.1
10	Gangaprasad	27486	14162	13324	636	2.3	26850	97.7

Serial	Panchayat Samitis & Gram Panchayats	2001 Population	2001 Males	2001 Females	2001 SC/ST Population	% SC/ST	2001 Non-SC/ST Population	% Non-SC/ST
	<b>Kaliachak 3</b>	<b>284351</b>	<b>146919</b>	<b>137432</b>	<b>25563</b>	<b>9.0</b>	<b>258788</b>	<b>91.0</b>
1	Akandabaria	18412	9518	8894	2217	12.0	16195	88.0
2	Sahabajpur	16096	8311	7785	98	0.6	15998	99.4
3	Charianantapur	20488	10586	9902	1373	6.7	19115	93.3
4	Gopalganj	18541	9580	8961	1166	6.3	17375	93.7
5	Bhagabanpur	19772	10216	9556	741	3.7	19031	96.3
6	Krishnapur	26640	13764	12876	935	3.5	25705	96.5
7	Bedrabad	18748	9686	9062	2385	12.7	16363	87.3
8	Sahabanchak	16524	8538	7986	201	1.2	16323	98.8
9	Birnagar 1	18615	9618	8997	931	5.0	17684	95.0
10	Birnagar 2	21840	11284	10556	2033	9.3	19807	90.7
11	Laxmipur	26166	13519	12647	2839	10.8	23327	89.2
12	Kumbhira	22238	11491	10747	1643	7.4	20595	92.6
13	Bakhrabad	18857	9743	9114	4491	23.8	14366	76.2
14	Pardeonapur Sovapur	21414	11065	10349	4510	21.1	16904	78.9
	<b>Malda DT</b>	<b>3065768</b>	<b>1573955</b>	<b>1491813</b>	<b>744640</b>	<b>24.3</b>	<b>2321128</b>	<b>75.7</b>

\*\*\*Entire GP Area lost to subsequent erosion by the Ganga

Source: Census 2001



## **Chapter 2:** **Education in Malda District**



## Education in Malda District

### Proliferation of Modern Education

The preceding overview of Malda district from a historical and regional perspective has revealed several underlying constraints within its three ecological regions, namely the Tal, Barind and Diara, because of which these regions have experienced differential paths of development over the course of time. Such regional divergences are currently as evident in the patterns of human development within Malda today, as they are in the levels of economic advancement attained by different regions of the district. Human development concepts, however, extend beyond the economic peripheries of development to encompass knowledge-building processes that enlarge upon people's future choices and opportunities. By opening new horizons for human development, knowledge-building processes ultimately raise collective levels of economic and social well-being within society. Proliferation of education among the residents of the district is thus the key to expanding personal endowments and building individual capability, so that the physical and social barriers that

## Chapter 2

currently obstruct regional development within the district can be surmounted. Rising levels of education and literacy are thus among the primary instruments that can facilitate the human development process in Malda district.

The knowledge components through which human development can be measured include both *enabling* attributes such as the state of educational infrastructure, staffing and amenities, as well as standard *achievement* attributes which include literacy levels, enrolment rates and the accessibility of education. Analysis of relative differentials between the Malda blocks and urban units with regard to these educational attributes should naturally commence from a historical perspective on the growth of modern education in the district. Longterm growth of school education in Malda district and the relative rates of proliferation of education across the Malda blocks may both be assessed from information available in the DISE database on the dates of establishment of existing schools in the district.

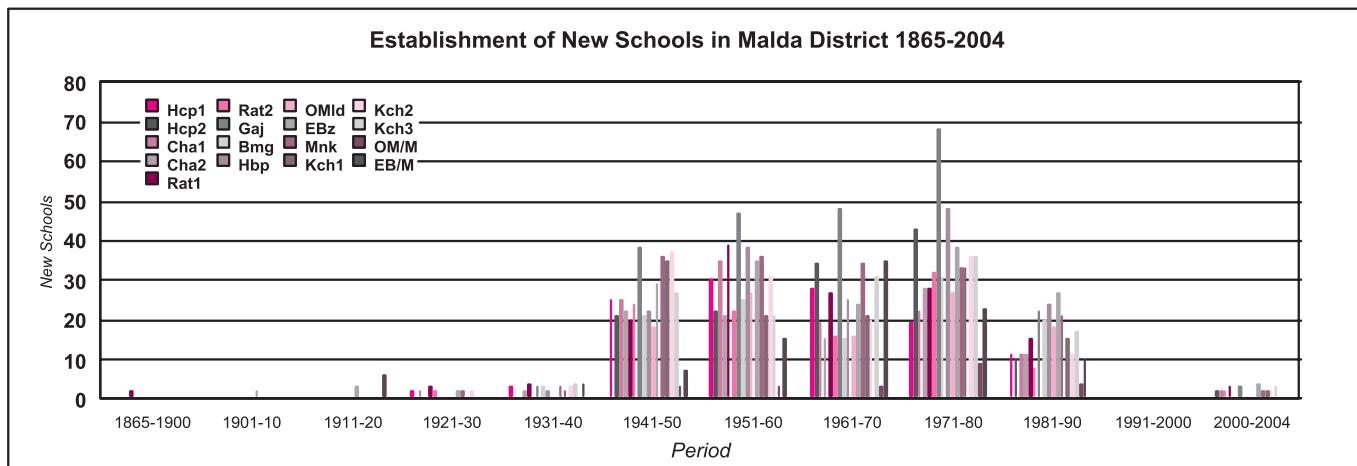
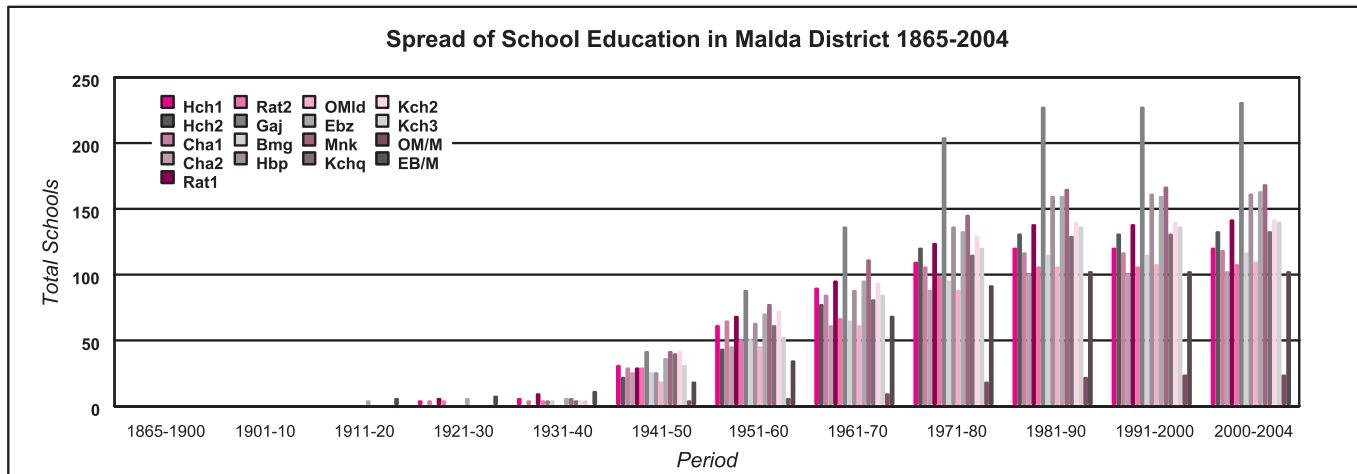
**Table: Spread of Public Education in Malda District 1865-2004**

Period	1865-1900	1901-1910	1911-1920	1921-1930	1931-1940	1941-1950	1951-1960	1961-1970	1971-1980	1981-1990	1991-2000	2000-2004	Date na	Total Schools
Harischandrapur 1	1	1	-	2	3	25	30	28	19	11	-	-	-	120
Harischandrapur 2	-	-	-	-	1	21	22	34	43	10	-	2	-	133
Chanchal 1	1	1	-	2	1	25	35	19	22	11	-	2	1	120
Chanchal 2	1	-	-	-	2	22	21	15	28	11	1	2	-	103
Ratua 1	2	1	-	3	4	20	39	27	28	15	-	3	1	143
Ratua 2	-	1	1	2	1	24	22	16	32	8	-	1	-	108
Gajol	-	-	1	-	3	38	47	48	68	22	1	3	-	231
Bamangola	-	1	-	-	3	21	25	15	31	20	-	1	-	117
Habibpur	-	-	1	-	2	22	38	25	48	24	1	-	-	161
Old Malda	-	-	-	1	-	18	27	16	27	18	1	1	-	109
Englishbazar	-	2	3	2	-	29	35	24	38	27	-	4	-	164
Manikchak	-	-	1	2	3	36	36	34	33	21	1	2	-	169
Kaliachak 1	1	1	-	1	2	35	21	21	33	15	1	2	-	133
Kaliachak 2	-	-	-	2	3	37	31	20	36	11	-	2	1	143
Kaliachak 3	-	-	-	1	4	27	21	31	36	17	-	3	-	140
Old Malda M	-	-	-	-	1	3	3	3	9	4	1	-	1	25
Englishbazar M	1	-	6	1	4	7	15	35	23	10	1	-	-	103
New Schools established	7	8	13	20	36	410	468	411	552	255	8	29	4	2221
Cumulative School Institutions	7	15	28	48	84	844	1620	2575	3732	4341	4371	2217	2221	22103

Source: DISE 2005-2006

The spread of modern public education in the district can be seen to be relatively recent. Although the presence of several traditional learning institutions in Malda had been reported by Francis Buchanan Hamilton during his visit to the region in 1810, public education formally commenced shortly after the formation of the district, with the establishment of two Government vernacular schools between 1856-57.

While continuing the existing policy of extending financial support to traditional *maqtabs* and *pathsalas* in the region, another public vernacular school was established by the colonial administration before 1870-71, in addition to the first English school of the district. Thereafter, from 1887, the newly-constituted District Board took over the responsibility of directing public education in Malda district.



As revealed in the pictorial charts, school education in Malda expanded progressively till 1951-1960, following which the rate of institutional growth in the district has slackened somewhat. Quite clearly, the bulk of school growth in the district occurred following Independence, during the period 1951-1980 when schools proliferated into all blocks of Malda district.

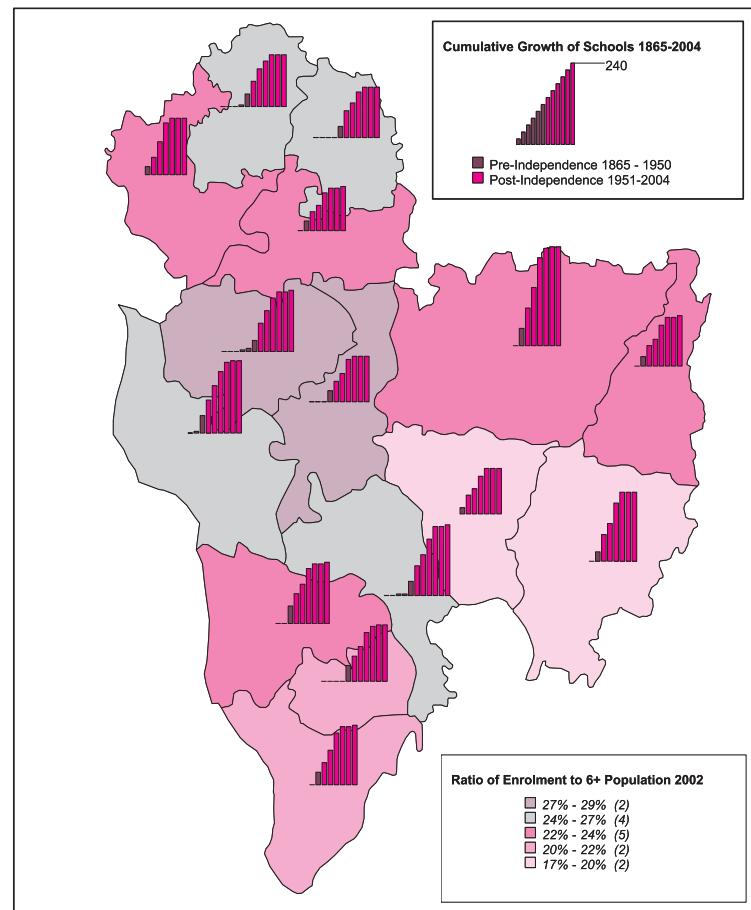
While Gajol has had the largest share in the cumulative number of schools established since 1951 - consistent with its being the largest CD block in the district with a population that has grown through steady migration, the rates of school proliferation in more densely populated blocks like Chanchal 2 or Ratua 2 have been considerably slower.

**Table: Spread of Public Education in Malda District 1865-2004**  
**Cumulative Growth of Schools**

Location	1865-1900	1901-1910	1911-1920	1921-1930	1931-1940	1941-1950	1951-1960	1961-1970	1971-1980	1981-1990	1991-2000	2000-2004
Harischandrapur 1	1	2	2	4	7	32	62	90	109	120	120	120
Harischandrapur 2	-	-	-	-	1	22	44	78	121	131	131	133
Chanchal 1	1	2	2	4	5	30	65	84	106	117	117	119
Chanchal 2	1	1	1	1	3	25	46	61	89	100	101	103
Ratua 1	2	3	3	6	10	30	69	96	124	139	139	142
Ratua 2	-	1	2	4	5	29	51	67	99	107	107	108
Gajol	-	-	1	1	4	42	89	137	205	227	228	231
Bamangola	-	1	1	1	4	25	50	65	96	116	116	117
Habibpur	-	-	1	1	3	25	63	88	136	160	161	161
Old Malda	-	-	-	1	1	19	46	62	89	107	108	109
Englishbazar	-	2	5	7	7	36	71	95	133	160	160	164
Manikchak	-	-	1	3	6	42	78	112	145	166	167	169
Kaliachak 1	1	2	2	3	5	40	61	82	115	130	131	133
Kaliachak 2	-	-	-	2	5	42	73	93	129	140	140	142
Kaliachak 3	-	-	-	1	5	32	53	84	120	137	137	140
Old Malda M	-	-	-	-	1	4	7	10	19	23	24	24
Englishbazar M	1	1	7	8	12	19	34	69	92	102	103	103
Cumulative School Institutions	7	15	28	48	84	494	962	1373	1925	2180	2188	2217

Source: DISE 2005-2006

This is brought out clearly in the associated map chart, which compares the growth of school institutions in different blocks of the district with current enrolment levels as a proportion to the block population. The cumulative patterns of school proliferation from the table above are represented as a series of bar-graphs for each block in the district. As can be seen below, Gajol, Habibpur and Englishbazar have experienced the fastest rates of educational proliferation over the period under consideration, followed to a lesser extent by Manikchak, Kaliachak 3 and Harischandrapur 2. Despite this, none of these blocks show remarkably high school enrolments in relative terms to their population. On the other hand, the highest enrolment levels in Malda district are recorded by Ratua 1 & 2, where the rate of proliferation of schools over the past century has been slower. Nevertheless, after 1980, the rates of school proliferation have slowed down sharply in all blocks, with hardly any additions being made subsequent to 1991, partially reflecting the crisis that has hit public education programmes in India after the decade of liberalisation.



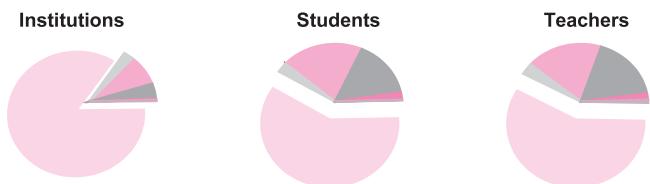
While it might be conjectured after the period of initially rapid growth between 1951-1980, school education may have reached a point of saturation in Malda that has rendered further expansion of the school infrastructure unnecessary, this is not borne out by the recent school enrolment patterns in the district which are displayed in the map. Wide variations in enrolments appear to exist between the Malda CD blocks. From the figures for aggregate school enrolment figures available from the 7<sup>th</sup> All-India Educational Survey conducted in 2002, the ratios of total school enrolments to the 6+ population touched high levels of 27-29 percent in the two Ratua blocks and were between 24-27 percent in Chanchal 1 & 2. Elsewhere in the district, however, enrolment levels were considerably smaller, touching their low of between 17-20 percent of the 6+ block population in Habibpur and Old Malda. Indicators like this establish that despite the proliferation of school infrastructure, access to education has not been equalised across the district, and that considerable enrolment deficits still prevail between the Malda CD blocks. Blocks like Gajol or Habibpur which have a very large number of school institutions do not in fact show the highest enrolment levels in the district. High school enrolments occur instead in blocks such as Ratua 1 & 2, or in the Manikchak-Englishbazar and Chanchal 1 & 2 belts which have a smaller number of school institutions but also show dense patterns of settlement. With the 6+ enrolment ratio for district as a whole amounting to around 21.5 percent in 2002, several blocks are still at a deficit. Since the corresponding ratio for West Bengal was 22.1 percent, the degree to which these blocks trail behind the rest of the state becomes easily evident. Clearly, such widely diverging patterns of school enrolment vis-à-vis school infrastructure in Malda district imply the existence of wideranging differences in school accessibility between the blocks. Focusing exclusively on rural schools, where this problem is likely to be most acute, the patterns of rural school accessibility revealed by recent largescale surveys in Malda district are explored next.

## Institutional Structure of Public Education

The institutional infrastructure for public education in Malda in 2002 comprised 2229 recognised institutions,

1882 of which were primary schools, 55 were middle schools and 194 were high schools. In addition, there were another 88 higher secondary schools and 15 collegiate and technical institutions in Malda. Among the recognised middle school and high school institutions, 48 traditional learning institutions comprised junior *madrasahs* and high *madrasahs*, with a collective enrolment of 24,252 students, 52 percent of whom were girls. Over 5.07 lakh students were enrolled upto secondary school levels in the district.

Category	Institutions	Students	Teachers
Primary	1882	362968	6244
U/Primary / Middle	55	16254	334
High School	189	128421	2099
HS	88	97021	1924
College	8	11755	179
Technical	7	959	83



However, although primary schools comprised more than four-fifths of all formal educational institutions in Malda, nearly 41 percent of the students enrolled at school institutions and 42 percent of the teachers in school service in the district in 2002 were studying or teaching at the post-primary stage. Nevertheless the base of primary education in the district was very large, with current enrolments of over 3.62 lakh students (or over 10 percent of the district population). Besides such formal learning institutions, 843 Sishu Siksha Kendras (SSKs) were providing non-formal learning opportunities to the out-of-school population of the district. Moreover, learning opportunities at pre-school stage were provided by 2090 ICDS (Anganwadi) centres.

When the Seventh All-India School Education Survey was conducted in 2002, there were 5239 human habitations or settlement clusters in Malda district. 705 of these rural settlements had no school institutions within cluster boundaries, amounting to 13.5 percent of all human habitations in Malda. However, the proportion of such school-less settlements was considerably higher in the Barind blocks of Gajol and Bamangola and was highest in Habibpur where more than a quarter of the rural settlements had no schools within their boundaries. While rural settlements in

Englishbazar block also had relatively few schools, the proximity of schools within the urban limits of Englishbazar municipality relieved this position at least partially. Conversely, settlements in Ratua 2, Harischandrapur 2 and Kaliachak 2 were much better endowed with schools, with 90 percent or more of the rural settlements being served by village schools. In regional terms, the Tal thus had best rural school accessibility followed by the Diara, while the Barind in its entirety still lagged behind considerably.

For realising the millennium goals of universal education and learning, the access of the rural population to formal education assumes critical importance. Thus such obvious access differentials between the Malda CD blocks need to be reviewed more closely.

## Access to Public Education

While urban literacy rates in Malda district were relatively high at over 79 percent in the 2001 Census, a vast literacy differential prevailed between urban and

rural areas, with rural literacy rates of less than 48 percent. Since human development specifically targets school enrolments, meaningful comparisons can thus be drawn between the distribution of primary and upper primary institutions across the Malda blocks and their current levels of school enrolments and rural literacy. This analysis which is accomplished in the set of regional maps below would also establish whether any recent progress is being made towards the removal of regional literacy and enrolment disparities.

Rural literacy rates vary quite substantially across the Malda CD blocks. In Chanchal 1, Bamangola and Kaliachak 1 – each in the Tal, Barind and Diara, respectively – rural literacy ranges between 54-56 percent. Rural literacy rates in the rest of the Barind blocks and in Ratua 2 and rural Englishbazar are between 48-54 %, implying that the Barind as a whole is more literate than the Tal or Diara, where the other blocks show lower literacy. Harischandrapur 2 and Kaliachak 3 show very low rural literacy of less than 44 percent.

**Table: Accessibility of Rural Schools in Malda District 2002**

CD Block	Total Village Habitations	Primary School in Village	Primary School within 1km	Primary School > 1km	U/Primary School in Village	U/Primary School within 3km	U/Primary School > 3km	Villages without any Schools
Harischandrapur 1	304	103	170	31	13	252	39	29
Harischandrapur 2	268	111	114	43	17	209	42	16
Chanchal 1	266	101	145	20	16	182	68	28
Chanchal 2	241	86	123	32	14	181	46	30
Ratua 1	333	120	196	17	22	272	39	33
Ratua 2	203	77	110	16	25	151	27	9
Gajol	882	217	456	209	27	452	403	130
Bamangola	445	106	276	63	7	292	146	63
Habibpur	635	151	397	87	12	280	343	166
Old Malda	336	95	212	29	10	221	105	43
Englishbazar	309	140	143	26	26	248	35	59
Manikchak	262	133	115	14	15	219	28	30
Kaliachak 1	290	107	170	13	40	226	24	18
Kaliachak 2	196	113	61	22	15	153	28	29
Kaliachak 3	269	111	137	21	22	171	76	22
<b>Malda DT</b>	<b>5239</b>	<b>1771</b>	<b>2825</b>	<b>643</b>	<b>281</b>	<b>3509</b>	<b>1449</b>	<b>705</b>

Source: *Seventh All-India Education Survey 2002*

Although rural literacy is collectively high across the Barind, the number of primary school institutions is large only in Gajol. Despite being highly literate, Bamangola in fact has few primary institutions and the

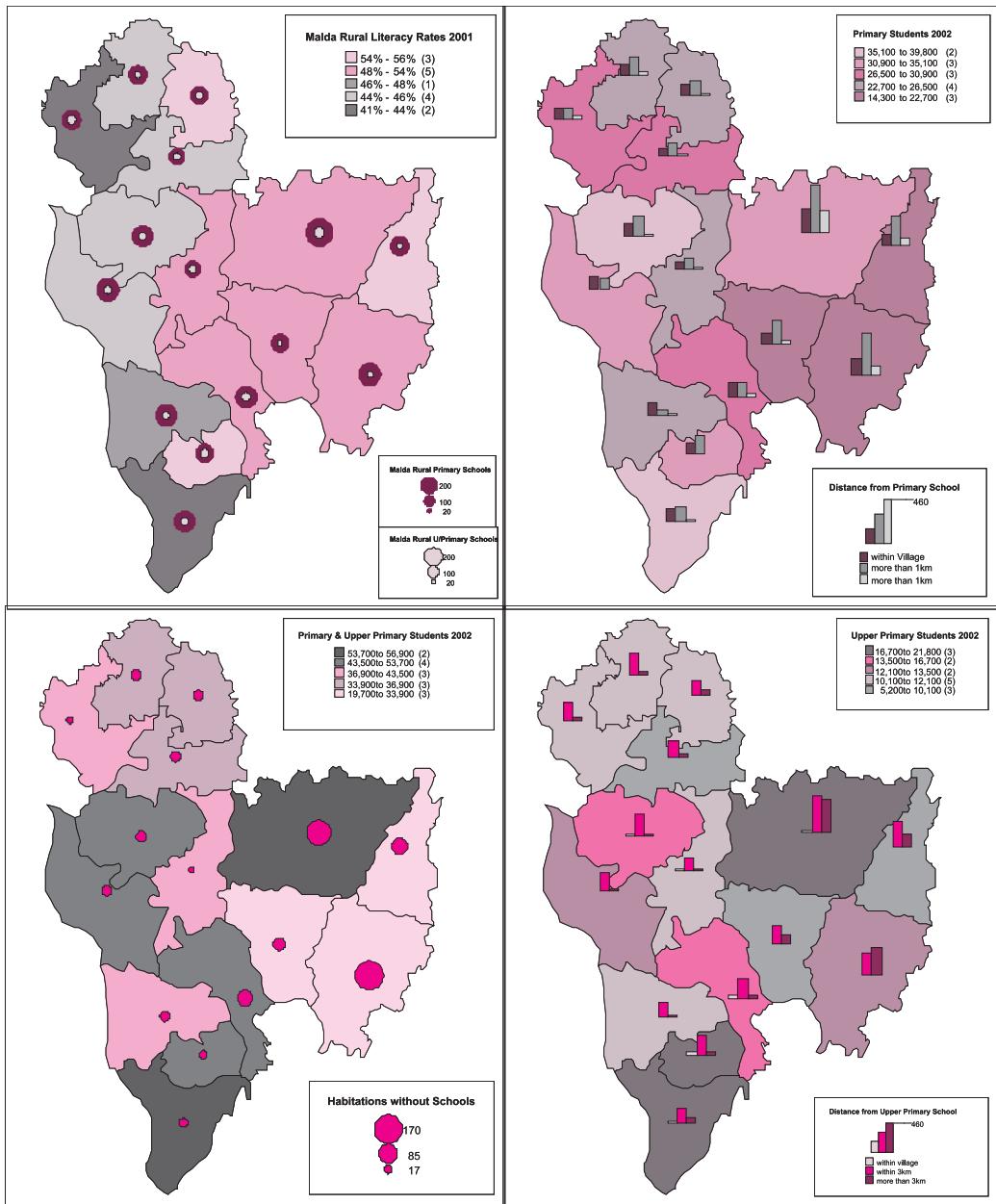
number of upper primary institutions is minimal. While Habibpur, in comparison, has more primary institutions but few upper primary institutions, Old Malda has relatively few primary schools and extremely

few upper primary schools. While several rural learners from Old Malda can avail of the schools located in urban Old Malda and Englishbazar, the needs of rural learners in Gajol, Bamangola and Habibpur are not covered by such proximity. Hence it would appear that apparently high rates of rural literacy in the Barind mask underachievement in terms of school-based rural education. Across the populous Diara blocks, the distribution of primary institutions is relatively even, despite wide variations within rural literacy. However except for Kaliachak 1 and Englishbazar, the proportion of upper primary institutions is low. The ratios of upper primary to primary school institutions show better balance across the Tal blocks, with the exception of Harischandrapur 1. Nevertheless, rural literacy rates vary widely across this region too. Thus the distribution of basic educational institutions across the Malda CD blocks is not consistent with the regional rates of literacy exhibited by the district. The upper primary schools which provide education at the critical Class 6-7 stage form the vital link between basic primary and high school education. Since their presence across the district is relatively low, this would imply that many rural learners enrolled at the primary stage cannot progress beyond that educational level because of the dearth of intermediate learning institutions.

Proximity to schools is another major factor that determines the accessibility of rural education. The next regional map compares gross enrolments at the primary level across the district to the commuting distances involved in getting to primary school. In sheer numeric terms, primary school enrolments are highest in Ratua 1 and Kaliachak 2, in each of which over 35 thousand primary students are enrolled. Primary enrolments are relatively high across the

other Diara blocks too, with the exception of Kaliachak 2, but are generally lower in the Tal blocks, regardless of the size of the blocks which would be a conditioning feature. In the Barind however, except for Gajol which has high enrolment primarily because of its size, rural primary enrolment levels are much lower when compared to the other Malda CD blocks. In *pro rata* terms, the Barind has a much larger proportion of villages where the distances involved in getting to primary school are upto 1 km, and Gajol, Bamangola and Habibpur have several more where the commuting distances exceed 1 km. In the Tal and Diara blocks, most primary school institutions are located within the village or within a radius of 1 km from it. Obviously, such locational differences play a major role in relation to the lower primary enrolment levels shown across the Barind. In two blocks, namely Manikchak and Kaliachak 2, the majority of rural settlements have primary school institutions within their boundaries, while the number of villages in Englishbazar which either have primary schools within them or within a radius of 1km from them is nearly equal. Nevertheless certain blocks in the Tal and Diara, such as Harischandrapur 1 & 2 or Englishbazar also have several settlements where the commuting distances involved in getting to primary school exceed 1km, so that the problem of having to walk a long distance to school – which is seen to be most severe in the Barind – occurs in certain other parts of the district too. In the blocks where this occurs, there is also strong likelihood that a certain proportion of school-age children either do not enrol or are unable to attend school regularly, because of difficulties of communication. Such differences in school accessibility are also in a large part responsible for existing educational disparities in Malda district.

### Chart : Regional Accessibility of Schools in Malda District



Ever since elementary education was bifurcated into primary and upper primary stages under the National Policy for Education [NPE] 1986, upper primary (i.e. middle) schools have been the crucial link enabling rural learners who graduate from the primary school system to aspire for the completion of secondary education. Being better endowed with teachers and educational infrastructure, they maintain educational standards that enable rural students to overcome social and cultural handicaps. However, since the number of upper primary institutions in Malda district is much smaller relative to the primary schools that form the base of the public

education system, analysis of the present enrolments and accessibility of upper primary institutions is a critical component in understanding human development problems in the different regions of the district. This forms the next point of focus for the current review.

Rural upper primary enrolments for Malda district as a whole presently constitute around 4.3 percent of total enrolments at the elementary stage, slightly short of the corresponding figure of 4.4 percent for West Bengal as a whole. A ratio of this low magnitude

provides some indication of the attrition in enrolments that takes place between the primary and upper primary stage, primarily because of the limited intake capacity of the upper primary school system. While this attrition is felt in all blocks of the district, Gajol and Kaliachak 1 & 3 record the highest upper primary enrolments, either because of large block-size, or because of high settlement density within the block. Certain changes can however be noticed vis-à-vis the scale of enrolments at the primary stage. In terms of rural primary enrolment, Habibpur is the lowest closely followed by Bamangola and Old Malda. However, when it comes to retention at the upper primary stage, Habibpur performs much better and moves ahead of Bamangola and Old Malda in terms of upper primary students enrolled. Conversely, Chanchal 2 shows lower levels of student retention at the upper primary stage, compared to relatively high primary enrolments. Apart from such minor readjustments, the patterns of primary and upper primary enrolments across the Malda blocks remain broadly similar. The Barind, as a whole, lags behind both in terms of primary and upper primary enrolments, while upper primary enrolments in the Diara are generally higher than in the Tal blocks.

The proximity analysis of upper school institutions however shows that the commuting distances in getting to school rise substantially between the primary and upper primary stage. Many upper primary schools in the Barind blocks are thus located 3 km or even further away from the habitations. The Tal and Diara blocks also offer evidence that the upper primary schools that presently exist in the district are largely located between 1-3 km away from the habitations they serve. While this is consistent with the small number of middle school institutions that presently serve in the district, it also points to one of the major educational bottlenecks in Malda district which currently limits its educational progress. 705 out of 5239 (nearly 13.5 percent) of the habitations in the district are not directly served by a local school within the habitation at present. The largest number of such school-less habitations are presently located in Habibpur, followed by Gajol. Low primary and upper primary enrolment in Habibpur thus probably occurs because many of its settlements are still underserved by schools, which is partially true also for Bamangola. However, despite having much higher enrolment, Gajol too appears to

be underserved by schools, thus identifying the Barind as a region of strong disparity in educational infrastructure. In contrast, educational access for the block populations resident in the Tal and Diara improves considerably, with Harischandrapur 2 and Ratua 2 having the smallest number of school-less habitations.

## State of Educational Infrastructure

Besides being expressed by the number of school institutions that serve current educational needs in Malda district and its CD blocks, the state of public education infrastructure is reflected in the structural quality and type of buildings that presently house these school institutions. The tables and graphs below show the distribution of school buildings, by type, across the CD blocks and Municipalities of Malda district at the time of the Seventh All-India School Education Survey in 2002. Of the three structural categories that designate building-type, both *pucca* and *semi-pucca* school buildings have a raised plinth, and schoolrooms with brick and concrete walls. However, while the *pucca* structures also have a concrete roof over them, *semi-pucca* school buildings are covered by GI sheets or corrugated asbestos, usually without a ceiling. Unlike permanent school buildings of this type, *kuchcha* school premises are makeshift and easily-dismantleable structures constructed from local materials like clay, thatch and bamboo, which also require regular maintenance. Building costs now form the most critical capital component of publicly funded education infrastructure. It is therefore usual for the composition of buildings to change with the different educational levels – while primary schools, being most numerous and also most widely distributed across the district, show the widest variation in building-type, the premises of schools at the secondary or high-secondary stage are more likely to be of *pucca* or permanent type. However, the distribution or building-types among the schools in the Malda blocks leads to well-informed analysis of the infrastructural strengths and weaknesses of public education in different parts of the district.

In 2002, 1951 out of 2222 school institutions or nearly 88 out of every 100 schools in Malda district provided elementary education, with the remaining few catering to secondary or higher secondary education. However, less than 3 out of every 100 schools provided elementary

education at the higher i.e. upper primary level. The capacity of the public education system to retain rural learners at its higher stages was thus extremely circumscribed by such infrastructural weaknesses, the impact of which showed up in urban and rural enrolments. Of the total enrolment of just over 5.7 lakh students in the district that year, more than one-third or 1.92 lakh students were enrolled at the secondary or higher secondary levels, to which most rural students who enrolled themselves at the primary stage could not aspire because of the weaknesses in the infrastructure for upper primary education. Out of gross enrolments of 5.7 lakh students in the district, the number studying at institutions located in the municipal areas of Englishbazar and Old Malda amounted to just over 0.83 lakh. However, since more than 0.52 lakh of the students admitted to city schools were pursuing secondary or higher secondary studies, the public education system in Malda district retained a strongly urban bias. Of 2222 school institutions in the district, a mere 129 or under 6 percent were city schools located within the municipal limits of Englishbazar and Old Malda. While 77 percent of these were elementary institutions, 23 percent provided education at the secondary or post-secondary stage.

In the presence of such strong urban biases within the public education system in the district, the ability of most rural students to educate themselves further depended on their economic ability either to commute or shift residence to the municipal cities. Thus for the vast majority of rural students, the portals to secondary education were effectively closed.

The urban bias of the school education system in Malda district also showed up clearly in the distribution of infrastructural facilities. Other than in elementary education - where 2 urban primary schools and 1 urban upper primary school were still operating from makeshift premises, most elementary schools and all secondary and higher schools in urban areas operated from permanent or semi-permanent building establishments. 7 out of every 10 urban elementary schools and 9 out of every 10 urban secondary or HS schools were housed in *pucca* building structures. In sharp contrast, nearly 5 out of every 10 rural elementary schools did not operate from *pucca* building premises. Thus in ratio-terms, nearly 3 out of every 10 rural elementary schools were still housed in semi-*pucca* structures while another 2 operated

from *kuchcha* school establishments or under other makeshift arrangements, including a total of 133 primary schools that were operating under the open-sky. Even at the secondary or higher secondary level, 8 rural secondary schools were still operating from *kuchcha* premises and nearly a third of the other rural secondary and HS institutions were still housed in semi-*pucca* structures.

The status of education infrastructure at block-level in Malda district is comprehensively outlined in the tables and charts below. The spatial spread of rural schools and educational infrastructure facilities across the district can also be best assessed by reference to the associated maps. In terms of rural enrolments over all educational levels, Gajol followed by Kaliachak 1 & 3 contribute the greatest number of rural school students, accounting collectively for over 1.5 lakh out of the 5.7 lakh students enrolled at educational institutions in the district. Following closely in their wake, Englishbazar, Ratua 1 and Manikchak blocks contributed another 1.33 lakh students, so that these 6 CD blocks collectively contributed over 50 percent of the current enrolment of students. While rural enrolments in the other Tal and Diara blocks maintained some contiguity with the enrolment patterns shown by the 6 major blocks, Bamangola, Habibpur and Old Malda - all located in the Barind - showed relatively low rural enrolments of 19-27 thousand students per block. While school institutions located in the composite urban complex of Englishbazar and Old Malda would be partially fulfilling the educational needs of Old Malda block, the same cannot be said of the two Barind blocks.

Because of its large geographical size, Gajol block also had the largest number of rural educational institutions in the district, corresponding to more than 10 percent of all school institutions in Malda district. Nearly two-thirds of these schools were operating from *pucca* buildings, 37 institutions were still housed in *kuchcha* structures and another 7 operated under open air. Kaliachak 1 & 3, in comparison, had only 5-6 percent of their schools operating from *kuchcha* structures, even though nearly half of their rural schools were still housed in semi-*pucca* premises. Elsewhere in the flood and erosion affected Diara, Manikchak and Kaliachak 2 blocks had a total of 47 schools operating under the open sky. Habibpur, far from the Ganga, had 17 such schools.

**Table: Basic School Infrastructure in Malda District 2002 (Building-Types)**

CD Block	Pucca Primary School building	Semi-Pucca Primary School building	Kuchcha Primary School building	Primary School held under Tent	Primary School held in Open-air	Pucca U/Primary School building	Semi-Pucca U/Primary School building	Kuchcha U/Primary School building
Harischandrapur 1	62	34	3	-	6	1	1	-
Harischandrapur 2	69	18	11	-	11	2	3	2
Chanchal 1	43	39	5	2	13	-	3	-
Chanchal 2	60	19	5	1	-	1	3	1
Ratua 1	83	26	1	-	8	1	1	2
Ratua 2	55	24	3	-	4	-	5	-
Gajol	136	25	28	-	7	3	-	4
Bamangola	46	25	32	-	2	-	-	-
Habibpur	37	52	33	2	17	-	-	-
Old Malda	48	37	13	-	2	1	2	-
Englishbazar	72	54	1	2	9	4	1	1
Manikchak	72	38	10	1	27	2	1	-
Kaliachak 1	32	63	7	-	7	-	4	1
Kaliachak 2	75	26	5	-	20	1	2	-
Kaliachak 3	69	44	6	-	-	3	1	1
Old Malda M	12	5	1	-	-	-	1	-
Englishbazar M	47	26	1	-	-	6	-	1
Kachu Pukur CT	1	1	-	-	-	-	-	-
Kendua CT	-	2	-	-	-	-	-	-
Aiho CT	2	-	-	-	-	-	-	-
Rural Malda	959	524	163	8	133	19	27	12
Urban Malda	62	34	2	-	-	6	1	1
Malda DT	1021	558	165	8	133	25	28	13

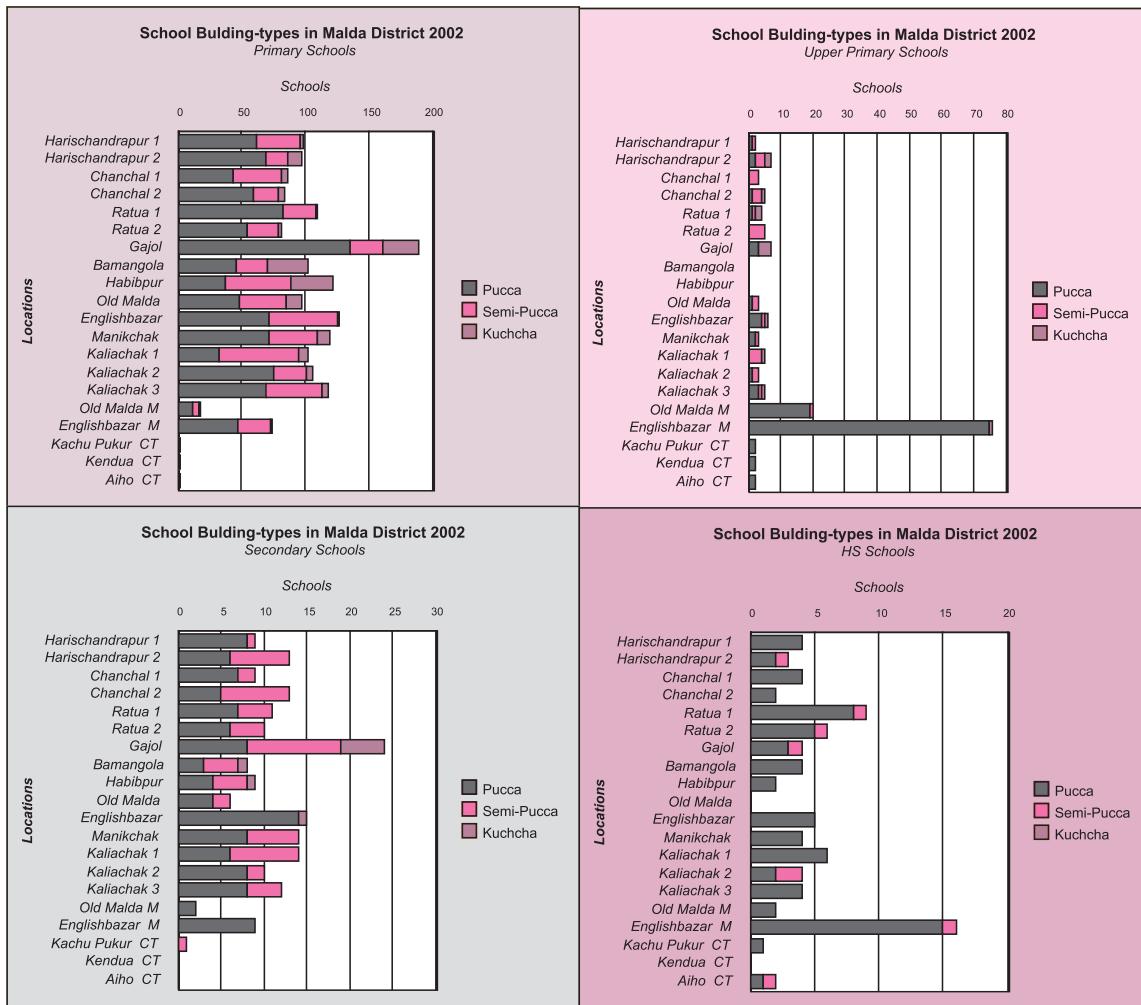
Source: *Seventh All-India Education Survey 2002***Table: Secondary/HS School Infrastructure in Malda District 2002 (Building-Types)**

CD Block	Pucca Secondary School building	Semi-Pucca Secondary School building	Kuchcha Secondary School building	Pucca HS School building	Semi-Pucca HS School building	Kuchcha HS School building
Harischandrapur 1	8	1	-	4	-	-
Harischandrapur 2	6	7	-	2	1	-
Chanchal 1	7	2	-	4	-	-
Chanchal 2	5	8	-	2	-	-
Ratua 1	7	4	-	8	1	-
Ratua 2	6	4	-	5	1	-
Gajol	8	11	5	3	1	-
Bamangola	3	4	1	4	-	-
Habibpur	4	4	1	2	-	-
Old Malda	4	2	-	-	-	-
Englishbazar	14	-	1	5	-	-
Manikchak	8	6	-	4	-	-
Kaliachak 1	6	8	-	6	-	-
Kaliachak 2	8	2	-	2	2	-
Kaliachak 3	8	4	-	4	-	-
Old Malda M	2	-	-	2	-	-
Englishbazar M	9	-	-	15	1	-
Kachu Pukur CT	-	1	-	1	-	-
Kendua CT	-	-	-	-	-	-
Aiho CT	-	-	-	1	1	-
Rural Malda	102	67	8	55	6	-
Urban Malda	11	1	-	19	2	-
Malda DT	113	68	8	74	8	-

Source: *Seventh All-India Education Survey 2002*

In broad regional terms therefore, where 6 out every 10 schools in the Tal as a whole were operating from *pucca* buildings, the proportion of such schools declined to under half in the Barind blocks. Although in the Diara too, the proportion of rural schools with *pucca* structures was just over half the total number of educational institutions, more than a third of the other schools had *semi-pucca* premises. Nearly a quarter of the rural schools

located in the Barind, on the other hand, had neither *pucca* nor *semi-pucca* accommodation and were operating from makeshift premises of various types. Moreover, since Gajol – the largest Barind block – accounted for over half of the *pucca* school buildings in the Barind, the relative positions of Bamangola, Habibpur and Old Malda were far worse than those prevailing in the other Malda CD blocks.



In terms of rural enrolments of students at the elementary stage, the regional differentials between the Tal, Barind and Diara were broadly similar. While Gajol accounted for a very large number of such students, primarily because of its size, Kaliachak 1 & 3, with densely settled populations, dominated rural elementary school enrolments in the Diara while Ratua 1 was the dominant block in the Tal. However, discernible changes in relative positions between primary and upper primary stages implied that the opportunities for rural students to pursue education

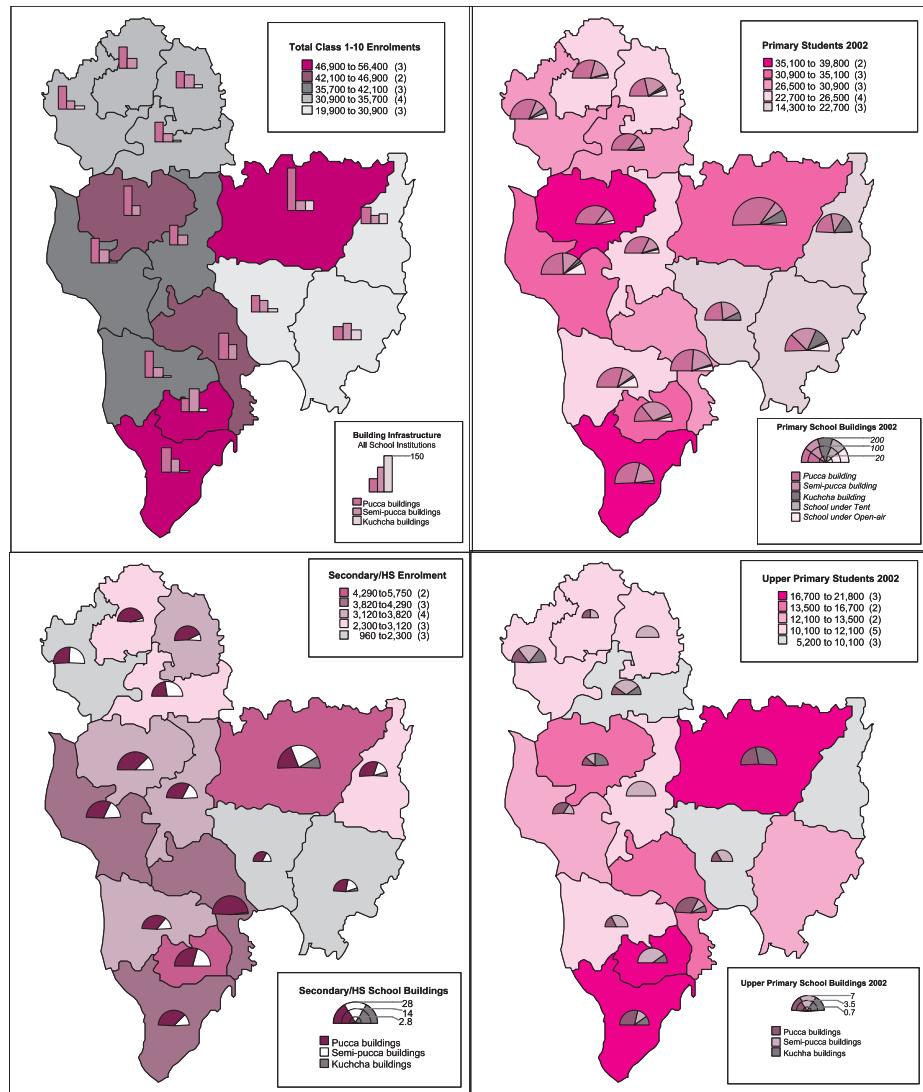
beyond the primary stage were restricted by the distribution of upper primary schools across the Malda CD blocks. Since the intake of rural students into post-primary education is limited by the intake capacity of upper primary schools, school enrolments at the secondary and higher secondary stage revealed much sharper polarisation across the blocks. Secondary and post secondary enrolments were thus relatively high in Gajol – because of its size – and also in the Diara blocks of Manikchak, Englishbazar and Kaliachak 1 & 3. Across most Tal blocks however,

secondary and HS enrolment was noticeably thinner, sinking to very low levels in Chanchal 2 and Harischandrapur 1 & 2. With Gajol as the only Barind block with high enrolment at this educational level, the other three blocks of the Barind showed the lowest enrolments in the district.

Primary schools accounted for the largest number of educational in Malda district. Except in Chanchal 1,

the number of primary schools operating in *pucca* buildings was relatively high in the Tal blocks. In Manikchak and Kaliachak 1, the number of schools working in *pucca* premises was noticeably lower than in the rest of the Diara blocks, while a number of primary schools in the erosion-prone Diara regions of Manikchak and Kaliachak 2 were running in makeshift arrangements under the open sky.

**Chart: Regional School Infrastructure in Malda District**



Gajol had many more primary schools with *pucca* school buildings than the other Barind blocks. Primary schools with *kuchha* premises too were mainly present in the four Barind blocks. Upper primary schools with *pucca* buildings were rare across the whole of Malda district. Despite their relatively small number, such

schools in most blocks were being run in *semi-pucca* structures. In several blocks in the Tal including Harischandrapur 2 and Ratua 1, as well as in Englishbazar and Kaliachak 1 & 3 in the Diara, a number of upper primary schools were operating in makeshift *kuchha* premises. While most upper primary

schools in Old Malda in the Barind had *semi-pucca* premises, the majority of such institutions in Gajol were operating in *kuchcha* buildings. According to the 7<sup>th</sup> All-India School Education Survey, Bamangola and Habibpur had no upper primary schools in 2002. Thus the students from these blocks who were studying at the middle school level appear to have been attending equivalent classes at existing high schools.

Most schools at secondary and post secondary level in the Malda blocks were operating either from *pucca* or *semi-pucca* premises. However in Harischandrapur 1 and Chanchal 1 in the Tal and in Englishbazar in the Diara, most school institutions at this level had already constructed *pucca* buildings. In Gajol on the other hand, most secondary & HS school buildings were either *semi-pucca* or *kuchcha* by type. Among the other Barind blocks, Bamangola, Habibpur and Old Malda all had larger proportions of secondary and HS schools housed in *pucca* premises, but still had one school each which was functioning in makeshift *kuchcha* arrangements. The persisting weaknesses of the public education system in the Barind – both in terms of student enrolment and school infrastructure – were thus abundantly clear.

## System Performance and System Load

The current operational status of school education in Malda district may now be examined in the light of the preceding review. Several features within the regional educational profile that are worth taking note of. Despite continuing identification of Malda as a low-literacy district, there has been a vast expansion of primary education facilities in the district in the aggregate. Substantial improvements in educational access and achievement have subsequently been recorded by the younger-aged segments of the district population, who are much more literate and educationally aware than previous generations. However, while there has been commendable growth of the educational system at its very base, these achievements weaken further up the educational scale. Widening at the base of the educational pyramid has not been accompanied by parallel expansion in upper primary and secondary education facilities. Thus the institutional infrastructure for post primary education is weak, both in terms of the number of educational institutions and in its intake capacity. The resulting educational bottleneck at the

upper primary stage is particularly limiting. Retention of rural learners within the educational system thus becomes a problem, for many of whom the path to knowledge advancement effectively ends at the primary stage.

The spatial characteristics of education system in Malda district also lead to unevenness in the provenance of educational facilities. Two aspects are discernible within this. Firstly, rural learners face much greater difficulties in securing educational access. Despite the large spread of the distict, there is pronounced concentration of secondary education facilities at urban locations, which creates educational differentials between urban and rural learners. Students from rural areas have to commute over progressively increasing distances or alternatively relocate their residence, if they seek to pursue education further. Effectively, this creates a pronounced educational divide between rural and urban sections of the district population. Secondly, the pronounced regional characteristics that distinguish the Tal, Barind and Diara in Malda also affect the spatial profile of education in the district. Educational facilities at all levels are unevenly spread across the CD blocks. The Barind region is the principal sufferer, and the border blocks of Bamangola and Habibpur are the most deprived. Since regional populations within the Tal, Barind and Diara are also culturally differentiated by underlying features such as religion and ethnicity, this spatial unevenness creates cultural differences within educational achievement. Tribal segments within the district population who reside primarily in the Barind, or the Muslim segments who are far less urbanised and reside mainly in the rural blocks of the Tal and Diara, thus show considerable educational backwardness, not because they are culturally unresponsive to education, but because the spatial regions where they reside in large numbers are educationally deprived.

The district of Malda is still primarily rural – urbanisation levels, for instance, are under 8 percent, both in terms of the proportion of urban households and in terms of urban population. 95 percent of the primary schools, 94 percent of the primary school teachers and 97 percent of the primary students in Malda are located in the rural CD blocks of the district. However, the divergence between these percentage ratios implies that considerable differentials

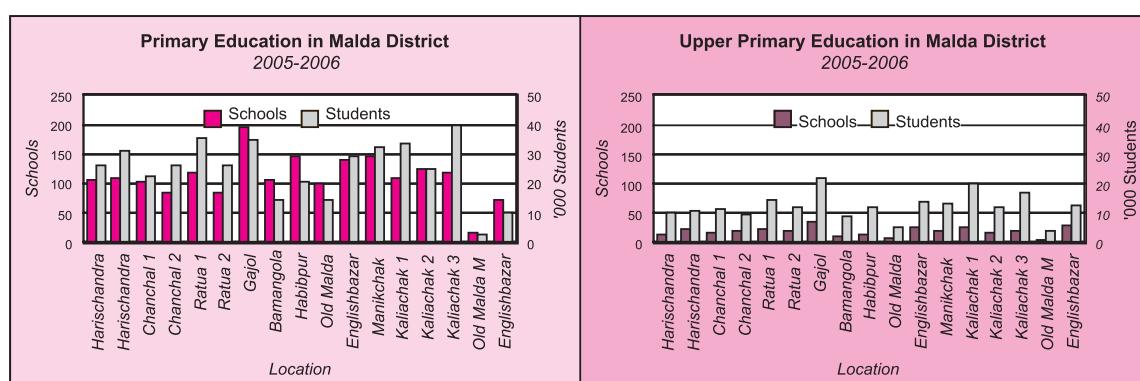
exist between rural and urban system loads within the primary education system, since the proportion of rural learners is obviously much larger than the number of primary teachers and institutions that address their educational needs. At the upper primary stage, the ratios dwindle further. Thus although, after attrition following the primary stage, rural learners now comprise 92 percent of all students enrolled at upper primary schools, their needs are served by under 90 percent of the district's upper primary institutions and teachers. Such proportions and percentage ratios do not however adequately outline the educational bottleneck between primary and upper primary stages, which – as noted earlier – has a profound impact on

the transition of rural learners to higher levels within the public education system. Currently, in *pro rata* terms, there is only 1 upper primary school for every 5.68 primary schools that exist in the district, and the associated ratio of upper primary to primary teachers is 1 : 2.33. Consequently, the total enrolment of upper primary students is less than half of the total students enrolled at the primary stage. Since the goal for the universalisation of elementary education under the Education for All [EFA] programme covers primary as well as upper primary education, the implications that such system bottlenecks have on the achievement of universal elementary education in Malda district must be fully comprehended.

**Table: Pattern of Basic Education in Malda District 2005-2006**

CD Block	Total Primary Schools	Total Primary Teachers	Trained Primary Teachers	Total Primary Students	U/Primary Schools	Total U/Primary Teachers	Total U/Primary Students
Harischandrapur 1	105	277	191	26478	15	120	10128
Harischandrapur 2	109	280	165	30877	24	176	10802
Chanchal 1	102	328	246	22747	17	128	11194
Chanchal 2	85	243	182	26512	19	128	9787
Ratua 1	119	392	283	35242	23	187	14719
Ratua 2	85	291	215	26158	21	163	12062
Gajol	196	546	348	35054	35	270	21784
Bamangola	105	268	148	14326	12	106	9078
Habibpur	147	403	233	20692	14	151	12341
Old Malda	100	338	208	14546	9	75	5233
Englishbazar	139	632	459	29456	25	179	14070
Manikchak	148	557	434	32182	21	166	13493
Kaliachak 1	109	431	286	33374	25	214	20310
Kaliachak 2	126	413	321	24869	17	133	12075
Kaliachak 3	119	352	246	39717	21	175	16703
Old Malda M	18	101	55	2964	5	44	4235
Englishbazar M	74	294	136	10225	29	221	12733
<b>Malda DT</b>	<b>1886</b>	<b>6146</b>	<b>4156</b>	<b>425419</b>	<b>332</b>	<b>2636</b>	<b>210747</b>

Source: DISE 2005-2006



**Table: System Load in Basic Education in Malda District 2005-2006***Ratio Analysis*

CD Block	Students per Primary School	Students per U/Primary School	Teachers per Primary School	Teachers per U/Primary School	Primary Student-Teacher Ratio	U/Primary Student-Teacher Ratio
Harischandrapur 1	252	675	2.6	8.0	96	84
Harischandrapur 2	283	450	2.6	7.3	110	61
Chanchal 1	223	658	3.2	7.5	69	87
Chanchal 2	312	515	2.9	6.7	109	76
Ratua 1	296	640	3.3	8.1	90	79
Ratua 2	308	574	3.4	7.8	90	74
Gajol	179	622	2.8	7.7	64	81
Bamangola	136	757	2.6	8.8	53	86
Habibpur	141	882	2.7	10.8	51	82
Old Malda	145	581	3.4	8.3	43	70
Englishbazar	212	563	4.5	7.2	47	79
Manikchak	217	643	3.8	7.9	58	81
Kaliachak 1	306	812	4.0	8.6	77	95
Kaliachak 2	197	710	3.3	7.8	60	91
Kaliachak 3	334	795	3.0	8.3	113	95
Old Malda M	165	847	5.6	8.8	29	96
Englishbazar M	138	439	4.0	7.6	35	58
<b>Malda DT</b>	<b>226</b>	<b>635</b>	<b>3.3</b>	<b>7.9</b>	<b>69</b>	<b>80</b>

Source: DISE 2005-2006

The DISE district-level database on school education in Malda district offers more contemporary information relating to the year 2005-06 on standard operating parameters in elementary education, including staff and student composition, as well as current system loads. These may be collated with the spatial profile of education in Malda district described above. The preceding regional analysis had indicated the presence of significant variations within the distribution of schools across the Tal, Barind and Diara. Similarly, although the magnitude of student enrolments differed considerably between the Malda blocks, these were not always consistent with the variations between block populations. Such variational patterns would imply also that system loads within the elementary education system vary considerably in different parts of the district. The impact that the present patterns of provenance of school institutions and teachers has on the educational profiles of the Malda CD blocks is revealed in the numbers and ratios in the tables. These are also charted visually in the set of bar diagrams below.

Primary schools in Malda are relatively compact institutions in the main with an enrolment of 226

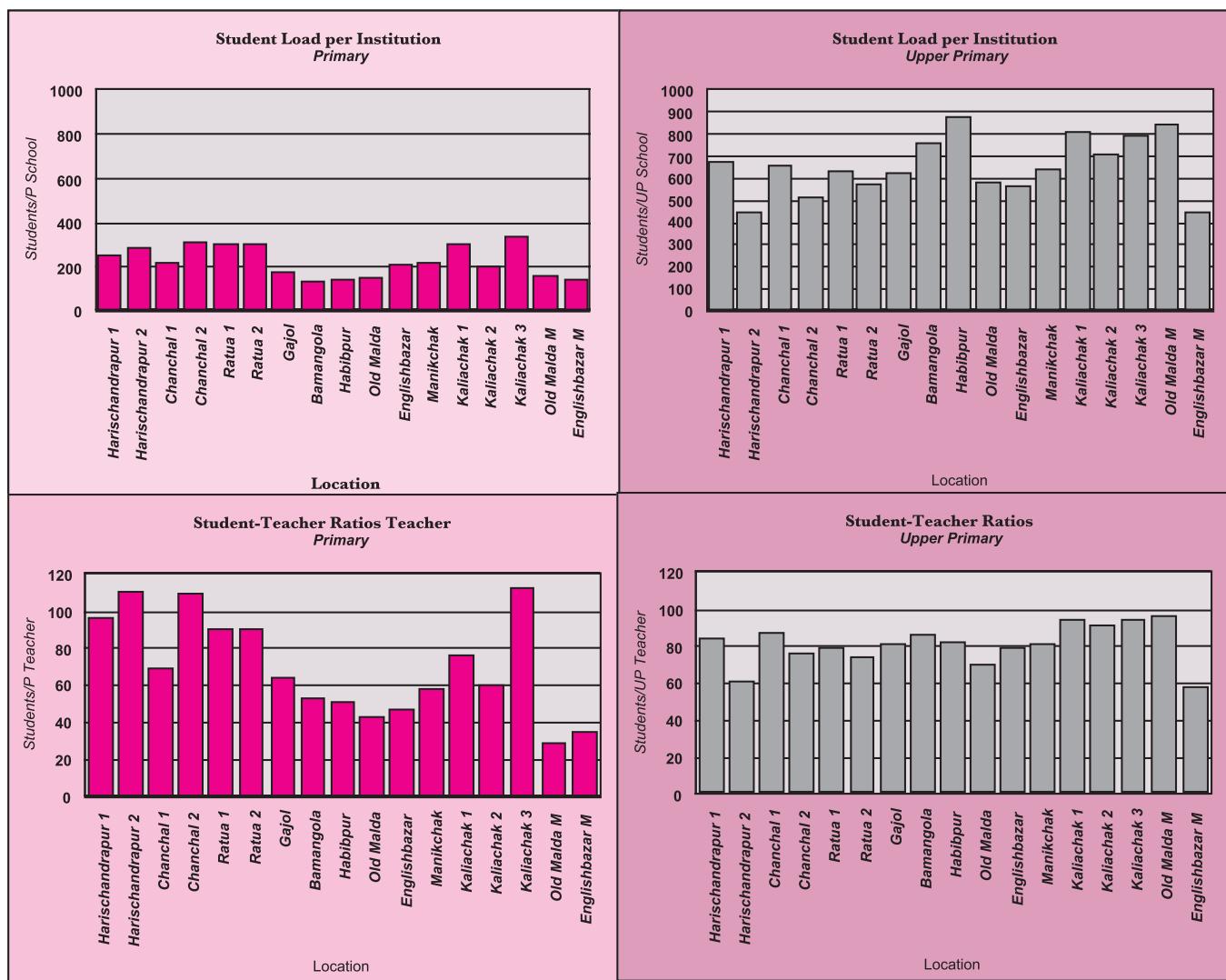
students per institution being the district norm. However, since the average institutional student load for the state of West Bengal as a whole in 2002 was 159 per primary school, the system load on primary schools in most Malda blocks greatly exceeds the average load in the state. Only the primary schools within the municipal limits of Englishbazar and those located in Bamangola, Habibpur and Old Malda in the Barind thus have student loads which are smaller than the average for the state. System loads are universally high through all blocks in the densely populated Tal, except in Chanchal 1 where these are marginally below the district average. However the highest student load on the primary education system occurs in Kaliachak 3, at a level more than two times higher than the average for the state.

Upper primary schools in Malda are notably larger institutions with an average student load of 635 per institution. Once again, this district average greatly exceeds the average system load at the upper primary stage for West Bengal, which in 2002 was just short of 280 per institution. The vast discrepancy between district and state averages again points to the severity

of the bottleneck within the elementary education system of the district, arising from the acute infrastructural mismatch between the number of primary schools and the number of upper primary institutions. However, considering also that sizeable sections among rural primary students are already excluded from upper primary education because of the limited intake capacity of the system, the true scale of the bottleneck between the primary and upper primary stages of the elementary education system in Malda is accordingly far more severe. Within the district, the lowest system loads in upper primary education are recorded by Harischandrapur 2 block and Englishbazar municipality. Elsewhere in the district, upper primary student loads universally exceed 500 per institution, with extremely high levels close to or exceeding 800 per institution being recorded in Habibpur, Kaliachak 1 & 3 and Old Malda municipality. Unlike in primary education where student loads are more comfortable in the Barind blocks than in the rest of the district, the corresponding system loads at upper primary level range from high to very high both in the Barind and the Diara. Among the Tal blocks, some alternation is seen with lower student loads being recorded in Harischandrapur 2 and Chanchal 2, against high levels in the rest of the region.

Such systemic differentials between institutional loads in the Malda CD blocks are also reflected in the pupil-teacher ratios [PTR] at the two stages of elementary education. Against the policy norm of 40 students per teacher in primary education, and national and state pupil-teacher ratios of 43.1 (India 2001) and 53 (West Bengal 2002) at the primary level, the corresponding district pupil-teacher ratio for Malda as a whole in 2005 was considerably higher, at 69 per thousand. In urban primary schools at Englishbazar and Old Malda

municipalities, however, the national norm was bettered, while PTRs in Englishbazar and Old Malda blocks were only marginally higher. Primary schools in the Tal blocks of Harischandrapur 2 and Chanchal 2, and Kaliachak in the Diara occupied the other extreme with PTRs considerably in excess of 100 per thousand – more than double the national norm. In regional terms, the Barind blocks generally had more compact student-to-teacher ratios. These were high in the Diara blocks and much higher in the Tal. Although the ratio of pupils to teachers is a measure of staffing adequacy within the primary education system, it is also influenced by opposite trends in enrolment. Thus the spurt in student enrolments that has escalated the system load on primary institutions in several blocks of the Tal and Diara is also matched by comparable escalation in student-teacher ratios. As seen in the table, the average number of primary teachers per institution across the Tal and the Diara is relatively high. Conversely, lower PTRs across the Barind blocks are not caused so much by an excess of primary teachers, but by relatively lower students enrolments compared to the other Malda blocks. Within this, the position of primary schools in the urban complex at Englishbazar and Old Malda appears to be unique. Staffing at these urban schools is much better than in the rural blocks, and student enrolments too are good. While being indicative of the pronounced rural-urban divide in the quality of educational provenance in Malda, such ratios also imply that the better quality of education attracts a certain proportion of students from close-by rural areas to these city schools. The overall impact is somewhat unfortunate though, since rural students living at greater distance from these urban centres cannot make this residential change, and are thus forced to crowd local institutions where staffing and infrastructure are already highly inadequate.



At the upper primary stage too, the weight of systems loads within the district are similar. The ratio of upper primary students to teachers for Malda as a whole, at 80 in 2005, greatly exceeded the national and state level PTRs of 38 (India 2001) and 50 (West Bengal 2002), again identifying the severity of the transitional bottleneck between primary and upper primary education. However, unlike the PTRs for primary education which vary widely between the Malda blocks, the student-to-teacher ratios in upper primary school institutions were far more consistent across the blocks. The highest ratios as such were consistently recorded across the three Kaliachak blocks and at urban upper primary institutions in Old Malda. With the exception of Harischandrapur 2 and urban Englishbazar which had notably low PTRs at the upper primary stage, most other Malda blocks had system loads very close to or just above the district average. Such apparent

divergences between the variability of primary PTRs and the consistency of upper primary PTRs indicates that variations in staffing in upper primary institutions are not that wide. Most institutions, with the notable exception of those at Gajol, have between 7-8 full-time teachers. Therefore the difference in PTRs across the Malda blocks is related more to the surfeit of upper primary students than to the paucity of teachers. Patterns of this kind also imply that the upper primary education system in the district as it presently exists, is unable to absorb the full load of students who leave primary institutions. In blocks where existing upper primary schools are compelled to carry extra weight, such as those in the Tal and in some parts of the Diara, the student load per institution is very high. However, since staffing in these institutions is proportionate to the number of students, the variability in PTRs is not quite so high.

However, when Malda is compared to India or to the state of West Bengal, the system loads on elementary educational institutions and teachers in the district are obviously immense. Although these reflect the paucity of schools and teachers relative to the number of students entering the educational system, they also indicate the positive trend of escalating enrolment. Thus in general, for the district as a whole, there appears to be no dearth of educational response from students in Malda to current educational initiatives. Instead, the response has been of such high magnitude that the existing infrastructure of schools and teachers has been unable to cope. Considering that very few new schools have been established in the district since 1990-91, a massive expansion within elementary education is needed. Indication is also obtained that the staffing shortages in the district elementary schools are even more severe than the dearth of institutions. Since maintenance of national norms for the staffing of elementary school institutions is the key to

improving the quality of public education, such dearths and shortages in staffing and institutions need to be urgently addressed.

## Availability of School Amenities

Besides the provision of rural school facilities with adequate teaching staff to encourage the enrolment of rural learners in Malda, another challenging task facing the district educational authorities has been to equip the very large number of rural schools that exist in the district with proper buildings and adequate classroom space, along with other basic requirements like drinking water and toilet amenities. A recent report from the school education authorities on 2377 educational institutions in Malda district shows that while progress in providing rural schools in the district with durable or *pucca* buildings has been fairly substantial on the whole, the quality of classrooms is far from adequate.

**Table : Building & Classroom Infrastructure of Malda Schools 2005**

	Schools with <i>Pucca</i> Buildings	Schools with <i>Kuchcha</i> Buildings	Schools without Buildings	Total Class-rooms	% Class-rooms in Good Condition	% Class-rooms needing Minor Repair	% Class-rooms needing Major Repair	Other School-rooms
Primary	1928	266	34	4869	43.8	21.5	34.7	1259
Upper Primary	108	38	3	314	26.6	30.4	43	118

Source: District School Education Department, Malda

A typical school having its own *pucca* or *kuchcha* building in Malda at primary or upper primary stage thus has between 2-3 school rooms, with at least 2 being used as classrooms in most cases. Depending on availability, if a third room exists, it may sometimes be used for other institutional or administrative purposes, particularly if the institution happens to be an upper primary school. In general comparative terms, since most primary schools have newer buildings, more of

their classrooms are in relatively good condition. Besides being highly inadequate in number, rural upper primary schools in the district have older buildings, a very large proportion of which are now in need of urgent repair. It would therefore appear that the expansion of primary education in Malda has been accomplished partly at the cost of inadequate maintenance of essential school infrastructure at older existing institutions. The need for such maintenance expenditure is now very high.

**Table: School Amenities in Malda District 2005-2006**

CD Block	Total Primary Schools	Primary Schools with D/Water	Primary Schools with Toilets	Primary Schools with no D/Water	% Schools without Drinking Water	Primary Schools with no Toilets	% Schools without Toilets
Harischandrapur 1	105	77	57	28	26.7	48	45.7
Harischandrapur 2	109	60	66	49	45.0	43	39.4
Chanchal 1	102	70	43	32	31.4	59	57.8
Chanchal 2	85	76	56	9	10.6	29	34.1
Ratua 1	119	80	66	39	32.8	53	44.5
Ratua 2	85	72	53	13	15.3	32	37.6
Gajol	196	174	177	22	11.2	19	9.7
Bamangola	105	90	48	15	14.3	57	54.3
Habibpur	147	127	125	20	13.6	22	15.0
Old Malda	100	90	86	10	10.0	14	14.0
Englishbazar	139	107	58	32	23.0	81	58.3
Manikchak	148	104	33	44	29.7	115	77.7
Kaliachak 1	109	80	73	29	26.6	36	33.0
Kaliachak 2	126	77	73	49	38.9	53	42.1
Kaliachak 3	119	95	58	24	20.2	61	51.3
Old Malda M	18	9	4	9	50.0	14	77.8
Englishbazar M	74	39	38	35	47.3	36	48.6
<b>Malda DT</b>	<b>1886</b>	<b>1427</b>	<b>1114</b>	<b>459</b>	<b>24.3</b>	<b>772</b>	<b>40.9</b>

Source: DISE 2005-2006

Despite being better endowed in terms of buildings and classrooms, nearly one in four primary schools in Malda district still do not provide their students with drinking water facilities and more than two in every five primary schools do not have basic toilet facilities. In certain blocks such as Harischandrapur 2, Kaliachak 2, Ratua 1 and Chanchal 1, the proportion of rural primary schools without drinking water facilities is considerably higher, but across the Barind blocks, the position is comparatively better. Surprisingly, a very high proportion of urban primary schools located at Old Malda and Englishbazar municipalities do not provide their students with drinking water facilities. Even though the urban child generally lives closer to the school and can be provided drinking water to carry to school from his or her home, this is by no means a satisfactory position since it adds to the burden each child must carry every day to and from school.

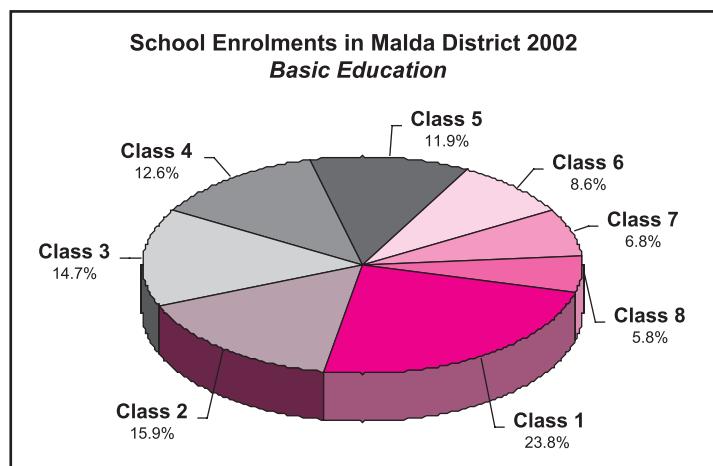
Gajol appears to be the only Malda block where

substantial progress has been made in providing primary schools with toilet amenities. Less than 10 percent of the primary institutions there have yet to provide toilet facilities. However, while the position is comparatively adequate also in the Barind blocks of Old Malda and Habibpur, it continues to be rather poor in Bamangola block where over five out every ten schools still do not offer toilet amenities. While primary schools in the Tal blocks are generally worst off collectively, in terms of the provision of toilet facilities, the worst position among rural schools in this respect occurs at Manikchak block. Fewer than three out of every ten primary schools there have a provision for toilet amenities. Once again, surprisingly, the position of urban primary institutions in Old Malda and Englishbazar municipalities is much worse than in most rural blocks. In Old Malda city, not even three out of every ten urban primary institutions offer basic toilet facilities.

**Table: Enrolment Patterns in Basic Education in Malda District 2005-2006**

CD Block	Total Enrolment Class 1	Total Enrolment Class 2	Total Enrolment Class 3	Total Enrolment Class 4	Total Enrolment Class 5	Total Enrolment Class 6	Total Enrolment Class 7	Total Enrolment Class 8
Harischandrapur 1	11147	5993	5357	3981	3704	2689	2054	1681
Harischandrapur 2	11716	8030	6414	4717	3798	2779	2265	1960
Chanchal 1	8420	5024	4897	4406	3905	3014	2257	2018
Chanchal 2	11779	5719	5180	3834	3450	2644	2050	1643
Ratua 1	11216	8516	8581	6929	5370	4005	2925	2419
Ratua 2	10799	5948	5070	4341	4178	3203	2591	2090
Gajol	10032	8710	8924	7388	7810	5723	4531	3720
Bamangola	4697	3492	3205	2932	3124	2451	1830	1673
Habibpur	6573	4779	4985	4355	4906	2930	2446	2059
Old Malda	4472	3458	3388	3228	1887	1266	1142	938
Englishbazar	9586	7280	6529	6061	5369	3690	2746	2265
Manikchak	10528	8173	7298	6183	5208	3361	2736	2188
Kaliachak 1	10273	8091	7790	7220	7607	5250	4041	3412
Kaliachak 2	8508	5973	5439	4949	4280	3206	2393	2196
Kaliachak 3	17493	8588	7353	6283	6082	4474	3361	2786
Old Malda M	638	742	704	880	1430	1105	935	765
Englishbazar M	3238	2436	2392	2159	3874	3053	2980	2826
<b>Malda DT</b>	<b>151115</b>	<b>100952</b>	<b>93506</b>	<b>79846</b>	<b>75982</b>	<b>54843</b>	<b>43283</b>	<b>36639</b>

Source: 7th AIES 2002



## School Enrolment & Dropout Trends

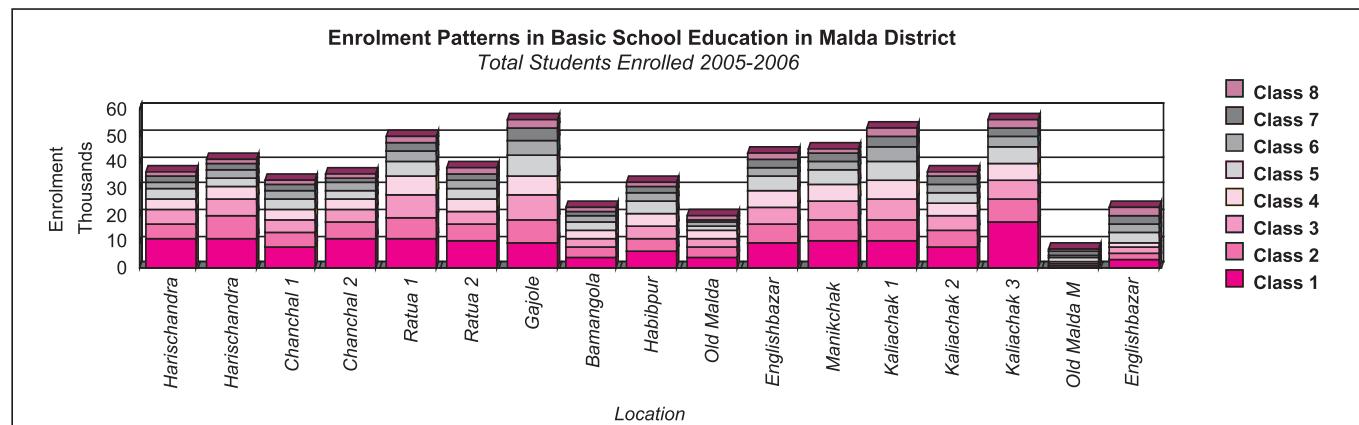
Of the total school enrolments of 6.36 lakh students at the basic stage of education between classes 1-8 in the year 2002, over 5.01 lakh students (78 percent) were enrolled at primary stage and approximately 1.35 lakh students (22 percent) at upper primary stage. Thus class-wise school enrolments showed a pronounced taper from a total of 1.51 lakh (23.8 percent) students enrolled at Class 1 stage to 0.37 lakh

(5.9 percent) enrolled at Class 8 stage. While a fall-off in enrolments of this magnitude points to the seriousness of the school dropout problem in Malda district, the preceding analysis of current school infrastructure in the district suggests that dropouts during the basic educational stages may not always be voluntary, but are caused by inadequacies of buildings and classroom space, and also because of the overall inadequacy of upper primary institutions to absorb the stream of learners who satisfactorily complete primary education.

**Table: Class-wise Enrolment Proportions at Basic Education Stages in Malda District 2005-2006**

CD Block	Total Enrolment Class 1-8	% Class 1 Enrolment	% Class 2 Enrolment	% Class 3 Enrolment	% Class 4 Enrolment	% Class 5 Enrolment	% Class 6 Enrolment	% Class 7 Enrolment	% Class 8 Enrolment
Harischandrapur 1	36606	30.5	16.4	14.6	10.9	10.1	7.3	5.6	4.6
Harischandrapur 2	41679	28.1	19.3	15.4	11.3	9.1	6.7	5.4	4.7
Chanchal 1	33941	24.8	14.8	14.4	13.0	11.5	8.9	6.6	5.9
Chanchal 2	36299	32.4	15.8	14.3	10.6	9.5	7.3	5.6	4.5
Ratua 1	49961	22.4	17.0	17.2	13.9	10.7	8.0	5.9	4.8
Ratua 2	38220	28.3	15.6	13.3	11.4	10.9	8.4	6.8	5.5
Gajol	56838	17.7	15.3	15.7	13.0	13.7	10.1	8.0	6.5
Bamangola	23404	20.1	14.9	13.7	12.5	13.3	10.5	7.8	7.1
Habibpur	33033	19.9	14.5	15.1	13.2	14.9	8.9	7.4	6.2
Old Malda	19779	22.6	17.5	17.1	16.3	9.5	6.4	5.8	4.7
Englishbazar	43526	22.0	16.7	15.0	13.9	12.3	8.5	6.3	5.2
Manikchak	45675	23.0	17.9	16.0	13.5	11.4	7.4	6.0	4.8
Kaliachak 1	53684	19.1	15.1	14.5	13.4	14.2	9.8	7.5	6.4
Kaliachak 2	36944	23.0	16.2	14.7	13.4	11.6	8.7	6.5	5.9
Kaliachak 3	56420	31.0	15.2	13.0	11.1	10.8	7.9	6.0	4.9
Old Malda M	7199	8.9	10.3	9.8	12.2	19.9	15.3	13.0	10.6
Englishbazar M	22958	14.1	10.6	10.4	9.4	16.9	13.3	13.0	12.3
<b>Malda DT</b>	<b>636166</b>	<b>23.8</b>	<b>15.9</b>	<b>14.7</b>	<b>12.6</b>	<b>11.9</b>	<b>8.6</b>	<b>6.8</b>	<b>5.8</b>

Source: 7th AIES 2002



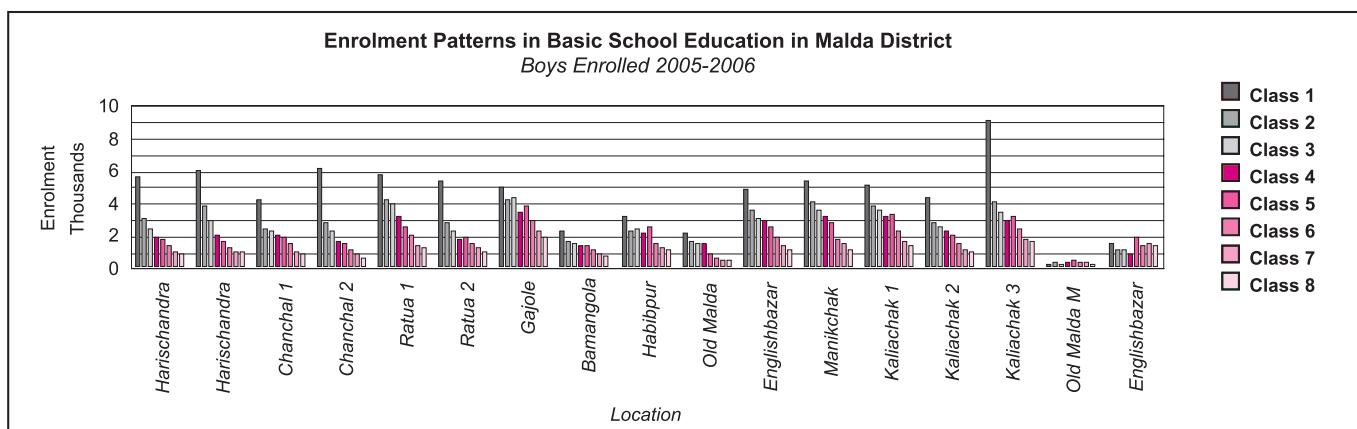
The blockwise positions with respect to the enrolment stages recorded in the tables above can be comprehended more easily from the associated barchart which shows the classwise enrolment positions for every Malda block. Overall, either because of large block size or because of high density of settlement, the largest blockwise enrolments of students occurs in Kaliachak 3 and Gajol blocks, exceeding 0.56 lakh students in both cases. However, while a much larger proportion of this figure represents Class 1 enrolments at the primary stage in the case of Kaliachak 3, the

total student enrolments in Gajol are balanced more evenly across the subsequent classroom stages, as a result of which total basic school enrolments in Gajol block lengthen out substantially. Obviously, this also reflects better retention of learners within the school system in Gajol block, when compared to Kaliachak 3 block. Most Malda blocks however record very high Class 1 enrolments followed by a sharp drop off in enrolments at subsequent classroom stages, showing that learner retention is still a major problem in the district.

**Table: Enrolment of Boys in Basic Education in Malda District 2005-2006**

CD Block	Boys Enrolled Class 1	Boys Enrolled Class 2	Boys Enrolled Class 3	Boys Enrolled Class 4	Boys Enrolled Class 5	Boys Enrolled Class 6	Boys Enrolled Class 7	Boys Enrolled Class 8
Harischandrapur 1	5750	3096	2560	1932	1923	1441	1099	920
Harischandrapur 2	6056	3915	2988	2059	1779	1311	1101	1042
Chanchal 1	4337	2478	2363	2063	1942	1561	1121	988
Chanchal 2	6247	2847	2394	1720	1547	1155	907	766
Ratua 1	5778	4296	4047	3265	2662	2105	1525	1333
Ratua 2	5445	2826	2357	1923	2038	1602	1287	1078
Gajol	5035	4285	4363	3569	3927	3066	2384	1974
Bamangola	2365	1684	1584	1488	1538	1200	907	841
Habibpur	3258	2361	2563	2190	2611	1617	1346	1192
Old Malda	2270	1692	1607	1543	980	684	618	540
Englishbazar	4908	3623	3132	2954	2687	2025	1529	1229
Manikchak	5434	4138	3607	3272	2873	1909	1572	1262
Kaliachak 1	5172	3963	3675	3323	3445	2430	1784	1477
Kaliachak 2	4430	2913	2627	2384	2140	1608	1189	1107
Kaliachak 3	9155	4151	3581	3060	3253	2498	1883	1668
Old Malda M	313	386	296	420	637	471	449	374
Englishbazar M	1559	1200	1214	1024	2047	1504	1540	1456
<b>Malda DT</b>	<b>77512</b>	<b>49854</b>	<b>44958</b>	<b>38189</b>	<b>38029</b>	<b>28187</b>	<b>22241</b>	<b>19247</b>

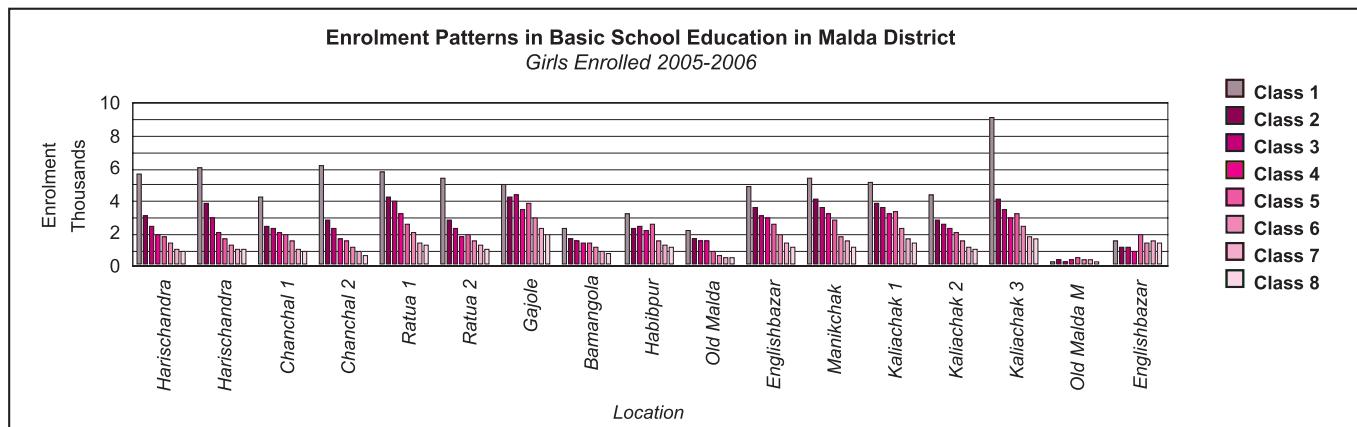
Source: 7th AIES 2002



**Table: Enrolment of Girls in Basic Education in Malda District 2005-2006**

CD Block	Girls Enrolled Class 1	Girls Enrolled Class 2	Girls Enrolled Class 3	Girls Enrolled Class 4	Girls Enrolled Class 5	Girls Enrolled Class 6	Girls Enrolled Class 7	Girls Enrolled Class 8
Harischandrapur 1	5397	2897	2797	2049	1781	1248	955	761
Harischandrapur 2	5660	4115	3426	2658	2019	1468	1164	918
Chanchal 1	4083	2546	2534	2343	1963	1453	1136	1030
Chanchal 2	5532	2872	2786	2114	1903	1489	1143	877
Ratua 1	5438	4220	4534	3664	2708	1900	1400	1086
Ratua 2	5354	3122	2713	2418	2140	1601	1304	1012
Gajol	4997	4425	4561	3819	3883	2657	2147	1746
Bamangola	2332	1808	1621	1444	1586	1251	923	832
Habibpur	3315	2418	2422	2165	2295	1313	1100	867
Old Malda	2202	1766	1781	1685	907	582	524	398
Englishbazar	4678	3657	3397	3107	2682	1665	1217	1036
Manikchak	5094	4035	3691	2911	2335	1452	1164	926
Kaliachak 1	5101	4128	4115	3897	4162	2820	2257	1935
Kaliachak 2	4078	3060	2812	2565	2140	1598	1204	1089
Kaliachak 3	8338	4437	3772	3223	2829	1976	1478	1118
Old Malda M	325	356	408	460	793	634	486	391
Englishbazar M	1679	1236	1178	1135	1827	1549	1440	1370
<b>Malda DT</b>	<b>73603</b>	<b>51098</b>	<b>48548</b>	<b>41657</b>	<b>37953</b>	<b>26656</b>	<b>21042</b>	<b>17392</b>

Source: 7th AIES 2002



The gender characteristics of enrolment at different stages of basic education represented in the tables and charts above are discussed more elaborately later in this report. In summary terms, all blocks in Malda district show high to very high rates of enrolment at the Class 1 stage for both boys and girls, which in itself is commendable. Subsequent to the Class 1 stage however, classwise enrolments show a sharp taper down in all Malda blocks, both for boys and girls. Since, in the light of the preceding discussion, there are several inadequacies in the school system of the district at present, including overall shortage of schools, a mismatch between the numbers of primary and upper

primary institutions, and problems of school accessibility particularly at the upper primary stage, this would suggest that the high Class 1 enrolments in Malda district actually overstretch the existing school infrastructure beyond its true capacity to absorb learners. Blockwise averages for Class 1 enrolments in the district thus range between low figures of around 44 pupils per primary institution in the Barind blocks of Bamangola, Habibpur and Old Malda and 52 pupils in Gajol, to very high figures ranging from 106-138 pupils per primary school in Harischandrapur 1 & 2, Chanchal 2 and Ratua 2 in the Tal region, which are obviously well beyond the true intake capacity of

these primary institutions. The highest average Class 1 intake of pupils across the district, occurs in Kaliachak 3 block, where an average of over 147 pupils are enrolled per primary institution at the Class 1 stage. With such high enrolment levels that surpass the true retention capacity of basic school institutions, dropouts at the later stages of school education become inevitable, and reflect system inadequacies as much as voluntary desires on the part of rural learners to forego

school education at later classroom stages. As can be seen from the barcharts, only a few blocks, like Bamangola or Chanchal 2 for instance, show better retention rates at the later classroom stages of basic education. Classwise enrolment patterns at urban schools in Old Malda and Englishbazar municipalities show marked variance, with no visible signs of the taper down between Class 1-8 stages, which is so characteristic of Malda's rural schools.

**Table : Estimated School Dropout Rates in Malda District 2006**

Malda Region	Total Primary Students	% Students completing Primary Education within 4 years	% Students repeating a class at Primary level	% Students dropping out of Primary School
TAL Blocks	6774	28.34 %	66.16 %	26.57%
BARIND Blocks	3564	46.01%	32.88 %	34.79 %
DIARA Blocks	9210	35.50 %	26.33 %	51.14%

Source: *District School Education Department, Malda*

Direct estimates of school dropout rates at sub-district level are difficult to come by in any region of India. However, a departmental study of dropouts and retention rates on a cohort of 19,456 students drawn from selected primary institutions in Malda district reveals the regional patterns outlined above. With primary school facilities being fairly adequate in the Barind region, where the pupil loads on existing primary institutions are also lower, more primary students on the average are able to complete their first 4 years of elementary schooling without dropping a year. In the Tal blocks in contrast, where the system loads on primary institutions are considerable, repetition rates are substantially higher than in other regions of Malda district. Dropout rates are particularly high in the Diara blocks and exceed 51 percent overall. Consequently, completion rates are lowest in this region. The reasons usually cited for non-completion of elementary schooling by many children in the Diara – particularly in the Kaliachak region – are related to high levels of assetlessness and rural poverty in the region, and also to the availability of alternate livelihood activities such as *biri* binding, which

absorb a large number of child workers. Regional studies have revealed that illiterate families do not encourage children to 'waste' time in schools. For girl children in particular, the practice of early marriage is another prominent reason for non-completion of schooling. School completion rates are notably higher in the Barind region, which has noticeable impact on regional literacy rates which are among the highest in Malda district. High school enrolment rates in the Tal region accompanied by low rates of school dropout indicate growing awareness about the importance of formal school education. However, since the existing primary school system in the region is able to meet the resulting student pressure rather inadequately, repetition rates are very high in the region and completion rates are low. In most parts of Malda district where rural illiteracy had previously been relatively high, most primary students are first-generation learners for whom the quality of education and teacher attention provided by the system is essential to their learning. However, because of system inadequacies and the escalating student load, their learning experience proves to be difficult.

**Table : Retention Patterns at Primary & Upper-Primary Stages of School Education in Malda District**

**2005-2006**

CD Block	Class 1-4 Total Enrolment	Class 1-4 Boys Enrolled	Class 1-4 Girls Enrolled	Class 1-4 Proportion of Girls Enrolled [%]	Class 5-8 Total Enrolment	Class 5-8 Boys Enrolled	Class 5-8 Girls Enrolled	Class 5-8 Proportion of Girls Enrolled [%]
Harischandrapur 1	26478	13338	13140	49.6	10128	5383	4745	46.9
Harischandrapur 2	30877	15018	15859	51.4	10802	5233	5569	51.6
Chanchal 1	22747	11241	11506	50.6	11194	5612	5582	49.9
Chanchal 2	26512	13208	13304	50.2	9787	4375	5412	55.3
Ratua 1	35242	17386	17856	50.7	14719	7625	7094	48.2
Ratua 2	26158	12551	13607	52.0	12062	6005	6057	50.2
Gajol	35054	17252	17802	50.8	21784	11351	10433	47.9
Bamangola	14326	7121	7205	50.3	9078	4486	4592	50.6
Habibpur	20692	10372	10320	49.9	12341	6766	5575	45.2
Old Malda	14546	7112	7434	51.1	5233	2822	2411	46.1
Englishbazar	29456	14617	14839	50.4	14070	7470	6600	46.9
Manikchak	32182	16451	15731	48.9	13493	7616	5877	43.6
Kaliachak 1	33374	16133	17241	51.7	20310	9136	11174	55.0
Kaliachak 2	24869	12354	12515	50.3	12075	6044	6031	49.9
Kaliachak 3	39717	19947	19770	49.8	16703	9302	7401	44.3
Old Malda M	2964	1415	1549	52.3	4235	1931	2304	54.4
Englishbazar M	10225	4997	5228	51.1	12733	6547	6186	48.6
<b>Malda DT</b>	<b>425419</b>	<b>210513</b>	<b>214906</b>	<b>50.5</b>	<b>210747</b>	<b>107704</b>	<b>103043</b>	<b>48.9</b>

Source: DISE 2005-2006

Some insights into the nature of involuntary or structural dropouts between different stages of school education can be obtained from comparison of enrolments between primary and upper primary levels. Total student enrolments in Malda district during the first four years of schooling at the primary stage collectively amounted to 4.25 lakh, which was more than double compared to total enrolments of 2.11 lakh students during the next four years of schooling at the upper primary stage. Assuming that enrolments at the upper stages were to the full capacity of the school system, this would imply that only 1 out of every 2 children who initially enrol with the school system at Class 1 can hope to progress through the subsequent primary classroom stages and complete eight years of basic education, as envisaged under the Education For All [EFA] programme. In itself, this structural block is extremely high. The differential impact that such structural ;dropouts' have on girls' education in the district is also immediately apparent from the table. Where girls marginally outweigh boys in terms of total Class 1-4 enrolments, with approximately 2.15 lakh girls

being enrolled with the formal school system against 2.11 lakh boys, these proportions get reversed during the Class 5-8 stage where the total enrolment of girls amounts to 1.03 lakh against 1.08 lakh for boys. Consequently the overall proportion of girls enrolled drops from 50.5 percent during Class 1-4 to 48.9 percent during the Class 5-8 stage.

The relative position of girls and boys in stagewise enrolments at block level is more complex. All blocks in the Tal, with the exception of Harischandrapur 1, show Class 1-4 enrolments of girls that are higher than the corresponding enrolments for boys. Ratua 1, in fact, records 52 percent enrolment of girls during the Class 1-4 stage, which is the highest enrolment for rural regions in the district. In most Barind blocks, the Class 1-4 enrolment of girls averages just over 50 percent, and just under 50 percent in case of Habibpur block, indicating that primary enrolment patterns in the Barind blocks resemble each other rather closely. The Diara blocks show greater variability, with Manikchak recording under 49 percent enrolment of girls at the Class 1-4 stage which is the lowest rate within the

district. In contrast, Class 1-4 enrolment of girls in Kaliachak 1 block touches nearly 52 percent, potentially because of higher dropout among boys—since at Class 1 stage, the enrolment of boys is higher than that of girls in Kaliachak 1 block, with 5173 boys being enrolled against 5101 girls in Class 1.

While in most Malda blocks, a moderate to sharp decline is noticed in the proportionate enrolment of girls at the Class 5-8 stage, Harischandrapur 1 and Bamangola show a marginal increase in the proportion of girls enrolled at Class 5-8 stage. The increase is much more than marginal in Kaliachak 1 block and is strongest in Chanchal 2, where the enrolment of girls at Class 5-8 stage rises proportionately to 55.3 percent against 50.2 percent enrolment of girls at the Class 1-4 stage. In the rest of the district, where the proportionate enrolments of girls declines between the primary and upper primary stages, the highest order of decline occurs in Kaliachak 3 block where the enrolment of girls falls from the proportionate level of 49.8 percent at Class 1-4 stage to only 44.3 percent at the Class 5-8 stage. However, the lowest proportionate enrolment of girls at the Class 5-8 stage occurs at Manikchak, also in the Diara.

For municipal areas, the overall patterns differ sharply from those of rural areas. Firstly, the decline between total enrolments at Class 1-4 and Class 5-8 stages is reversed. Thus, at schools in Old Malda municipality, aggregate enrolments expand sharply from 2964 students at Class 1-4 stage to 4235 students at Class 5-8 stage, obviously because of the phenomenon of rural students migrating or commuting to the city to pursue upper primary education. In Englishbazar municipality too, the expansion is sharp from a gross enrolment of 10,225 students at Class 1-4 stage to 12,733 students at Class 5-8 stage. However, while the proportion of girls students in Old Malda municipality increases from 52.3 percent to 54.4 percent between Class 1-4 and Class 5-8 stages, the corresponding proportions decline from 51.1 percent to 48.6 percent in Englishbazar municipality.

## Private Education in Malda District

Although the population of Malda district depends overwhelmingly on public education institutions for

meeting its current learning needs, a fairly substantial number of private or unaided schools exist in all blocks of the district, which operate within different infrastructural and resource constraints, compared to the public education system. While several of the unaided private schools that are located within city limits or at certain urbanised block headquarters, etc., typically extend the educational options available to urban children by providing the opportunity for English-medium nursery and elementary education, this is not true for all such schools. A fairly significant number of unaided schools in Malda's rural areas are either 'organised' schools run privately by the community, or unaided *madrasahs* and mission schools, depending upon the region where they are located and the cultural communities that predominate these regions. As such, besides imparting general education, they play a cultural role seen as vital by the communities that utilise them. Recent information pertaining to private schools from the DISE database may be compared to the parameters of the public education system to assess the relative strengths and weaknesses of the private school system.

Although the 437 private schools located at various places in Malda comprise around one-fifth of all school institutions in Malda district, they currently absorb less than 8 percent of all students enrolled in the district, illustrating the overall importance that public institutions still have in meeting the educational needs of the people. On the average, each primary school institution is of a relatively small size, with an average of around 95 students enrolled per institution, against the average of 265 students enrolled at all school institutions in the district. The low figure is primarily because most unaided private schools cater to elementary education, and offer nursery or primary educational facilities. However, in terms of staffing norms, there are marked differences between private and public institutions. As a result, while private schools have an average of 6.63 teachers per institution, the average for all school institutions in the district is 4.26 teachers per institution. Since overall enrolment of students are also substantially lower at private institutions, the pupil-teacher ratios [PTRs] for private school institutions improve substantially to around 14.4 pupils per teacher, against the PTR of 62.1 for all educational institutions in Malda district on the whole. Obviously, because such staffing ratios are much more favourable, the quality of

education provided by private schools to the few pupils who can afford to pay their heavier educational charges is often better than that available through public institutions.

Although private education has now spread to all Malda blocks, it plays a more significant role in certain blocks compared to others. In Kaliachak 1 in the Diara for instance, private schools comprise nearly 38 percent of all school institutions in terms of their number, compared to around 27 percent of all school institutions in Kaliachak 3, just under 16 percent in Englishbazar block, and between 7-9 percent in Manikchak and Kaliachak 2. However, in terms of their proportionate share of students, private schools only play a significant role in Kaliachak 1, where they absorb around one fourth of all enrolled students. Among the blocks in the Tal region of Malda, private institutions in

Harischandrapur 2 comprise more than a quarter of all school institutions and around 16 percent in Harischandrapur 1 block. In Ratua 2, they comprise more than 28 percent of all school institutions and around 15 percent in Ratua 1. In Chanchal 1 & 2, their presence is less significant. In the Barind region, private schools have a significant presence in Gajol block, where they account for over 26 percent of all school institutions. Their presence in the other Barind blocks is less significant. In terms of their absorption of students, however, private schools have a significant presence only in Harischandrapur 2 in the Tal region where they absorb around one tenth of all enrolled students, and in Gajol in the Barind where they absorb 16 percent of all enrolled students. Elsewhere through the district, their role in the direct absorption of students ranges from small to marginal.

**Table : Private & Public Education in Malda District**

CD Block	Total Primary Schools	Total Secondary Schools	Total HS Schools	Total Schools	Total Private Schools	Total School Teachers	Total Private School Teachers	Total School Students	Total Private School Students
Harischandrapur 1	105	9	4	118	19	404	139	25580	1761
Harischandrapur 2	109	13	3	125	34	542	179	35671	3753
Chanchal 1	102	9	4	115	9	446	70	30932	945
Chanchal 2	85	13	2	100	12	950	63	45480	1468
Ratua 1	118	11	9	138	20	889	134	56392	2421
Ratua 2	86	10	6	102	29	517	182	26739	2263
Gajol	196	24	4	224	59	443	340	32461	5185
Bamangola	105	8	4	117	12	486	102	35245	1351
Habibpur	147	10	3	160	12	800	92	51823	1258
Old Malda	100	6	0	106	11	612	69	37848	630
Englishbazar	138	15	5	158	25	588	174	46944	2962
Manikchak	148	14	4	166	12	823	86	42091	1025
Kaliachak 1	109	14	6	129	46	423	333	19904	4971
Kaliachak 2	126	10	4	140	13	700	104	46164	1808
Kaliachak 3	119	12	4	135	37	563	179	36854	3072
<b>Malda DT</b>	<b>1885</b>	<b>189</b>	<b>80</b>	<b>2154</b>	<b>437</b>	<b>9186</b>	<b>2898</b>	<b>570128</b>	<b>41612</b>

## Ratio Analysis

CD Blocks	Average Teachers per School	Average Teachers per Private School	Average Students per School	Average Students per Private School	General Pupil Teacher Ratio	Pupil-Teacher Ratio at Private Schools
Harischandrapur 1	3.42	7.32	217	93	63.3	12.7
Harischandrapur 2	4.34	5.26	285	110	65.8	21.0
Chanchal 1	3.88	7.78	269	105	69.4	13.5
Chanchal 2	9.50	5.25	455	122	47.9	23.3
Ratua 1	6.44	6.70	409	121	63.4	18.1
Ratua 2	5.07	6.28	262	78	51.7	12.4
Gajol	1.98	5.76	145	88	73.3	15.3
Bamangola	4.15	8.50	301	113	72.5	13.2
Habibpur	5.00	7.67	324	105	64.8	13.7
Old Malda	5.77	6.27	357	57	61.8	9.1
Englishbazar	3.72	6.96	297	118	79.8	17.0
Manikchak	4.96	7.17	254	85	51.1	11.9
Kaliachak 1	3.28	7.24	154	108	47.1	14.9
Kaliachak 2	5.00	8.00	330	139	65.9	17.4
Kaliachak 3	4.17	4.84	273	83	65.5	17.2
<b>Malda DT</b>	<b>4.26</b>	<b>6.63</b>	<b>265</b>	<b>95</b>	<b>62.1</b>	<b>14.4</b>

Source: 7th AIES & DISE combined

Nevertheless, because of the unique cultural character of many of these unaided school institutions such as *madrasahs*, they shall continue to play an adjunct role to the public education system over times to come. Since the district of Malda - because of its large and growing population - suffers from an overall dearth of schools, it is possible for many of the unaided schools to be upgraded in future to the status of fully-fledged district school institutions, within an appropriate framework of Government incentives and regulation. The willingness of the community to defray a part of the costs of education at such schools is also noteworthy, because it represents an alternate means by which the resources for the public education system in the district could be raised.

## Non-Formal Education in Malda

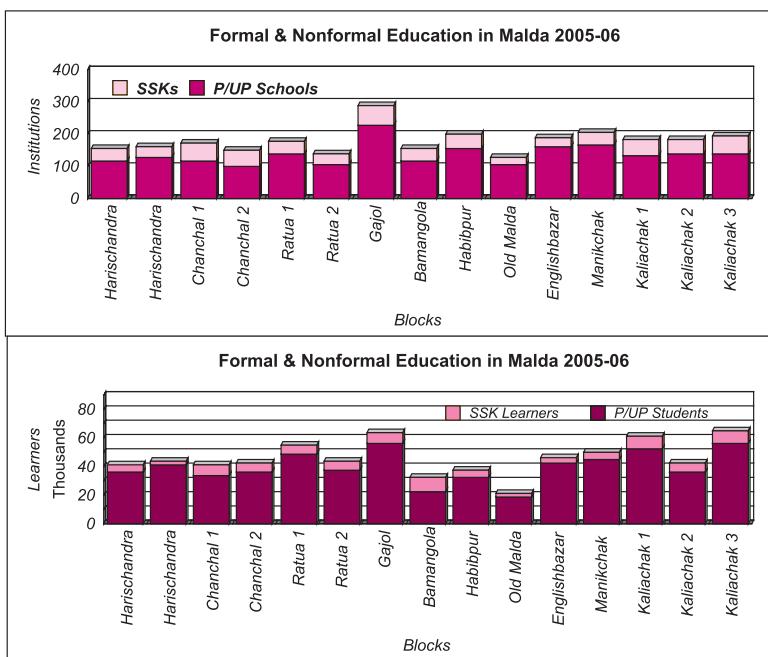
Because of the presence of a significant number of out-of-school children in Malda district caused by the

overall dearth of schools, and because of high rates of rural educational dropout during the early years of schooling, non-formal education programmes such Shishu Shiksha Abhiyan have come to the fore as a means for improving retention of learners within the public education system till the years of basic schooling are over. Two recent attempts at extending the outreach of non-formal education programmes in Malda have been made with the establishment of a large number of Shishu Shiksha Kendras [SSKs], followed consecutively by establishment of Madhyamik Shiksha Kendras [MSKs] for learners who had earlier graduated from the SSKs. Functioning outside the normal ambit of formal school education, the SSKs and MSKs operate in a flexible mould that allows education to reach many rural learners at their doorstep and to adapt timings, etc., to meet the special needs of learners such as working children, who may have other time or work commitments.

**Table: Enrolment in Formal & Non-Formal Rural Institutions in Malda District 2005-2006**

CD Block	Total Primary & U/Primary Schools	Total Primary & U/Primary Students	Total Shishu Shiksha Kendras [SSKs]	Regular Enrolment at SSKs	Total Learners attending SSKs	Average Learners per SSK
Harischandrapur 1	120	36606	38	4538	5190	137
Harischandrapur 2	133	41679	29	3720	3137	108
Chanchal 1	119	33941	54	7207	8207	152
Chanchal 2	104	36299	47	5236	6751	144
Ratua 1	142	49961	36	5466	6158	171
Ratua 2	106	38220	33	4578	5885	178
Gajol	231	56838	61	6977	7613	125
Bamangola	117	23404	39	3416	9385	241
Habibpur	161	33033	39	4237	4494	115
Old Malda	109	19779	21	2894	2653	126
Englishbazar	164	43526	25	2880	3506	140
Manikchak	169	45675	38	4838	5126	135
Kaliachak 1	134	53684	52	7585	7896	152
Kaliachak 2	143	36944	45	6165	6209	138
Kaliachak 3	140	56420	57	5008	9221	162
<b>Malda DT</b>	<b>2092</b>	<b>606009</b>	<b>614</b>	<b>74745</b>	<b>91431</b>	<b>149</b>

Source: DISE 2006-2006 & District Mass Education Department, Malda



As evident above, nonformal educational institutions now have a significant presence in all blocks in Malda district, with 614 rural SSKs providing additional educational support to 2092 rural primary and upper primary schools that currently operate in the district. Against 6.06 lakh pupils presently enrolled in formal school institutions, the SSKs account for an additional enrolment of 74,745 learners on a regular basis while also extending their services beyond this number, to a

total of 91.431 learners overall. Thus, while each formal school institution in Malda is able to accommodate approximately around 290 students, each SSK extends nonformal educational opportunities to another 149 learners on the average, among children who had previously been out-of-school. Viewed from this perspective, the task being performed currently by the SSK network in Malda district is indeed commendable.

Given the large size of the block and its overall remoteness, the largest cluster of SSKs is currently located in Gajol, which also has the largest number of formal primary and upper primary schools. In the Tal region, the number of SSKs is particularly high in Chanchal 1& 2 blocks, and in all three Kaliachak blocks in the Diara. Regular enrolments of learners at SSKs however touch notably higher levels at Kaliachak 1 and Chanchal 1, despite the overall number of SSKs being fewer in these blocks. In all Malda blocks, the excess of actual learners served by each SSK over those formally enrolled with it as regular learners, reflects an unmet need for nonformal education in the concerned blocks. Each SSK in Bamangola, for instance, currently records actual attendance by 241 learners against the low average enrolment of 88 learners per SSK. In Kaliachak 3 too, which already has 57 SSKs, the actual number of learners attending each SSK is much higher than 88 learners formally enrolled with each SSK on the average, also making out a case for the establishment of more SSKs in the block. Throughout the Tal blocks, with the exception of Harischandrapur 2, the excess of actual learners over those enrolled with the SSKs is consistently high, establishing that unmet needs for nonformal education are highest in the region. This is also consistent with the very high rates of school enrolment and high PTR ratios seen earlier in the Tal region, and the high rates of repetition or non-completion of formal schooling in the region, because of the crowding of the primary and upper primary school system.

This raises certain fundamental questions regarding the future role of the nonformal institutions established under the Shishu Shiksha Abhiyan, which currently fill a critical gap between learner demands and the availability of formal learning opportunities in Malda district. At present, the SSKs are non-permanent institutions, which mask the dearth of formal school institutions in many parts of Malda district. The currently high demand for formal and nonformal educational opportunities in the district does not represent the cohort effect of having a relatively young-aged population, which will be mitigated in future, when birth rates eventually decline. Despite having a very high population relative to its size, Malda district had previously recorded low rates of literacy and school enrolment in the past, because of the low importance given to education in rural areas. All this

has changed substantially in recent times, when the demand for rural education has shot up in virtually all blocks, accompanied by remarkable increase in formal and nonformal enrolments of learners. Thus the currently high educational demands in the district cannot be met adequately by purely temporary measures such as the establishment of more nonformal SSK & MSK institutions. What is required instead is all-round expansion in basic education opportunities, accompanied by the establishment of formal schools on a scale that matches the growing needs of the district population. Given the high rural population in Malda and the overall dearth of rural livelihood opportunities because of the relative scarcity of agricultural land, retraining and redirection of large sections of the rural population into new livelihoods is an urgent necessity if the problems caused by assetlessness and rural poverty are to be overcome. Thus, strong consideration needs to be given to overall expansion and consolidation of formal school education in the district, in order to address these issues satisfactorily.

## Overall Literacy Trends in Malda District

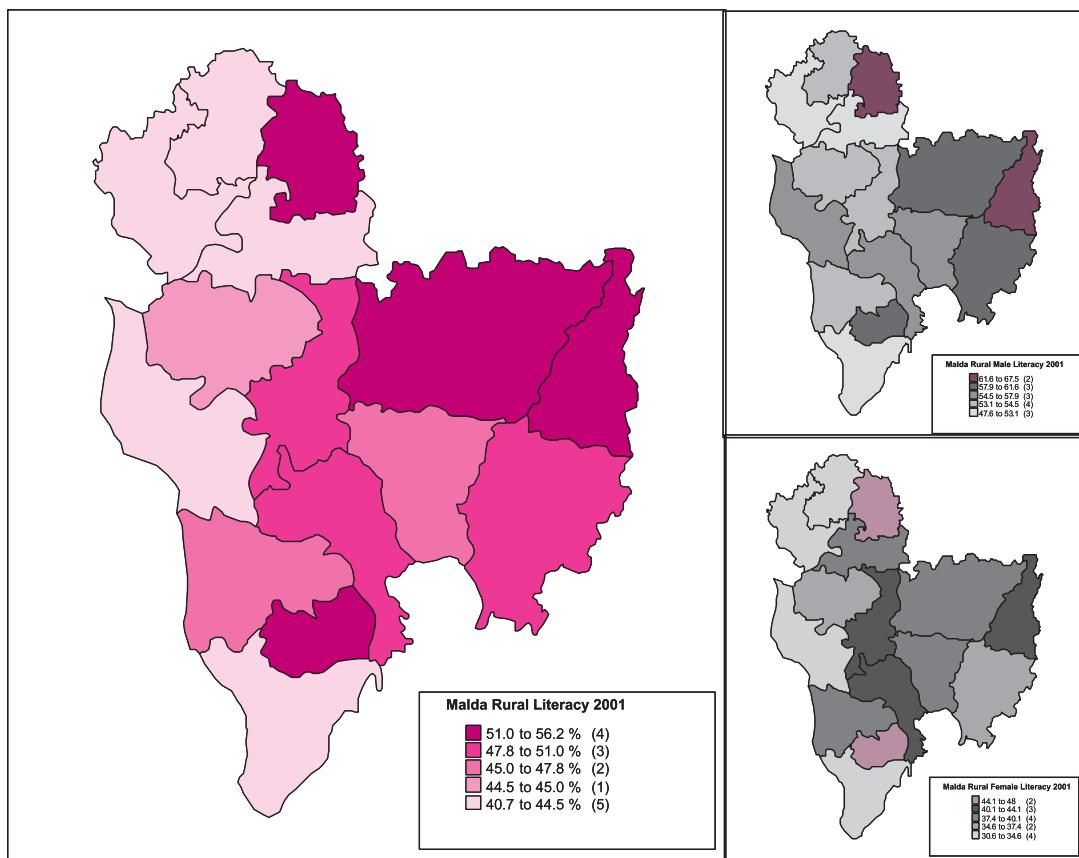
As the preceding discussion of the current status of public education in the district has amply demonstrated, Malda district has made commendable strides in the expansion of school education. The trend towards increasing school enrolment, which commenced during the 1990s, was accompanied by other favourable trends such as increasing school enrolments among girl children. Despite Malda being culturally diverse and being home to certain communities that are widely believed to hold conservative values regarding girls' education, no evidence of such cultural conservatism surfaces within public education. In all regions and among all rural communities, the response to the provision of new educational opportunities has been wholehearted and widespread. Thus, rather than being constrained by the lack of demand for education, human development in the district is presently constrained by inadequacies in the educational infrastructure, which urgently need to be overcome if the full potential for human development is to be realised by the people of the district.

Increasing school enrolments, however, at best represent a short-period response to the emerging human

development needs of the district. They do not necessarily reflect the more longterm nature of developmental changes that have simultaneously raised the rural aspiration for education, as the large rural population of Malda district seeks to uplift itself to a position of greater economic and livelihood security, following the marginalisation or collapse of the old systems of rural livelihood support. A better idea of the longterm processes that impinge upon the visibly rising

demand for rural educational opportunities can be obtained through brief study of recent literacy trends in the district, and particularly the nature of inter-decadal changes in literacy that have occurred in Malda district. This also provides evidence on whether the short-term improvements in school enrolment discussed above have been consolidated into longterm literacy gains by the district.

**Chart : Literacy Patterns in Malda District 2001**



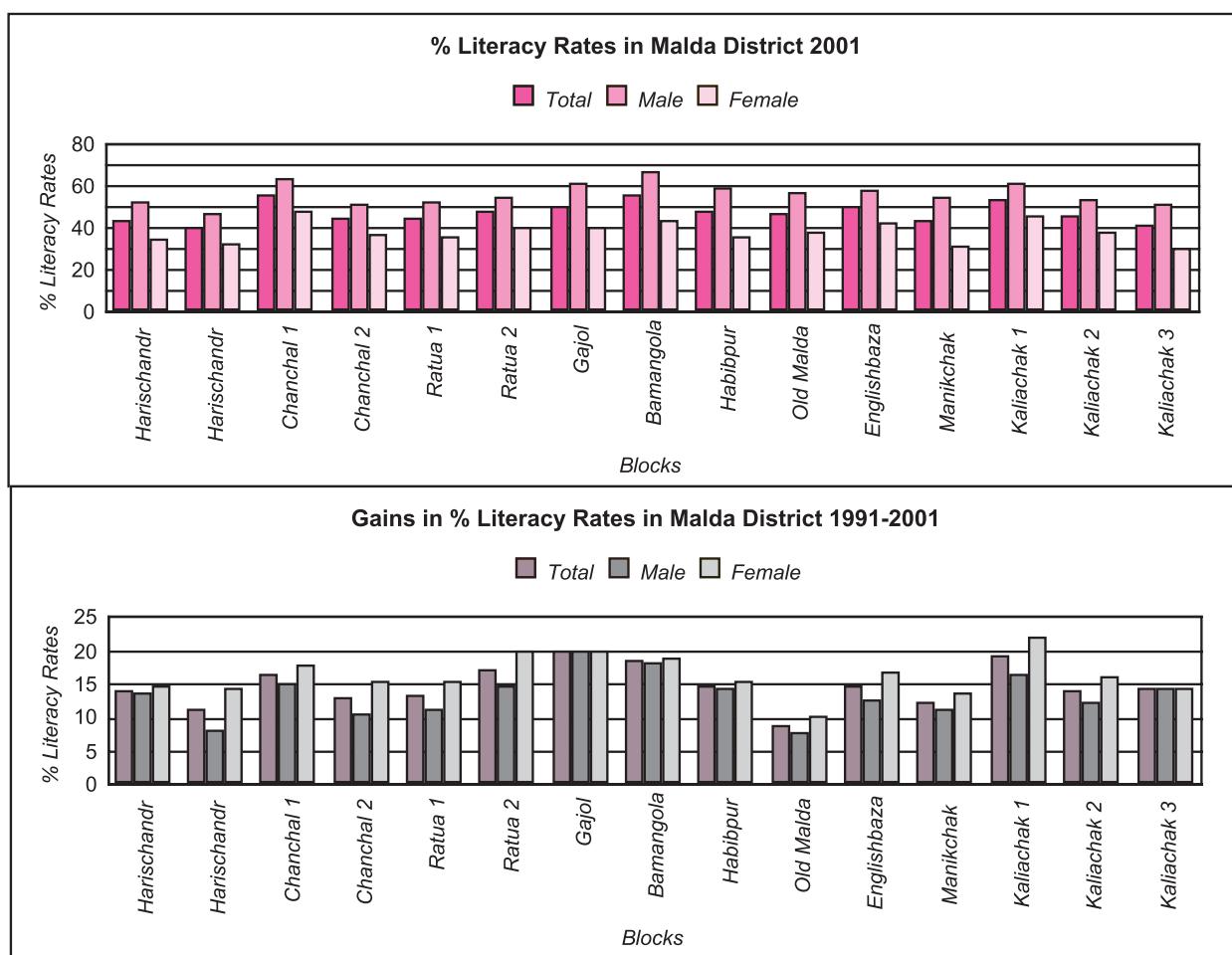
Current regional literacy patterns in Malda district in 2001 are illustrated pictorially by the map charts above. For the population as a whole, blocks like Chanchal 1, Gajol, Bamangola and Kaliachak 1 represent pockets of high rural literacy in the district. The densely populated blocks along the Diara and western Tal however generally record lower literacy rates than the central Malda region and the Barind blocks. As the sub-maps to the right reveal, such regional differences in literacy appear to be weighted by the existing regional differentials in male and female literacy. Thus, while male literacy is more widespread across the district, and is thus also visible in the western Tal blocks and Manikchak as well, the overall

rate of female literacy is lower than male literacy rates across the district and is particularly low compared to male literacy in the western Tal and Diara regions, which are primarily dominated by the Muslim community. Given such differentials in gender literacy, which will be discussed more comprehensively later in this report, longterm educational and literacy gains in Malda district have to be made by closing the gender gap, i.e. by raising female literacy rates and the enrolment rates of girl children more rapidly than the order of increase for their male counterparts. Whether this has in fact occurred or not in Malda district shall be examined next.

**Table: Intercensal Changes in Rural Literacy in Malda District 1991-2001**

CD Block	2001 Total Population	1991 Total Population	2001 % Total Literacy	1991 % Total Literacy	1991-2001 Gain in % Total Literacy	2001 % Male Literacy	1991 % Male Literacy	1991-2001 Gain in % Male Literacy	2001 % Female Literacy	1991 % Female Literacy	1991-2001 Gain in % Female Literacy
Haris-chandrapur 1	162406	129829	44.1	30.1	14.0	53.1	39.5	13.6	34.6	20.0	14.6
Haris-chandrapur 2	198039	157077	40.7	29.5	11.2	47.7	39.4	8.3	33.3	18.9	14.4
Chanchal 1	174204	143288	56.1	39.8	16.4	63.8	48.8	15.0	47.9	29.9	18.0
Chanchal 2	165192	132697	44.5	31.6	12.9	51.3	40.8	10.5	37.4	21.9	15.5
Ratua 1	217356	173655	45.0	31.8	13.2	53.1	41.9	11.2	36.2	20.8	15.4
Ratua 2	160904	125762	47.8	30.5	17.3	54.5	39.6	14.9	40.8	20.9	19.9
Gajol	294715	233139	51.0	31.1	20.0	61.5	41.6	19.9	40.1	20.0	20.1
Bamangola	127252	107579	56.1	37.5	18.6	67.5	49.2	18.3	44.1	25.1	19.0
Habibpur	187650	168397	48.2	33.4	14.8	59.7	45.3	14.4	36.4	21.1	15.3
Old Malda	131255	132999	47.7	39.0	8.7	56.8	49.1	7.7	38.1	27.8	10.3
Englishbazar	226236	180434	50.4	35.8	14.6	57.9	45.2	12.6	42.5	25.7	16.8
Manikchak	214127	177572	44.1	31.7	12.4	55.5	44.3	11.2	31.9	18.2	13.7
Kaliachak 1	310935	243787	54.3	35.1	19.2	61.6	45.0	16.6	46.6	24.5	22.1
Kaliachak 2	211406	163871	46.1	31.9	14.2	53.8	41.5	12.3	37.8	21.6	16.2
Kaliachak 3	284376	214721	41.8	27.5	14.3	52.1	37.8	14.3	30.7	16.2	14.5

Source: Census 2001

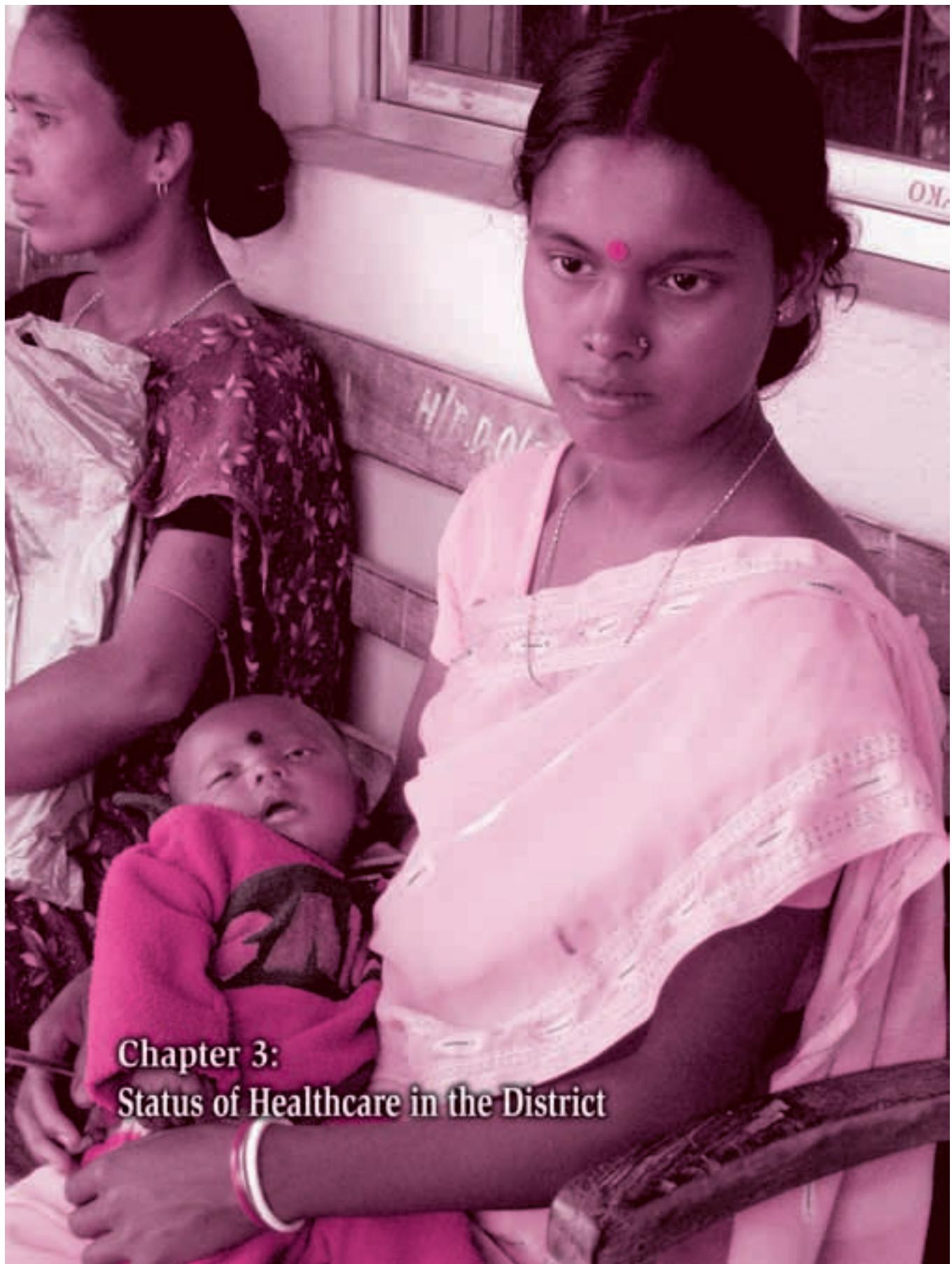


Between 1991-2001, total rural population in Malda district grew by just under 24 percent - from 24.85 lakh to 30.66 lakh - which represents a relatively high order of population increase. Despite this, blockwise rural literacy rates showed increases ranging from 8.7-20.0 percentage points over the same period, with all blocks other than Old Malda recording double-digit literacy gains. On the whole therefore, overall blockwise rural literacy rates improved from the range of 27.5-39.8 percent in 1991 to 40.7-56.1 percent in 2001. With the exception of Old Malda block, rural literacy gains were impressive in most Barind and Diara blocks, touching levels of 20.0 percentage points in Gajol and 19.2 percentage points in Kaliachak 1. Except in Ratua 2 and Chanchal 2, rural literacy gains in the Tal region were more moderate. However, since rural literacy levels in most Tal blocks were relatively high in 2001, the remarkable improvements in school enrolment rates seen earlier in the Tal region may now be identified as the response of a growingly literate regional

population to the extension of educational opportunities.

It would be interesting to examine whether such overall intercensal literacy gains reflected a closing or widening of gender gaps in rural literacy. As also reflected pictorially in the barcharts, the intercensal gains in blockwise female literacy in rural Malda in the range 10.3-2.1 percentage points were impressive, and grossly outweighed male literacy gains which were in the range 7.7-19.9 percentage points between 1991-2001. As these rural literacy trends indicate, the short term improvements in educational enrolments in Malda district are being progressively consolidated into longterm literacy gains, providing strong evidence of vigorous human development in the district in the educational sphere. Other aspects of literacy which are of interest in the context of Malda, such as details of gender literacy and literacy rates among different cultural communities are discussed at length in the relevant chapters of this report.





## Chapter 3: Status of Healthcare in the District



# Status of Healthcare in the District

## Healthcare Institutions in Malda

In any modern society, the capacity to live long and fulfilling lives is a critical human ability that relates, in demographic terms, to human life expectancy. Life expectancy depends on a number of proximate factors which include the general health status of the population, the status of public health and hygiene, the status of maternal and child health, the extent of coverage by public healthcare services available to the population, the incidence of morbidity and disease, the regional endemicity of diseases if any, and so on. Before assessing current health situations in Malda district in terms of these aspects, a broad overview may first be obtained of the existing public healthcare system in the district.

The state healthcare system in Malda district comprises a total of 482 referral institutions, including full-fledged

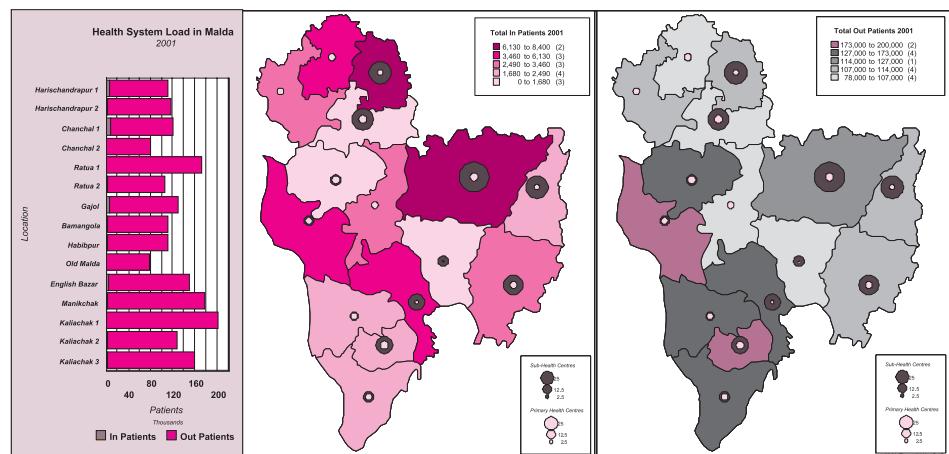
# Chapter 3

hospitals, primary health centres [PHCs] and health sub-centres [SCs], the latter being functionally grouped into government clinics and dispensaries. Private health facilities including nursing homes are excluded from this list. Thus in *pro rata* terms, for each hospital-level public health facility, there are approximately 7 public institutions at PHC-level and 72 at SC-level. The referral healthcare chain runs from the government clinics and dispensaries which offer only out-patient treatment to the PHCs which provide basic in-patient facilities, and ultimately to government hospitals situated at the block, sub-division and district headquarters which offer full-fledged out-patient and in-patient services to the district population. Nevertheless, because of rapid population growth and high demographic pressure, the public healthcare system in Malda district carries an exceptionally large load.

**Table: Institutional Structure of the State Healthcare System**

CD Block	Hospitals	PHCs	Government Clinics	Government Dispensaries	Total Health Institutions
Harischandrapur 1	1	3	21	1	26
Harischandrapur 2		3	23		26
Chanchal 1	1	2	24	1	28
Chanchal 2		3	20		23
Ratua 1		4	28		32
Ratua 2		3	20	1	24
Gajol	1	4	50	1	56
Bamangola	1	2	23	1	27
Habibpur	1	2	42	2	47
Old Malda		2	22		24
Englishbazar		3	30		33
Manikchak	1	3	31		35
Kaliachak 1		4	34		38
Kaliachak 2		3	26		29
Kaliachak 3		3	31		34

Source: BAES, GoWB



Besides the network of institutions that make up the public healthcare system in Malda district, details of their staffing patterns and salient characteristics of the settlements and population they extend healthcare coverage to are presented below. Of the three principal regions within the district of Malda, the Diara areas spanning Manikchak and the three Kaliachak blocks have the highest aggregate population and settlement density, in comparison to which population and settlement density are lowest in the four Barind blocks. However, despite the obviously high load carried by the state healthcare system in the Diara blocks, the physical infrastructure of hospitals, PHCs and SCs, and the deployments of healthcare personnel in the

Diara region do not appear to be substantially higher than the healthcare resources committed towards meeting the needs of other less-populated regions in the district. On account of such system inadequacies in the face of an overwhelming system-load, these four Diara blocks are the most deprived in terms of the existing capacity for healthcare service delivery. While this is mitigated to some extent by the proximity of urban referral facilities and private healthcare institutions in the Englishbazar-Old Malda municipal region, other factors such as the difficulty of communication from the riverine *diaras* and overall poverty of the rural population also limit the degree of public access to modern healthcare in these blocks.

**Table: State Healthcare Infrastructure & Coverage in Malda District**

CD Block	Population	District Hospital RH/BPHC	PHC	Total Beds	Pharmacists & Lab Staff	Medical Officers	Govt. Nurses	Health Sub-Centres	Female Health Assistants	Total Villages	Villages >1.5km from SC
Harischandrapur 1	162406	1	3	79	5	4	17	21	17	182	93
Harischandrapur 2	198039	1	2	27	2	2	9	23	24	164	49
Chanchal 1	174204	1	2	84	10	6	24	24	25	101	76
Chanchal 2	165192	1	2	23	2	1	6	20	24	108	51
Ratua 1	217356	1	3	35	5	5	9	28	26	210	85
Ratua 2	160904	1	2	27	3	4	5	20	25	106	62
Gajol	294715	2	3	65	8	4	20	50	49	813	50
Bamangola	127252	1	3	39	5	4	9	23	22	274	14
Habibpur	187650	1	2	39	5	2	9	42	41	379	23
Old Malda	131255	1	2	18	4	4	6	22	25	231	40
Englishbazar	226236	1	2	27	4	4	8	30	25	205	67
Manikchak	214127	1	3	37	7	4	9	31	32	304	43
Kaliachak 1	310935	1	3	29	6	2	8	34	39	240	78
Kaliachak 2	211406	1	2	25	4	1	8	26	29	204	40
Kaliachak 3	284376	1	2	29	5	3	9	31	33	215	48
Old Malda M	62959	-	-	-	-	-	-	-	-	-	-
Englishbazar M	161456	1	-	500	48	13	172	3*	-	-	-

Source: Office of the CMOH, Malda

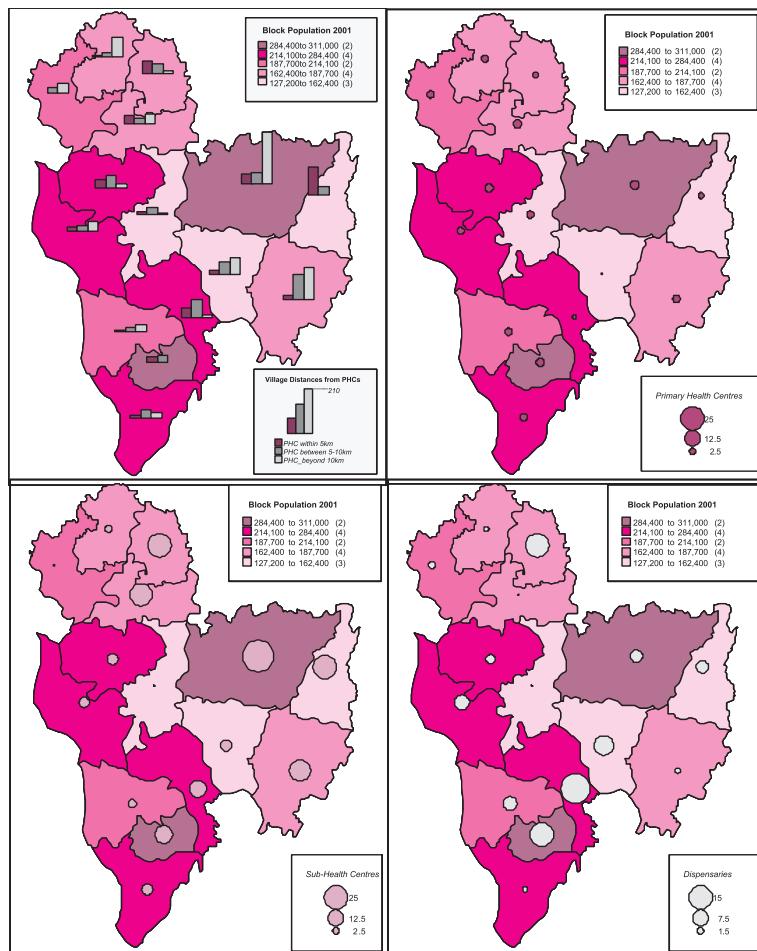
Note: Matrisadan clinic facility available

Once comparisons are made between the institutional structure and staffing patterns of healthcare facilities in each Malda block and the block population to be served by these, it becomes immediately obvious that the healthcare infrastructure currently available to each block is inadequate relative to the requirements of the regional population. Kaliachak 1, which for instance is the most densely populated block in the district with 240 village habitations and a population exceeding 3.10 lakh, offers patients only 29 beds, while a block like Bamangola with less than half its population offers as many as 39 beds. In Kaliachak 1 therefore, the bed-to-population ratio departs substantially from the desired 1:10,000 norm. In terms of staffing levels too, the distribution of health workers and health professionals across Malda district is highly uneven, when compared to the population load. While the network of healthcare institutions at SC level bears some relation to the number of settlements and sizes of the block population to be served, the distribution of referral institutions,

comprising PHCs, rural hospitals [RHs] and Block PHCs [BPHCs], across the district appears to follow an administrative design, rather than being designed in concordance with the distribution and number of SCs.

On the other hand, since the morbidity patterns and associated healthcare needs of the district would bear closer relation to the regional distribution of population, mismatches between available services and needs are likely to exist in different parts of the district. Consequently, while the residents of some blocks are better served by local healthcare services, those residing in other blocks have to depend to a greater extent on services available from referral institutions located at some distance from them. As the regional charts below show, this creates major regional deficiencies in the delivery of public healthcare, which can have unfortunate consequences on the health profile of less-served regions in the district.

**Chart: Public Healthcare Network & Population Loads in Malda District**



In terms of the size of the population to be served, healthcare needs in Malda district are greatest across the densely settled Diara blocks. Within the Tal region, Harischandrapur 2 and Ratua 1 also have pressing health needs, in keeping with the size of their population. In the Barind blocks however, healthcare needs have to be assessed from an altered perspective, since in addition to the expected population load, cognisance must also be taken of the remoteness of Barind villages and the relative isolation of their population from referral services made available by the District Hospital at Englishbazar. Even so, the system loads on the public healthcare network are lower in the Barind blocks because of population factors. Only in Gajol block, which has a large population because of its large relative size, are the block-level healthcare institutions obliged to carry a heavier load.

Although the PHC network is deployed more or less evenly across all Malda blocks, the distribution of SCs and dispensaries shows considerable regional variation. The population in most Barind blocks – with the exception of Bamangola – has to depend to a greater extent on public dispensaries and clinics to meet its healthcare needs, which is not the case in Bamangola where public healthcare needs seem to be taken care of adequately by the SCs and PHCs. In comparative terms, Bamangola is therefore better served by the existing healthcare institutions than the other blocks in the Barind region. However, the more densely populated blocks of the Diara and western Tal region also have relatively few SCs and dispensaries in comparison to their large block populations. Thus the system load on existing PHCs and hospital institutions is extremely high, particularly in the Kaliachak region. Since the rural healthcare network is inadequate to meet this, rural residents from these blocks have to depend to a much greater degree on the urban hospitals and healthcare institutions located in Englishbazar. This is also true for Old Malda block.

## Performance of the Hospital System

The impact of such uneven demographic pressures on the existing institutional healthcare network in Malda district shows up strongly in indicators such as bed-

occupancy and bed-turnover rates at the Englishbazar district hospital. Referral healthcare systems are normally designed to operate with a proportion of slack, so that additional capacity is available within the system to handle the exceptional situations that may arise during epidemics or natural calamities. The standard ratios for the system indicate the permissible extent of the slack. As the table shows, however, Malda District Hospital in the years 2002-2003 recorded phenomenally high bed-occupancy and bed-turnover ratios, and the emergency admissions rate for the hospital sharply exceeded the standard rate. On the basis of such ratios, it is apparent that the referral healthcare system in Malda district is heavily overloaded and operates with very little slack. The cause of this is likely to lie in existing infrastructural inadequacies in the rural healthcare system, which can cause many rural residents to depend extensively on urban institutions in order to fulfil their needs for public healthcare.

**Table : Performance Indicators for Malda District Hospital 2002-2003**

Performance Indicators	Rate Achieved 2002	Rate Achieved 2003	Standard Rate
<i>Bed Occupancy Rate [BOR] %</i>	92.9%	94%	75-100
<i>Bed Turnover Rate [BTR]</i>	96.73	101.85	72-96
<i>Emergency Admission Rate %</i>	83.48%	78.78%	40-45

*Source: Health on the March, GoWB, 2003-04*

In addition to the District Hospital in Englishbazar, six rural hospitals serve the referral healthcare needs of rural communities in different regions of the district. Of these, two are located in the Tal region, three in the Barind and one in the Diara in Manikchak. As seen earlier, these hospitals are better equipped than the PHCs with more medical officers, more support staff and more beds, and are expected to take care of the referral and hospitalisation needs of in-patients from surrounding PHCs and SCs so that the system load on the main District Hospital is relieved. Old Malda, Ratua 1 & 2 and the three Kaliachak blocks are not served by similar rural hospitals because of their contiguity to Englishbazar allows the rural population to avail the same services at the District Hospital located there.

**Table : Performance Indicators for Rural Hospitals in Malda District 2003**

Rural Hospital	Bed Turnover Rate	Bed Occupancy Rate	% Patient Referred Out to Total Discharged Patients	% Deliveries to Admission	Emergency Admission Rate
Harischandrapur RH	81.18	46.97	6.35	10.94	77.05
Chanchal RH	81.84	50.99	17.34	15.40	93.32
Gajol RH	164.58	142.55	14.98	14.92	55.61
Bamangola RH	67.12	88.09	11.71	19.41	72.69
R.N.Roy RH	143.69	52.79	22.06	25.28	75.62
Manikchak RH	36.81	38.86	65.62	38.65	9.74

Source: *Health on the March, GoWB, 2003-04*

Except for Gajol RH, bed turnover and bed occupancy rates at these rural hospitals are considerably lower than those recorded at Malda District Hospital, providing ample evidence that patient loads are not being allocated evenly across the district. Except in Gajol RH and Bamangola RH, bed occupancy is much lower than the standard rates and is lowest in Manikchak RH and Harischandrapur RH – both serving rural population that reside on the extreme western borders of the district, relatively far from Englishbazar. Bed turnover rates show improvement at Harischandrapur but still remain very low at Manikchak. The greatest anomalies, however, are seen in the Barind, where all three blocks other than Old Malda are served by separate rural hospitals. Both Gajol RH and R.N.Roy RH - which serves Habibpur - have very high bed turnover rates, indicating high system loads from short-term patients. Gajol RH, in addition, also has a very high bed occupancy ratio, providing additional evidence that the patient overload frequently causes multiple occupancy of beds. Except at Manikchak RH, the emergency admission rates for the other rural hospitals are much above standard norms, and are highest for Chanchal RH. The implication is that most patient admissions at these rural health facilities are not of a routine nature, but occur only when patients have already reached a critical stage. With the percentage of delivery cases being relatively low at most rural hospital facilities because of the high rates of non-institutional delivery, most emergency admissions occur when patients are brought to the hospital in a serious state, indicating inadequate functioning of the primary healthcare system during the early stages of illnesses. Referrals to other hospitals, including the District Hospital at Englishbazar, are low in most cases, except at Manikchak RH – which is anomalous because this

hospital generally admits fewer emergency cases. At R.N.Roy RH in Habibpur, the proportion of patient referrals to patient discharges is also relatively high, in keeping with the high bed turnover and relatively moderate bed occupancy. However, in Gajol RH where most cases appear to be attended on the premises, the coincidence of high bed turnover with high bed occupancy would be difficult to comprehend, unless there is very high rate of patient referrals to Gajol RH from the rural areas in the block. Since Gajol block has as many as 3 subordinate PHCs and 50 SCs to serve its very large block population, this is likely to be the case.

It may thus be inferred overall that while rural healthcare facilities in the Tal and Diara are still relatively underutilised, those in the Barind are generally overutilised. Only at Bamangola RH does the situation reach an optimum. In Habibpur, the rural hospital system receives a large number of referrals from the PHCs and SCs and refers many among them to the district hospital facilities. In Gajol, on the other hand, where the number of referrals from the PHCs and SCs is also high, most cases are handled at the rural hospital without referring them to the District Hospital facilities, in spite of the patient overload. The main reasons for such relatively low rates of patient referral from the rural hospital at Gajol are probably the traveling distance involved and the relative isolation of the block.

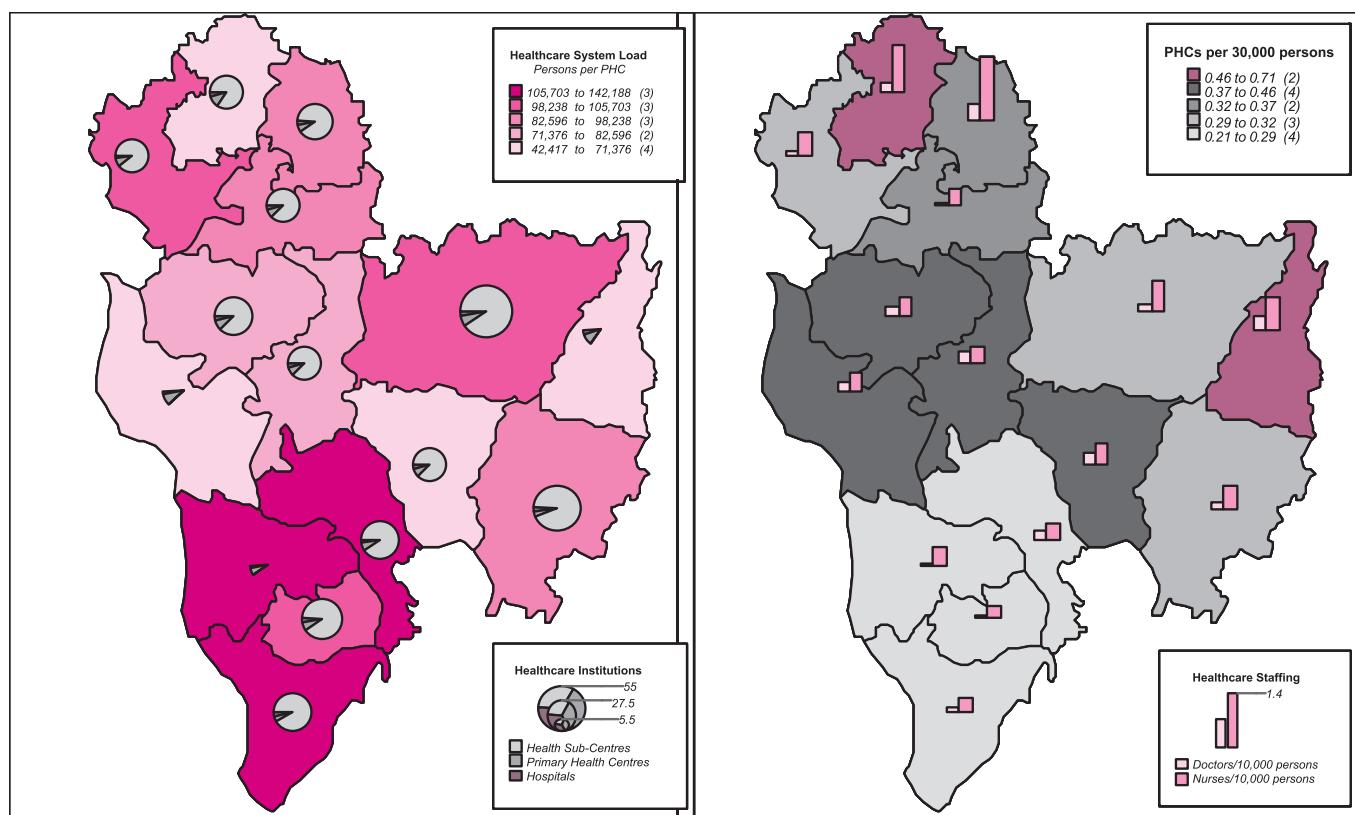
## Healthcare System Loads

To ensure equity in access to healthcare across all regions and for all communities, the provision of public healthcare infrastructure in India is designed around

population parameters. Therefore norms defining the number and location of healthcare facilities, the hierarchies in which the referral healthcare system is framed, and the staffing patterns followed by state healthcare services are all population-weighted. In Malda district, however, where population growth rates have been very high over recent decades, these norms have often been exceeded, thus limiting relative access to healthcare in the district. Since there has also been considerable movement of population in recent years from one Malda region to another, because of economic as well as ecological pressures, the system load presently carried by public healthcare facilities varies unevenly from block to block. Analysis of such regional inequities can aid the identification of healthcare deprivation within certain regions, and suggest corrective action to improve the status of healthcare in the district.

Some of the demographic constraints within which the state healthcare system currently functions in Malda district are identified in the table below. Since

settlement density is uneven across the district and block populations vary considerably, the system loads carried by block-level healthcare institutions are unequal and affect the quality and delivery of healthcare services to the resident population. Several regional factors also influence the morbidity patterns of each block. Variations in the growth rates for block populations determine the proportion of young children, and ultimately the need to provide paediatric care. Variations in the proportion of females in the block population define the potential demand in each block for institutional deliveries and maternal healthcare. Besides such demographic factors that can cause local variation in the nature of healthcare demand, other factors that affect the supply side include the size of the patient load that can be handled efficiently by existing in-patient facilities, and the limits that current staffing norms impose on the quality of personal care that can be delivered to out-patients. The vastly varying positions of the Malda blocks in this respect become immediately apparent from the ratio-analysis in the table.



**Table : Current Healthcare System Loads in Rural Malda**

CD Block	2001 Population	Male Population	Female Population	0-6yr Population	Hospital Beds	Doctors	InPatients	OutPatients	Total Patients
Harischandrapur 1	162406	83113	79293	34602	79	5	6128	106676	112804
Harischandrapur 2	198039	102066	95973	46971	27	4	3087	113824	116911
Chanchal 1	174204	89182	85022	32972	84	10	8392	113726	122118
Chanchal 2	165192	84175	81017	35262	23	3	1268	78192	79460
Ratua 1	217356	112396	104960	46588	35	5	1188	172516	173704
Ratua 2	160904	82297	78607	33959	27	4	3296	102296	105592
Gajol	294715	150303	144412	53724	65	10	6964	123792	130756
Bamangola	127252	65258	61994	20923	39	5	2468	109120	111588
Habibpur	187650	94945	92705	31554	39	5	3456	108756	112212
Old Malda	131255	67587	63668	23811	8	1		78175	78175
Englishbazar	226236	116457	109779	42800	27	4	4483	146103	150586
Manikchak	214127	110410	103717	43641	37	6	3732	176172	179904
Kaliachak 1	310935	160064	150871	62040	29	4	1680	199676	201356
Kaliachak 2	211406	108921	102485	43217	25	4	2268	127172	129440
Kaliachak 3	284376	146876	137500	60939	29	4	2016	159504	161520

**RATIO ANALYSIS**

CD Block	Doctors per lakh population	Beds per 10,000 population	%InPatients to Total Pop	%OutPatients to Total Pop	%TotalPatients to Total Pop
Harischandrapur 1	3.08	4.86	0.038	0.657	0.695
Harischandrapur 2	2.02	1.36	0.016	0.575	0.590
Chanchal 1	5.74	4.82	0.048	0.653	0.701
Chanchal 2	1.82	1.39	0.008	0.473	0.481
Ratua 1	2.30	1.61	0.005	0.794	0.799
Ratua 2	2.49	1.68	0.020	0.636	0.656
Gajol	3.39	2.21	0.024	0.420	0.444
Bamangola	3.93	3.06	0.019	0.858	0.877
Habibpur	2.66	2.08	0.018	0.580	0.598
Old Malda	0.76	0.61	0.000	0.596	0.596
Englishbazar	1.77	1.19	0.020	0.646	0.666
Manikchak	2.80	1.73	0.017	0.823	0.840
Kaliachak 1	1.29	0.93	0.005	0.642	0.648
Kaliachak 2	1.89	1.18	0.011	0.602	0.612
Kaliachak 3	1.41	1.02	0.007	0.561	0.568

Source: BAES, GoWB

Although block population and the total number of block-level healthcare institutions vary greatly across the different blocks of Malda district, the regional maps above indicate that the ratio of institutions that provide both in-patient and out-patient facilities – such as block hospitals and PHCs, to those such as SCs which only provide out-patient facilities, is broadly similar across the blocks. Three zones in different parts of the district record very high system loads that uniformly surpass 1 lakh persons per PHC. Among these three zones, the largest-

comprising the three contiguous blocks of Kaliachak 2 & 3 and Englishbazar – is also located within convenient traveling distance from the urban healthcare facilities at Englishbazar and Old Malda municipalities. Hence, the large rural population of these three blocks adds to the system load carried collectively by the District Hospital and private clinics and nursing homes in these cities. The two other zones with similarly high system loads i.e. Gajol and Harischandrapur 2 blocks, on the other hand, are located more remotely on the district's peripheries.

In comparison to these five extremely-placed blocks, other blocks in the central region of Malda have a more favourable PHC-to-population ratio, although nowhere near the desired national norm of one PHC per 30,000 population. The best position in Malda district is held by Bamangola block which records a PHC-to-

population ratio of 0.71 per 30,000 population followed by Chanchal 1 block. The blocks that carry the highest rural healthcare system loads in the district are Englishbazar and the three Kaliachak blocks in the Diara, all of which have PHC-to-population ratios of under 0.30.

### Chart : Existing National Norms for Rural Primary Healthcare Facilities

Item	Norm
At least one Trained Dai.	<i>For each village.</i>
One trained Village Health Guide	<i>For each village per 1000 population</i>
One SC	<i>For 5000 population in plain area and for 3000 population in tribal, hilly and backward areas</i>
One PHC	<i>For 30000 population in plain area and for 20000 population in tribal, hilly and backward areas</i>
One Community Health institution	<i>For every 1 - 1.20 lakh population, serving as a referral institution for 4 PHCs</i>

When compared to the desirable national norms for the rural healthcare system indicated in the chart above, all Malda blocks are seen to suffer from moderate to severe mismatches between existing block-level healthcare facilities and the current block population. These are revealed in blockwise computations of requirements of PHCs, SCs and female health assistants [FHAs] on the basis of current block population, as shown in the table below.

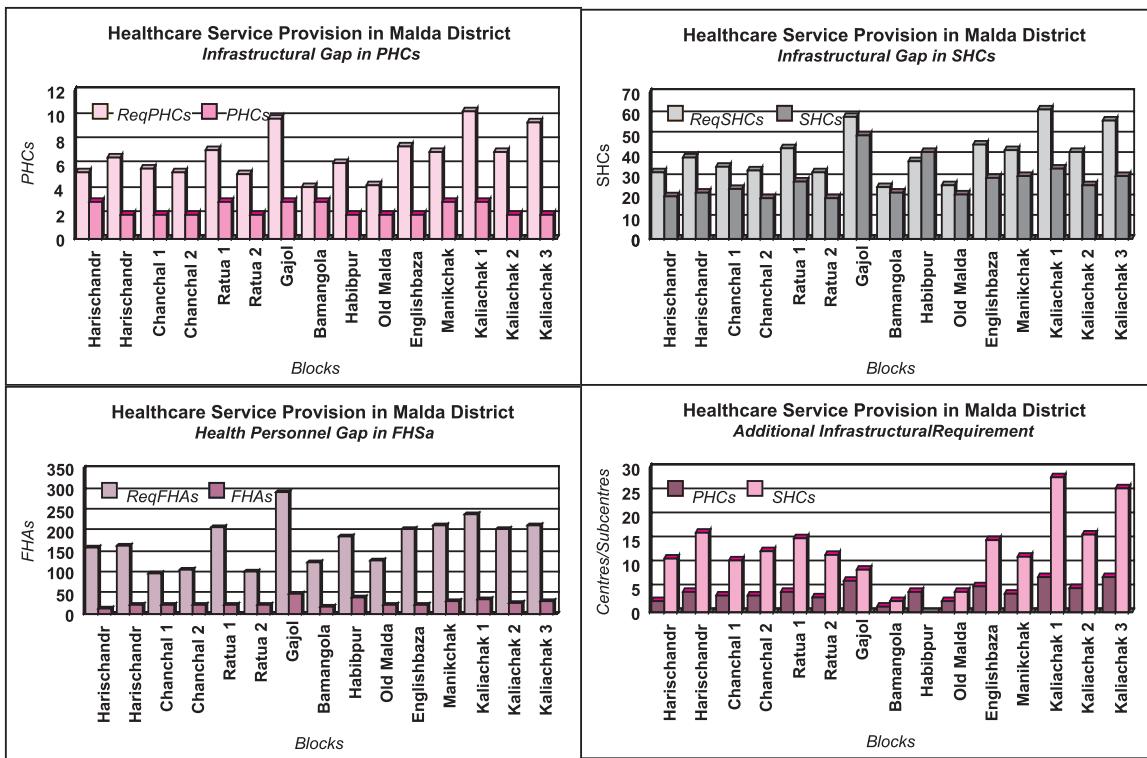
On the average, each block in Malda district has a rural population of 2.04 lakh, which should be served by 6 or more PHCs under existing national norms instead of the block-average of 2 PHCs at present. Since similar gaps also exist in the distribution of SCs in ratio to the block population in the district, the referral healthcare system presently carries an overload and ceases to function efficiently as a result.

### Table : Infrastructural Gaps in the Rural Healthcare System in Malda District

CD Block	Current PHCs/ 30000 population	Current SCs/ 5000 population	Current FHAs/ 1000 village	Current FHAs/ 1000 population	Required PHCs	Required SCs	Required FHAs	Current PHC shortfall	Current SC shortfall	Current FHA shortfall
Harischandrapur 1	0.55	0.65	0.09	0.10	5	32	162	-2	-11	-145
Harischandrapur 2	0.30	0.58	0.15	0.12	7	40	164	-5	-17	-140
Chanchal 1	0.34	0.69	0.25	0.14	6	35	101	-4	-11	-76
Chanchal 2	0.36	0.61	0.22	0.15	6	33	108	-4	-13	-84
Ratua 1	0.41	0.64	0.12	0.12	7	43	210	-4	-15	-184
Ratua 2	0.37	0.62	0.24	0.16	5	32	106	-3	-12	-81
Gajol	0.31	0.85	0.06	0.17	10	59	295	-7	-9	-246
Bamangola	0.71	0.90	0.08	0.17	4	25	127	-1	-2	-105
Habibpur	0.32	1.12	0.11	0.22	6	38	188	-4	4	-147
Old Malda	0.46	0.84	0.11	0.19	4	26	131	-2	-4	-106
Englishbazar	0.27	0.66	0.12	0.11	8	45	205	-6	-15	-180
Manikchak	0.42	0.72	0.11	0.15	7	43	214	-4	-12	-182
Kaliachak 1	0.29	0.55	0.16	0.13	10	62	240	-7	-28	-201
Kaliachak 2	0.28	0.61	0.14	0.14	7	42	204	-5	-16	-175
Kaliachak 3	0.21	0.55	0.15	0.12	9	57	215	-7	-26	-182
<i>Malda District Avg</i>	<i>0.37</i>	<i>0.71</i>	<i>0.14</i>	<i>0.15</i>	<i>102</i>	<i>613</i>	<i>2670</i>	<i>-66</i>	<i>-188</i>	<i>-2234</i>

Source: Computed from previous tables & norms above

### Chart : Infrastructural Gap Analysis



When these gaps are analysed through the accompanying barcharts, it can be seen that the institutional gap between existing and required healthcare facilities across the district is considerably larger in the case of PHCs, than it is for the network of SCs. In regional terms, the largest gaps in the number of PHC institutions are seen in the populous Kaliachak blocks in the Diara and Gajol in the Barind, while the corresponding gap is lowest in Bamangola block. At SC level however, the gap between existing and required institutions is not as wide, although it is still high in the three Kaliachak blocks. Habibpur even surpasses the standard one SC to 5000 population norm, although the norm applicable to this backward tribal-dominated block is actually one SC to 3000 population. In all Malda blocks, the widest departures are thus seen at staffing level, against the desirable norm of at least one health assistant per village. Since rural health personnel play a crucial role in educating village residents about general health and reproductive health matters and their work improves health-seeking behaviour and the acceptability of public healthcare services by guiding patients into the referral system and improving maternal and child health [MCH], understaffing is indeed a

critical problem for the rural healthcare system in Malda. While, in the absence of patient-flows, it might seem that the existing facilities at block-level are adequate to meet current healthcare demands, the truth of the matter is that a large proportion of the population in rural Malda lives beyond the reach of the healthcare system, because of inadequacies of infrastructure as well as personnel.

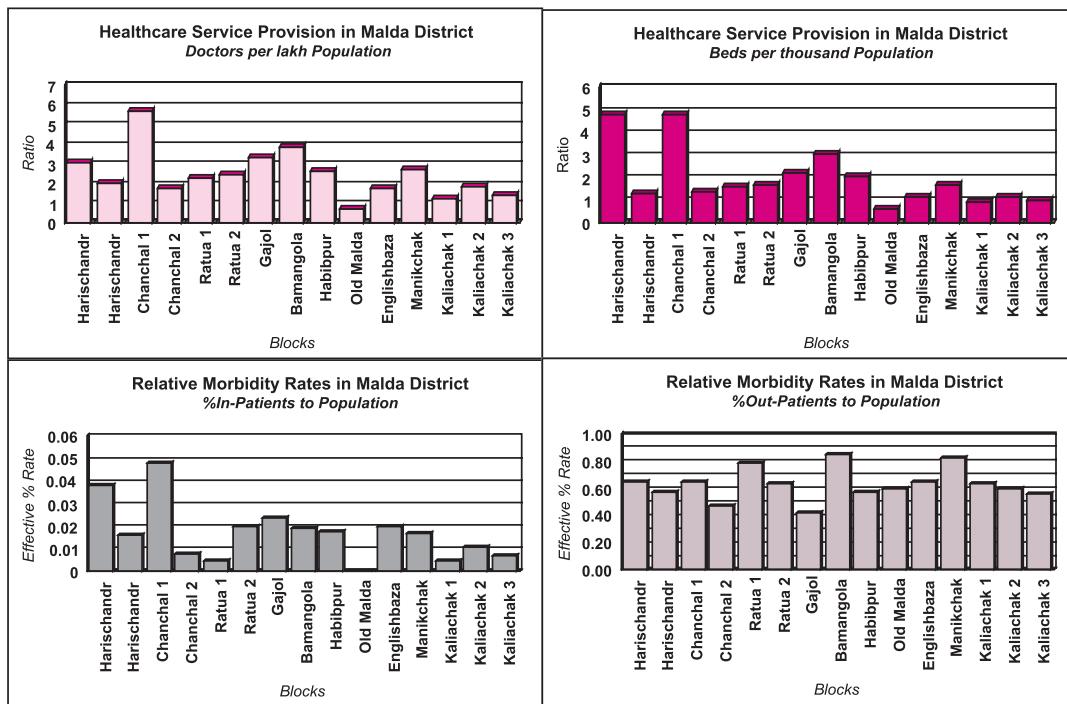
Computations have also been made of the additional field health staff and healthcare institutions that would be required to match existing national norms. For Malda district as a whole, the additional requirement would be approximately 66 new PHCs, another 188 SCs and new recruitments of 2234 field health staff. Both in terms of PHCs and SCs, these requirements are higher in the Tal and Diara blocks than they are in the Barind, and are highest overall in Kaliachak 1 & 3 blocks. Because of its sparser population and slower rates of population growth, and also because health facilities there have been allocated so far on the tighter public health norm for backward tribal regions, the Barind on the whole shows a much closer match between required and existing healthcare institutions. Conversely, the existing institutional shortfalls in the

Tal and Diara blocks reflect their high population and higher rates of migration and population growth.

Similar gaps also arise in the delivery of rural healthcare services in Malda district, because of mismatch between the postings of medical and other

rural health staff and the size of the block population. Since morbidity patterns are determined essentially by the relative size of the population targeted by rural healthcare services, this leads to equivalent gaps in the quality of rural healthcare.

**Table : Institutional Gaps in Rural Healthcare Delivery in Malda District**



Besides the institutional network of hospitals, PHCs and SCs, the quality of clinical healthcare services depends strongly on adequate availability of PHC and hospital staff. The regional maps had earlier shown wide variation across Malda district in the proportions of block-level nursing staff to medical officers. Except for Chanchal 1 block which, as the headquarters of the newly constituted Chanchal subdivision in Malda district, has recently undergone commensurate upgradation of subdvisional healthcare facilities, the ratio of doctors per lakh population in most other blocks in Malda district varies in the range between 1.29 to 3.93. While the exceptionally low ratio in Old Malda block is mitigated by its proximity to urban healthcare facilities located at Old Malda and Englishbazar municipalities, the other blocks in the Barind show relatively better ratios. Through most of the Diara blocks, the availability of doctors per lakh population is well below desired norms, and ranges

between the very low level of 1.29 to 1.89 in the three populous Kaliachak blocks.

Hospital bed availability also varies considerably across the district. With the exception of Harischandrapur 1 and Chanchal 1 blocks which record exceptionally high availability of 4.82-4.86 beds per 10,000 population, the figures for the other blocks in the district range between 0.61 to 3.06 beds per 10,000 population. Exceptionally low availability ratios of less than one bed per 10,000 population are recorded in Old Malda (0.61) and Kaliachak 1 (0.93). On the whole, the other Barind blocks record a better position with 2 or more beds being available per 10,000 persons in Habibpur (2.08), Gajol (2.21) and Bamangola (3.06). The other Malda blocks, particularly those in the Diara, are much more deprived with less than 1.7 beds being available per 10,000 population. Hence in overall regional terms, the Barind blocks are placed more favourably in terms of the availability of hospital beds for patients, while the blocks

in the densely populated Diara offer the least assured coverage to patients who may require hospitalisation.

Besides local topographic and microclimatic factors that can influence the local endemicity of diseases and resulting morbidity patterns, the proportion of patients to the total block population may be reasonably expected to remain relatively steady in all non-epidemic situations. However, this is not the case in the Malda blocks, which show wide variation in the ratios of in-patients and out-patients to their baseline block population. Thus, the proportion of the block population seeking healthcare services from out-patient and in-patient facilities in Malda during the reference year varied between 0.44 percent in Gajol block to 0.88 percent in Bamangola. Other blocks where relative healthcare access levels by patients were low included Chanchal 2 (0.48%), Kaliachak 3 (0.57%) and Harischandrapur 2 (0.59%). Conversely, relatively high healthcare access levels were also recorded in Manikchak (0.84%), Ratua 1 (0.80%), and Harischandrapur 1 and Chanchal 1 (0.70% in both). The corresponding proportion of out-patients to block populations ranged between 0.40 percent at Gajol to 0.86 percent in Bamangola. However, as the barcharts show, inter-block fluctuations was lower for the ratios of out-patients to block population, than for the ratios of in-patients to block population, indicating wide variability across the district in the nature of heathcare services provided to residents who seek healthcare services from public healthcare facilities. While out-patient services are more accessible at all health centres, wide variability occurs when patients require hospitalisation, because of the infrastructural weaknesses within the public healthcare system. The case of Manikchak block deserves particular mention, by way of illustration. In the reference year, the proportion of patients to the Mainkchak block population amounted to a relatively high level of 0.84 percent. However, only 0.02 percent of the block population was able to avail of in-patient care, against 0.82 percent who were treated at out-patient facilities. In several other blocks such as Chanchal 2, which recorded lower levels of morbidity overall, more patients on the average were able to avail of in-patient facilities because of better health infrastructure.

It thus becomes easily evident that the availability of in-patient and out-patient healthcare services from different block-level institutions in Malda district currently bears little relation to the relative size or morbidity patterns of the block population. Since in

practice, overall morbidity levels in the district are likely to be much higher than those estimated through ratio analysis, because a large section of the rural population may either seek alternative healthcare from private practitioners, quack doctors and local healers, the current weaknesses in the public healthcare system in Malda district become readily apparent.

## Endemicity of Diseases in Malda District

Among the illnesses and health hazards that are endemic to certain parts of Malda district, several are associated with water and recur annually in flooded areas. *Kalazar* occurs along with several other vector-borne diseases in areas where water gets impounded after the monsoon rains. Between 2001-2005, a total of 1524 cases were recorded in the district. In recent years, *kalazar* has shown rising incidence, with as many as 559 cases being detected in 2005. From its recent pattern of occurrence, *kalazar* mainly appears to be a disease of the Barind. Over 73 percent of the cases reported in 2005 were from this region, the bulk of them being from Gajol and Habibpur blocks. Nevertheless, it also occurs in certain portions of the Tal and Diara, particularly in Chanchal 2, Harischandrapur 2 and Kaliachak 2 blocks, where water gets impounded over a portion of the year. Prompt detection and treatment has usually kept fatalities in check, although 3 deaths were reported in 2005 from the Tal blocks.

Another vector-borne disease that recurs with regular frequency in Malda district is malaria, 1259 cases being reported in 2005. However, the region of incidence differs from that of *kalazar*. Nearly 85 percent of the cases recorded in 2005 were from Manikchak, Kaliachak 2, Englishbazar and Old Malda blocks - Manikchak alone accounting for as many as 511 cases. Malaria incidence was also reported from parts of Chanchal, Harichandrapur and Ratua in the Tal region and also from Gajol. However, the disease was largely absent in the rest of the Barind block. Regular spraying programmes are carried out in malaria-prone areas for vector control, and residents have been sensitised to the regular use of mosquito nets. Radical treatment for those who have caught the disease has usually managed to avert fatalities. Among other endemic water-borne diseases, the incidence of

diarrhoeal infections in the district is also alarmingly high, with over 2.65 lakh cases being treated in 2005. The number of fatalities that year were 64, most of them children. Since diarrhoeal infections spread through the use of contaminated water, focused intervention that combines the provision of safe drinking water to rural residents with improved sanitation and mass education on the effective use of oral rehydration therapy, is necessary to manage the seasonal outbreaks of this disease.

**Table: Arsenicosis Incidence in Malda District**

CD Blocks	Total Cases Jan-Nov' 2005
Manikchak	7
Kaliachak 1	153
Kaliachak 2	6
Kaliachak 3	15

*Source: Office of the CMOH, Malda*

Another health risk that also poses a major threat to regions adjacent to Malda district, in West Bengal and Bangladesh, is arsenic pollution. Four Diara blocks in Malda, comprising Manikchak and the three Kaliachak blocks, are commonly affected by the

incidence of arsenicosis arising from contamination of deep aquifers along the lower Ganga basin. While the cause for this hazard is geological, its consequences are felt in the high incidence of ailments like skin disease, dysentery, jaundice, diarrhoea, gastric ulcers, etc.. that arise from the use of arsenic contaminated water in the riverine region. With over 150 reported cases of arsenicosis in 2005, Kaliachak 1 is the worst affected among these Malda blocks. Although public health measures have been taken to provide safe arsenic-free drinking water to the population in affected areas, the sheer mass of human settlement in the Diara makes it difficult to monitor and control all instances.

Tuberculosis is another disease that also has traditionally high incidence in Malda district. To control the recurrence of the disease, seven special Tuberculosis Units [TUs] have therefore been set up within the district under the National Tuberculosis Control Programme, at the ratio of approximately one TU per 5.00 lakh population, to extend programme coverage to all villages and municipal areas in the district. The network of TUs is outlined schematically below, with details of the area assigned and the population to be covered by each.

**Table: Units under the National Tuberculosis Control Program in Malda District**

Tuberculosis Unit	Blocks/Urban Units Covered	Total Settlements	2001 Population	Population covered by TU
Chanchal TU	Harischandrapur 1	104	162406	534649
	Harischandrapur 2	72	198039	
Araidanga TU	Chanchal 1	99	174204	543452
	Chanchal 2	88	165192	
Gajol TU	Ratua 1	91	217356	488929
	Ratua 2	48	160904	
Habibpur TU	Gajol	288	294715	314902
	Old Malda	115	131255	
Manikchak TU	Old Malda M	1	62959	425533
	Bamangola	141	127252	
Silampur TU	Habibpur	230	187650	595311
	Manikchak	72	214127	
DTC	Kaliachak 2	55	211406	387692
	Kaliachak 1	61	310935	
Malda DT	Kaliachak 3	66	284376	3290468
	Englishbazar	112	226236	
Malda DT	Englishbazar M	1	161456	
		<b>1644</b>	<b>3290468</b>	<b>3290468</b>

*Source: Office of the DTO, Malda*

It is readily apparent that the population loads per TU differ quite widely across the district. The TUs at Chanchal and Araidanga that cover the Tal region carry a much higher population load compared to those that serve the Barind blocks, primarily because of variation in population density across the district. Silampur TU, which serves Kaliachak 1 & 3, has the highest population load, approaching nearly 6 lakh. On the other hand, the Englishbazar area, which is served by DTC as the nodal tuberculosis centre for the district, has by far the lowest population load, and is therefore best served. Again, in terms of the spatial area to be covered, while Gajol TU caters to over 400 village settlements, the DTC at Englishbazar only covers 113 settlements and Manikchak TU and Silamur TU cover 127 settlements each. Hence the efficiency of tuberculosis detection and control operations is probably better in the Diara, compared to the Tal or Barind blocks. This appears to be borne out in the next table, which shows that out of 24,649 suspected cases of tuberculosis detected in the district of Malda in 2005, nearly 43 percent were reported from the 371

settlements in the Diara region collectively served by the three tuberculosis units at Manikchak, Silampur and Englishbazar. The four other TUs that collectively cover 1277 settlements in the Barind and Tal accounted 13,547 suspected cases, against 10,553 suspected cases reported from the Diara, suggesting that apparent incidence of TB would be very high in the Diara region.

However, except in Manikchak region, where the ratio of suspected TB cases to the population served suggests a high TB incidence rate of 9.1 per thousand, the implied incidence rate in Englishbazar is 8.7 per thousand and as low as 5.6 per thousand in the region served by Silampur TU. Hence TB detection rates are probably better in the Diara because of the smaller population served by the TUs. In most of the Tal and Barind, the implied TB incidence rates are also relatively high at 7.9 per thousand in Gajol, 8.1 per thousand in Chanchal and 8.2 per thousand in Habibpur. However, the relative number of TB cases detected is smaller there.

**Table: Operational Performance of Tuberculosis Units in Malda District 2005**

Tuberculosis Unit	Suspected TB cases in 2005	Patients diagnosed positive	Patients initiating treatment	Cure Rate [%]	Default Rate [%]	Death Rate [%]	Failure Rate [%]
Chanchal TU	4320	444	635	85.86	8.2	2.5	2.2
Araidanga TU	2767	355	678	80.78	13.2	2.5	3.9
Gajol TU	3870	551	955	81.11	9.6	4.6	3.0
Habibpur TU	2590	511	813	81.68	12.9	4.2	1.6
Manikchak TU	3858	407	832	80.23	10.6	3.5	4.1
Silampur TU	3335	503	974	79.85	15.5	2.1	2.7
DTC/Englishbazar	3360	643	687	79.09	11.3	6.1	2.7
<b>Malda DT</b>	<b>24649</b>	<b>3414</b>	<b>5574</b>	<b>81.21</b>	<b>9.3</b>	<b>2.4</b>	<b>1.84</b>

Source: Office of the DTO, Malda

The proportion of suspected TB cases where patients are subsequently diagnosed as positive ranges from approximately one in ten cases at Chanchal TU to nearly two in ten cases at Englishbazar DTC. Although Manikchak TU reported a higher incidence of suspected TB cases in 2005, subsequent diagnosis showed that the incidence of positive cases was only around 10 percent in Manikchak, against over 19 percent in Englishbazar DTC. Default rates, which should ideally be under 5 percent, were considerably

higher in most regions of Malda, with the highest rate of 13.2 percent being recorded at Silampur TU which serves large parts of the Kaliachak region. Cure rates were higher in the Tal and Barind region, compared to the Kaliachak-Englishbazar region in the Diara. Death rates as a result of TB were relatively higher in the Barind region and were very high at the DTC, indicating also that a relatively large number of critical TB cases are ultimately treated at terminal stages by the DTC, rather than by TUs located more

conveniently in the regions where such incidences commonly occur.

High rates of default in TB treatment in Malda district are often attributed to the large population that migrates seasonally for work to other places from Malda district. To counter such high default in treatment, patients at the tuberculosis centres are now being provided 1-2 months worth of medicine under the DOTS programme, to enable them to continue the full course of treatment even after they leave Malda.

## Maternal & Child Health Issues

Maternal and child health problems in the rural areas of Malda district are rooted in the widely prevalent

practice of early marriage, accompanied by high fertility and multiple births. Contraceptive prevalence is still very low in the district, as a result of which birth spacing cannot be practiced efficiently by parents. The table below also reveals that the incidence of girls being married before reaching the age of 18 years is very high at 56.7 percent. Because of consequent lengthening of the reproductive span of women, the crude birth rate [CBR] in Malda district is extremely high, and the proportion of married women recording 3<sup>rd</sup> or higher-order births exceeds 50 percent. Meanwhile, the incidence of institutional or attended deliveries is low and immunisation rates among children are unsatisfactory. The frequency of low birth-weight incidence among infants correlates with the widespread prevalence of early marriage and early pregnancy in the district.

**Table : Maternal & Child Health Situation in Malda District 1998-1999**

District	% Girls married under 18yrs.	% 3rd & higher-order births reported	Crude Birth Rate	% Safe Deliveries	% Pregnant women receiving double Tetanus Toxoid doses	% Eligible Couples adopting Modern FP	% Children completing Immunisation	% Low birthweight babies [reported]
MALDA	56.7	51	30.8	29.7	74.2	31.9	38.9	4.4

*Source: Health on the March, GoWB, 2003-04*

It could be well established from an analysis of the data provided by the Department of Health & Family Welfare that underage marriage is a potential threat to the health of the mothers and children in the district. This is an area where sustained behaviour change communication activities need be mounted by the district and sub-district authorities.

Data provided in the table above validates our proposition that birth control through deeper penetration of family welfare measures is a crying need in the district. 51% of the reported births are of third or higher order, which is alarmingly high. A crude birth rate of 30.8 is something the district can hardly afford if it is to keep pace with development.

Whereas percentage of safe delivery is considerably low, if we segregate institutional delivery, it becomes even lower. In the prevailing scenario across the State, home delivery is something, which need be avoided with concerted effort. The Auxiliary Nurse Midwives attached to the Sub-centres usually do not stay within

their service area and do not provide any direct service during delivery. The traditional birth attendants (Dais) or the quack practitioners mostly attend the deliveries within the confines of home of the mothers. Although efforts have been made to train up the traditional birth attendants through hands on training programmes, often the persons who have received training are not the persons who attend births. Naturally the practices like 5-cleans and other precautionary measures are not properly taken. Quick access being a grave problem in far flung areas, it becomes all the more difficult to reach out to the health facilities having arrangements to handle critical cases in case any complication arises during delivery. Here too the Government machinery should gear itself up to promote institutional delivery. Provision of referral transport facilities to the poor families, identifying the danger signs of pregnancy during ante-natal check ups and clear communication of the risks involved in insisting on home deliveries are some of the steps in the right direction which need further consolidation.

Immunisation of mothers and children is another area, which needs special attention. Here, wide anomalies exist between reported coverage and evaluated coverage of pregnant women and children with immunisation services. Every year, data generated by the health system through the process of reporting from the facilities show a very high degree of performance. But whenever we have any kind of coverage evaluation or any other kind of survey, the findings project a very dismal picture. The RCH data provided in the table above show only 38.9 percent children vaccinated with all antigens, BCG, OPV, DPT and Measles in required doses within one year of their lives. But if we go through the reported data in relation to individual antigens, a very rosy picture of achievement emerges. Reporting from the facilities has largely become mechanical in absence of a comprehensive mechanism for monitoring. A properly oriented district and block health officials could have used the reported data for analysis of performances of individual facilities and plugging the gaps in performance. This aspect too needs enhanced focus.

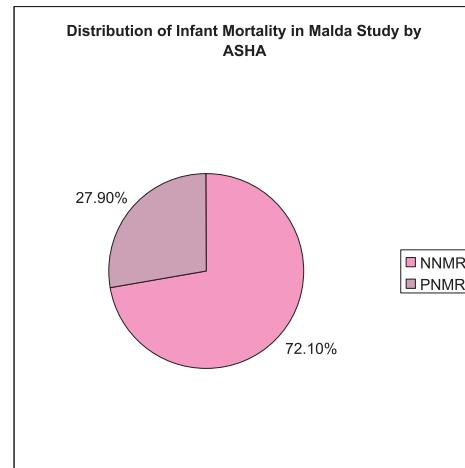
Percentage of low birth weight babies is found to be exceedingly low in the district, although prevalence of malnutrition amongst children and even the pregnant women is alarmingly high in the district. This indicates an inherent flaw in the system where most of the children delivered at home are not weighed in time to give authentic data.

## Findings of a study on infant deaths in Malda

ASHA (Association for Social and Health Advancement), a non-Government organisation conducted a study on Infant Mortality in Bamongola, Harischandrapur-1, Kaliachak-2 and Ratua-2 Blocks with reference to 2003. A total number of 2107 families were surveyed. The sample spread over 415 urban and 1692 rural households, average family size having been 4.64. In the surveyed population there were 176 eligible couples per 1000 people.

The first important finding was on infant mortality. On the basis of data obtained, IMR was calculated at 50.72 per 1000 live birth.

Distribution of infant mortality amongst the neonates and the peri-natal segment may be seen from the pie chart. 72% of the infant deaths occurred within seven



days of birth of the child. Major causes of Infant Death are birth asphyxia, low birth weight, sepsis, prematurity and acute respiratory infections.

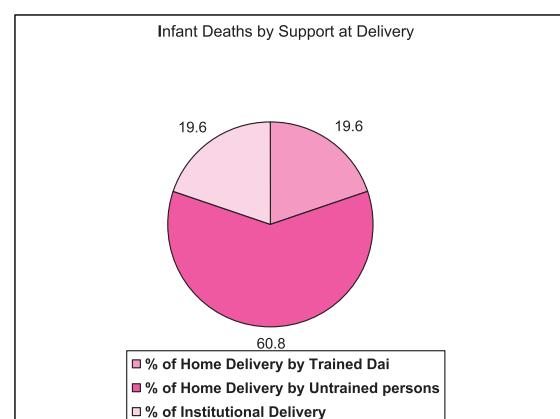
94.8% of the Infant Deaths occurred at households having low standard of living.

Another important finding was on institutional delivery. The graph below presents the picture of the place of delivery as identified through the survey:

60.8% deliveries occurred at home attended by untrained personnel and 20.6% deliveries were institutional.

An effort was made to see if there is any linkage between infant death and the birth weight of the infant. No correlation, however could be developed as only 18.2% infants were found to be below 2 KG at birth as against 63.2% above 2.5 kgs.

ANC check up was comparatively better as 80.8 percent of the pregnant women had three ANC check ups. However, if we calculate registration of pregnancy within three months, it was a meager 19.2%.



## Analysis of immunisation performance in the district

The following table gives an indication on the reported performance in routine immunization services in the district across the years:

**Table: Performance of the Routine Immunisation Programme in Malda District**  
**Reported achievement in percentage of ELA**

Block	BCG-03-04	BCG-04-05	BCG-05-06	DPT-03-04	DPT-04-05	DPT-05-06	OPV-03-04	OPV-04-05	OPV-05-06	MsIs-03-04	MsIs-04-05	MsIs-05-06
Harischandrapur 1	110	85	93	106	68	90	106	63	91	76	69	87
Harischandrapur 2	110	111	119	84	79	94	82	81	94	76	86	87
Chanchal 1	105	99	109	98	102	114	98	102	107	72	98	97
Chanchal 2	132	104	96	124	101	95	124	101	96	117	99	85
Ratua 1	113	110	142	91	83	95	91	83	94	61	81	84
Ratua 2	145	96	96	132	87	89	132	87	89	107	82	85
Gajol	93	87	85	91	80	78	93	82	78	61	77	73
Bamangola	109	73	118	114	74	115	113	73	117	84	64	107
Habibpur	101	85	98	95	91	94	94	90	94	86	81	90
Old Malda	141	78	101	137	80	108	138	80	104	111	71	93
Englishbazar	121	90	102	104	87	101	102	86	102	87	84	92
Manikchak	136	98	98	125	82	86	125	82	89	93	84	82
Kaliachak 1	137	110	110	121	91	82	122	91	82	76	84	72
Kaliachak 2	108	91	120	93	86	106	93	87	106	80	77	99
Kaliachak 3	116	104	110	102	90	97	102	92	97	70	90	86

Source: Office of the Chief Medical Officer of Health, Malda

BCG always has the highest percentage of coverage. In 2003-04, BCG coverage varied from 101% to 141%. In 2004-05, however, there was a dip in performance and the range became from 73% to 111%. In 2005-06, again, the range varied from 85 to 142 percent. In between BCG, which is administered immediately after birth and Measles, which is administered between ten to twelve months of a child, a considerable number of children drop out. Thus measles vaccination always shows lesser coverage.

This high degree of reported performance and alarmingly low validation of the figures pertaining to number of children fully vaccinated within one year of age, led us to believe that there are certain problems in calculating number of children to be immunised. When Community Needs Assessment Analysis was introduced in late nineties, the era of imposition of targets from above was replaced by a target free

approach. The basic idea was not to provide target holidays to the field functionaries, but to arrive at an Expected Level of Achievement (ELA) based upon a series of participatory processes involving local people. In practice, CNAA was largely incomplete and ELA is mostly an arbitrary set of figures arrived at by the Sub-centre worker based on her performances in the previous year. As the base in calculating ELA, i.e., performance of the Sub-centre in the previous year was always different from the actual number of children or pregnant women requiring vaccination, the process was always wrought with anomalies. In any plan for offering immunisation services, the target should obviously be to cover all children in the appropriate age group and all pregnant women. But as the ELA calculation always lagged behind the number of target group people to be covered, there was underachievement shrouded under the apparent facade of over-achievement.

**Table: Difference between Estimate Births and ELA: Malda Blocks**

SL NO	Block	Census population 2001	Total Population#	Estimated Birth Rate (2004-05)*	Estimated Births	ELA	Difference between Estimated Birth and ELA
1	Harischandrapur 1	162406	183212	32	5863	3959	1904
2	Harischandrapur 2	198039	223340	35.6	7951	5975	1976
3	Chanchal 1	174204	197534	28.4	5610	4180	1430
4	Chanchal 2	165192	186370	32	5964	5105	859
5	Ratua 1	217356	220649	32.2	7105	4852	2253
6	Ratua 2	160904	160922	31.7	5101	5168	-67
7	Gajol	294715	332584	27.3	9080	7600	1480
8	Bamangola	127252	136365	24.7	3368	2502	866
9	Habibpur	187650	210000	25.2	5292	4020	1272
10	Old Malda	131255	160236	27.2	4358	3613	745
11	English Bazar	226236	252935	28.4	7183	5520	1663
12	Manikchak	214127	214123	30.6	6552	6630	-78
13	Kaliachak 1	310935	350720	29.9	10487	10329	158
14	Kaliachak 2	211406	190653	30.7	5853	4370	1483
15	Kaliachak 3	284376	320853	32.1	10299	9057	1242
<b>Total</b>	<b>Maldah Rural</b>	<b>3066053</b>	<b>3340496</b>		<b>100066</b>	<b>82880</b>	<b>17186</b>

# Projected population for 2006 as obtained from the Offices of respective BMOH

\* As indicated in the block-wise birth rates of West Bengal in Health on the March, 2004-05

In the table above, we have calculated children in 0-1 year age group based on the birth rate for individual blocks as reported by the Health & Family Welfare Department in Health on the March, a publication of the State Bureau of Health Intelligence. The difference between the arbitrarily arrived at ELA and the figures pertaining to Expected Births are considerably at

variance in most of the blocks, the variation is even as high as 2253 as in the case of Ratua-I Block.

After making necessary corrections in the figures pertaining to number of children to be immunized, we have modified the achievement figures of individual blocks and arrived at the figures as detailed in the following table:

#### **Reported immunisation coverage in different blocks of Malda district**

SL NO	Block	Total Population#	Estimated Birth Rate (2004-05)*	Estimated Birth	RI Coverage (in number and percentage)							
					BCG	BCG%	OPV3	OPV%	DPT3	DPT%	MsIs	MsIs%
1	Harischandrapur 1	183212	32	5863	3697	63.06	3609	61.56	3555	60.64	3448	58.81
2	Harischandrapur 2	223340	35.6	7951	7091	89.18	5624	70.73	5624	70.73	5119	64.38
3	Chanchal 1	197534	28.4	5610	4553	81.16	4483	79.91	4985	88.86	4065	72.46
4	Chanchal 2	186370	32	5964	4885	81.91	4883	81.88	4866	81.59	4314	72.34
5	Ratua 1	220649	32.2	7105	6914	97.31	4563	64.22	4618	65.00	4055	57.07
6	Ratua 2	160922	31.7	5101	4958	97.19	4589	89.96	4589	89.96	4388	86.02
7	Gajol	332584	27.3	9080	6491	71.49	5909	65.08	5943	65.45	5595	61.62
8	Bamangola	136365	24.7	3368	2946	87.46	2916	86.57	2872	85.27	2665	79.12
9	Habibpur	210000	25.2	5292	3940	74.45	3786	71.54	3784	71.50	3606	68.14
10	Old Malda	160236	27.2	4358	3651	83.77	3755	86.16	3919	89.92	3355	76.98
11	English Bazar	226236	28.4	7183	5621	78.25	5620	78.24	5591	77.83	5098	70.97
12	Manikchak	214123	30.6	6552	6480	98.90	5874	89.65	5700	86.99	5444	83.09
13	Kaliachak 1	350720	29.9	10487	11390	108.62	8487	80.93	8492	80.98	7422	70.78
14	Kaliachak 2	190653	30.7	5853	5226	89.29	4628	79.07	4648	79.41	4321	73.82
15	Kaliachak 3	320853	32.1	10299	9996	97.05	8779	85.24	8783	85.28	7811	75.84
<b>Total</b>	<b>Maldah Rural</b>	<b>3340496</b>		<b>100066</b>	<b>87839</b>	<b>87.78</b>	<b>77505</b>	<b>77.45</b>	<b>77969</b>	<b>77.92</b>	<b>70706</b>	<b>70.66</b>

Thus, the difference between the reported coverage and calculated coverage in routine immunisation interventions for the 0-1 year age group children clearly

brings out the gaps in the reporting system. The following table really serves as an eye opener:

**Table : Difference between reported coverage and calculated coverage across blocks-Malda**

SL No	Block	BCG % Reported	Calculated	Difference	OPV % Reported	Calculated	Difference	DPT % Reported	Calculated	Difference	Measles % Reported	Calculated	Difference
1	Harischandrapur 1	93	63	30	90	62	28	91	61	30	87	59	28
2	Harischandrapur 2	119	89	30	94	71	23	94	71	23	87	64	23
3	Chanchal 1	109	81	28	114	80	34	107	89	18	97	72	25
4	Chanchal 2	96	82	14	95	82	13	96	82	14	85	72	13
5	Ratua 1	142	97	45	95	65	30	94	64	30	84	57	27
6	Ratua 2	96	97	-1	89	90	-1	89	90	-1	85	86	-1
7	Gajol	85	71	14	78	65	13	78	65	13	73	62	11
8	Bamangola	118	87	31	115	87	28	117	85	32	107	79	28
9	Habibpur	98	74	24	94	72	22	94	72	22	90	68	22
10	Old Malda	101	84	17	108	86	22	104	90	14	93	77	16
11	English Bazar	102	78	24	101	78	23	102	78	24	92	71	21
12	Manikchak	98	99	-1	86	90	-4	89	87	2	82	83	-1
13	Kaliachak 1	110	109	1	82	81	1	82	81	1	72	71	1
14	Kaliachak 2	120	89	31	106	79	27	106	79	27	99	74	25
15	Kaliachak 3	110	97	13	97	85	12	97	85	12	86	76	10

As could be seen from the Table above, Ratua 2, Manikchak and Kaliachak 1 have parity between the two sets of calculations, ELA based and Estimated Birth Rate based. For the rest, variations are obvious. However, if we probe a little deeper, it would be found that the data supplied by the Block Health functionaries in the three blocks mentioned, did not take the increments in post-Census 2001 population into account and supplied the Census population only.

## **Status of maternal care in pregnancies**

Maternal mortality and morbidity are severe impediments to human development. In countries like India, maternal mortality is relatively higher. Estimated at 437 deaths per 100000 live births, most maternal deaths are caused by infection, hemorrhage, eclampsia, obstructed labour, abortion and anemia. Lack of spacing between children — 37% of births occur within two years of the latest birth — also exacerbates mortality rates. Lack of appropriate care during childbirth is held primarily responsible and studies

show that referral to appropriate health care facilities can prevent a majority of such deaths.

Status of maternal care amongst units can be compared from a number of perspectives:

Antenatal care services include

- ANC registration
- ANC check up by health functionaries
- Administration of tetanus Toxoid doses and
- Distribution of iron folic acid.
- Post delivery complications are often responsible for mortality and morbidity amongst both the mothers and the newborns. Hence PNC visit by the health worker assumes significance.

Care during delivery largely depends upon the place of delivery and the presence of skilled attendant/ trained attendant at birth. One is supposed to receive trained attendance when a trained Doctor/ Nurse or an ANM directly handles the delivery whereas a trained Dai also qualified as trained birth attendant. The following table summarises performance of Malda district as a whole in terms of ANC, NC and PNC services:

**Table: ANC, NC and PNC services in Malda district during 2005-06**

ANC Registered	93% of pregnancies
3 Ante-natal Check ups completed	46% of registered pregnant women
IFA tablets supplied	75 % of registered women
Tetanus Toxiod (2nd/ Booster dose) administered	85 % of women registered for INC
Institutional deliveries as percentage of total deliveries	26.5%
Skilled + Trained deliveries as percentage of total deliveries	88.3%
3 Post-natal Check ups completed	54% of reported deliveries

Source: Office of the CMOH, Malda

Out of all the issues connected with maternal health, institutional deliveries are rated as single largest contributor to well being of pregnant women as well as survival of the neonates. Performance of individual

blocks during 2003-04 and 2004-05 as shown in the table below give a fair idea of the status of this vital aspect of maternal healthcare:

**Table : Maternal Healthcare Services in Malda District**

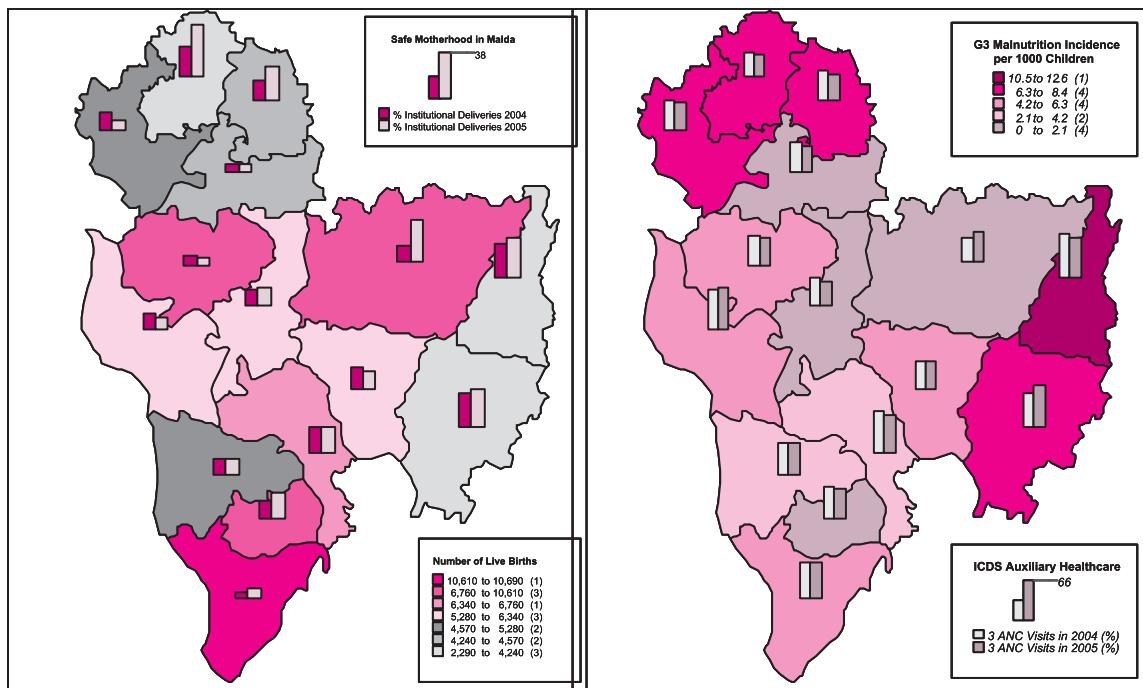
Name of Block	% of Institutional Deliveries	
	2004-2005	2003-2004
Harischandrapur 1	23.08	37.56
Harischandrapur 2	11.56	7.47
Chanchal 1	15.2	25.62
Chanchal 2	7.13	7.44
Ratua 1	6.7	5.88
Ratua 2	11.99	12.69
Gajol	12.3	30.61
Bamangola	24.93	30.24
Habibpur	24.27	27.33
Old Malda	16.33	14.05
Englishbazar	19.08	19.45
Manikchak	12.46	8.62
Kaliachak 1	14	19.39
Kaliachak 2	12.11	10.71
Kaliachak 3	5.09	6.97

Current regional patterns in certain maternal & child health indicators in Malda district may be explored visually in the associated map charts. The chart to the left correlates the blockwise occurrence of live births reported by ICDS sources, to the blockwise incidence of institutionalised deliveries. Although high birth rates in Malda district occur in three distinct regional clusters comprising Kaliachak 3 (>11,000 births annually) & Kaliachak 1 blocks (> 10,000 births annually) along with Englishbazar block (> 6000 births annually), Ratua 1 block (> 6000 births annually) and Gajol block (> 6000 births annually), the causes of high birth incidence in each cluster are largely dissimilar. In Gajol, the high incidence of births may be attributed solely to the large

territorial size of the block unit. High birth incidence in Ratua 1 and Englishbazar can be attributed both to territorial size as well as dense settlement, while in Kaliachak 1 and Kaliachak 3 which record the highest overall birth incidence in the district, this may be attributed principally to extremely dense settlement. Low birth rate clusters in Malda district exist in Habibpur (< 3000 births annually) and Bamangola blocks (< 4000 births annually) in the Barind, and in Harischandrapur 1 block (< 3000 births annually) in the Tal region. In a cluster of three blocks in the northern Tal, comprising Harischandrapur 2 and Chanchal 1 & 2, birth incidence is also relatively low (< 5000 births annually). As the barcharts

superimposed on the regional map show, the incidence of institutionalised deliveries is higher in most of the low birth clusters lying to the west and north of Malda district, but is generally lower in the high birth clusters, providing some basis for the belief that improvement in the rates of institutionalised deliveries shall eventually help in bringing down birth rates in Malda district. However, since the institutional facilities in the highly populated blocks are inadequate for institutionalising the large number of deliveries that

take place annually, a beginning can only be made by expanding public healthcare facilities in such regions to the point where these are commensurate to the overall size of the block population. Rather than needing an even spread of public healthcare facilities across the district, primarily as a result of the administrative model that presently defines the location of healthcare institutions, Malda district actually requires a clustering of healthcare facilities that reflects the clustering of population within the district.



### Prevalence of malnutrition amongst children in the district

The chart to the right correlates the nutritional status of children in Malda district with the auxiliary nursing and counseling services extended to the community by health staff and ICDS *Anganwadi* workers. The incidence of Grade 3 & Grade 4 malnutrition, described under the Waterlow grading system as an actual weight for an infant child that amounts to 70 percent or even less of average weight predicated for its current height, may thus be compared with the rate of completion of three ANC visits to each post-natal home, as required under ICDS. Specifically, Grade 3 malnutrition describes infant children between 0-5 years in age, with a birth weight of 2 kg rising to a 5 year-old weight of 11 kg, while Grade 4 malnutrition describes infants in the weight range from a birth weight of 1.5 kg to a 5

year-old birth weight of 9 kg, against the normal weight range from a birth weight of more than 2.75 kg to a 5 year-old weight of more than 15 kg which describes a normal child. Under such nutritional yardsticks, the most severe incidences of malnutrition are found in Bamangola where more than 12 out of every 1000 children in the 0-6 year age-group are found to be suffering from G3/G4 malnutrition. This is followed, in declining order of severity, by Chanchal 1 and Harischandrapur 2 blocks where the incidence of G3/G4 malnutrition affects approximately 8 out of every 1000 children, and then by Harischandrapur 1, Ratua 1, Habibpur and Manikchak blocks where G3/G4 malnutrition is found among 6-7 out of every 1000 children. The incidence of malnutrition is highly worrying in almost every part of Malda district, except

perhaps in the north-central portion of the district, comprising Chanchal 2, Ratua 2 and Gajol blocks where G3/G4 malnutrition incidence is found among 1-2 out of every 1000 children.

However, despite the overall severity of malnutrition incidences in many parts of Malda district, the rate of ANC home visits do not show any particular response pattern that reflects the rate of malnutrition incidence, except perhaps in Bamangola, Habibpur and possibly Manikchak. Through most parts of the district, ANC visits tend to be routine and do not indicate that a system of proactive MCH healthcare is in fact in place, to meet rural needs.

## **Status of Drinking Water in the District**

Access to safe drinking water is one important precondition for long and healthy lives for the people of the area. Thus availability of safe drinking water is a human development concern for all practical purposes. Interestingly the regional pattern of Tal, Diara and Barind has its effect on drinking water scenario of the district as well: Barind being in the run off area, water table is low and sinking of tube-wells are very expensive leading to low coverage. Diara region, on the other hand, is arsenic prone, thanks to its position in the Ganga flood plane. Drinking water condition in

the Tal region is comparatively better. Arsenic Fluoride contamination is a serious problem in the district. Arsenic contamination has gone beyond the Diara region and has affected Ratua 1 and Ratua 2 as well. Habibpur and Gazol are the two blocks where Fluoride level is above average. The problem of Fluoride contamination is seen in Kaliachak 1, Kaliachak 2 and Manikchak as well. Public Health Department functionaries in the district provided data on position of tube-wells in the district as on 1 April 2006. The data, however, was incomplete as no figures were available for Habibpur and Bamongola blocks. From available figures it could be seen that barring the two blocks referred above and the two municipalities, the district had 12282 ordinary tube wells and 2147 DWP Tube wells in running condition at the time of the survey undertaken with 1 April 2006 as the reference date.

Pipe water supply schemes had its root in the district in the first scheme taken up by the Public Health Engineering Department way back in 1966-67 in Kaliachak area. The project implemented in Baliadanga in Kaliachak at a cost of 14.67 lakhs covered 53 habitations spread across 14 villages. Since then we have a total number of 47 pipe water supply schemes implemented in the District with a cumulative investment of Rs. 18293 lakhs covering 1581 habitations in 576 villages.

### **Pipe-water supply projects in Malda**

Scheme	No. of Projects	Amount invested	Villages	Habitations
MNP	13	669.55	98	270
ARWSP	28	1149.39	144	458
PMGY	2	4316.5	165	390
Arsenic Sub-mission	4	12157.63	169	463
Total	47	18293.07	576	1581

It could be seen from the table above that the projects under MNP and ARWSP were smaller in terms of funding and coverage whereas the projects under PMGY and Arsenic Sub-mission were much bigger in physical and financial terms.

Public Health Engineering Department maintains data on coverage of Mauzas (Villages) and Habitations in terms of availability of drinking water. A village is said

to be fully covered when the villagers have drinking water available within a distance of 200 meters and the supply capacity is at least 40 liters per head per day. The following chart gives relating position of the Blocks in terms of habitations having been covered by safe drinking water sources. Here safe drinking water sources include ordinary tube wells, DWP tube wells and pipe water supply schemes.

Sl. No.	Block Name	Total Habitations	Habitations Fully Covered	Partly covered	Not covered
1.	Harischandrapur 1	3028	732	2027	269
2.	Harischandrapur 2	1619	831	758	30
3.	Chanchal 1	1464	744	686	34
4.	Chanchal 2	3311	1900	1197	214
5.	Ratua 1	3224	2202	938	84
6.	Ratua 2	1052	278	619	155
7.	Gajol	8618	1654	4231	2733
8.	Bamongola	7564	2340	2894	2330
9.	Habibpur	18622	7716	2777	8129
10.	Old Malda	6123	1064	1691	3368
11.	English Bazar	3714	1392	1801	521
12.	Manikchak	2465	1408	956	101
13.	Kaliachak 1	1812	267	1416	129
14.	Kaliachak 2	1041	469	528	44
15.	Kaliachak 3	1149	377	690	82
<b>Total of 15 Blocks</b>		<b>64806</b>	<b>23374</b>	<b>23209</b>	<b>18223</b>

An analysis of this data set clearly reveals that the Barind region is water deficient whereas both Tal and Diara follow a mixed pattern. Relatively better position of the Diara region is largely due to coverage of larger areas with pipe water supply schemes because of existence of arsenicosis in ground water in the region.

## Sanitation in the District

A proper sanitation facility for the people irrespective of their economic and social status is a prerequisite for

human development. In this aspect too data from Census 2001 indicated the position of Malda in the lower rung of development in the State. Even after introduction of Total Sanitation Campaign in 2002-2003, much headway could not be made in construction of household sanitary latrines. In the Primary School category, the progress was relatively better. The following Tables give the overall picture of the district and its constituent blocks in the sanitation sector, especially in relation to construction of household sanitary latrines and sanitation blocks in the Primary Schools.

**Table : Status of household sanitary latrines in the District**

*Source* : Malda Zilla Parishad

**Table Status of Sanitation coverage in Primary Schools**

Total number of Primary Schools	
No. of Primary Schools where Sanitary Latrines have been constructed under Total Sanitation Campaign	1155
Toilets constructed from other sources	248
Number of Pry. Schools without sanitary latrines	466

Source: Malda Zilla Parishad

**Table: Block-wise scenario on sanitation (till September 2006)**

SL No	Name of Block	Target of Household Sanitary Latrines under TSC	Household Sanitary constructed under TSC	% of achievement
1	Harischandrapur 1	35270	5991	16.99
2	Harischandrapur 2	31088	7078	22.77
3	Chanchal 1	31688	4702	14.84
4	Chanchal 2	35415	7609	21.49
5	Ratua 1	36898	8405	22.78
6	Ratua 2	28781	7115	24.72
7	Gajol	38535	4043	10.49
8	Bamangola	53627	13830	25.79
9	Habibpur	22781	14885	65.34
10	Old Malda	23214	7726	33.28
11	English Bazar	33847	7883	23.29
12	Manikchak	36552	5791	15.84
13	Kaliachak 1	53137	5909	11.12
14	Kaliachak 2	30601	6457	21.10
15	Kaliachak 3	46470	11407	24.55
<b>District Total</b>		<b>538904</b>	<b>118831</b>	<b>22.05</b>

Analysis of sanitation data as supplied by the Zilla Parishad gives some interesting insights into the status of sanitation coverage in the district. It also raises some serious questions on the feasibility of Total Sanitation Campaign as a strategy to achieve coverage of all households with in-house sanitary latrines.

The campaign was initiated in 2002-03 financial year. Even prior to the Campaign, the district was covered under Rural Sanitation Programme. There are NGO-managed Sanitary Marts in all the fifteen blocks of the district. Substantial amount was advanced to the Sanitary Marts for construction of workshed and as working capital to run the activities by engaging an army of personnel as Mart Managers, Master Masons and Master Motivators. But performance of the Sanitary Marts in relation to construction of household sanitary latrines is precariously dismal. The district taken as a whole, only 19.6 percent of the households have been covered with household sanitary latrines.

Another important philosophical mooring of Total Sanitation Campaign is the concept of zero subsidy. It is behaviour change communication at the household level and other IEC measures which is largely banked upon to promote construction of sanitary latrines. Only for the families living below poverty line, a partial contribution of Rs.200.00 was made by the programme as reimbursement. Naturally it was thought that the programme would hinge upon the campaign aspect and people would be motivated to construct their own sanitary latrines with technical support from the Sanitary Marts. But analyses of performances in the district reveal that sanitary latrines are largely constructed by the BPL families. Although target for construction was marginally higher in the BPL category, performance in the said category (87050) far surpasses the APL category (31781). Does it not indicate that subsidy was the driving force behind construction of sanitary latrines by the families?

In terms of achievement in construction of household sanitary latrines, Bamangola ranks highest in the district with Old Malda a distant second. No specific regional pattern emerges from an analysis of sanitation data. Both Kaliachak 3 and Kaliachak 1- a high performing and a low performing block respectively belong to the same Diara region. Again variations in achievement in Ratua 2 and Harischandrapur 1 – both in the Tal region can not be explained by any regional logic. It needed further study to understand the specific dynamics of sanitation activities in the district. It may be the tenacity of the Sanitary Mart, it may be the involvement of the Panchayat organizations. It may be the leadership provided by the Block Development Officer or a combination of these factors that is responsible for higher level of performance in individual block.

### Analysis of Health Situations in Ganga *Chars* and *Diaras*

Malda district can be classified into three ecological subregions based on physiographic attributes such as topography, elevations, water table depths and soil morphology. Besides influencing the regional patterns of economic life, microclimatic and habitat variations across these subregions also affect the physical attributes of their populations leading to intrinsic differences in morbidity, birth rates and death rates as well as in the endemicity of disease. Although primary health services provided through the State healthcare system cover the rural populations in each of the district's 15 development blocks, additional factors such as local socioeconomic profiles and healthcare accessibility also have notable bearing on the acceptability of healthcare services by the regional populations, and therefore on the cumulative health profile of the district.

Nowhere is this critical situation brought out more strongly than in the *chars* and riverine tracts of the Diara, where accessibility of health services depends directly on the physical access that the resident population has to the means of communication. The presence of standing and flowing water in this region through the greater part of the year physically impedes the mobility of the local population and also multiplies the incidence of diseases that have a close association with water. The *chars* in particular are riverine islands

cut off from easy concourse with the rest of the district by river tracts that must be forded, with boats as the dominant means of communication. The population of the *chars* thus lives in relative isolation from all state-provided services and does not have easy access to healthcare. Five of the 15 development blocks in Malda district, namely Harischandrapur 1, Ratua 1, Manikchak and Kaliachak 2 & 3 include several riverine islands, on which the coverage of the resident population by public healthcare services is constrained by such physical barriers. Bhutni Diara in Manikchak block - the largest of these islands - is also reputedly the second-largest riverine island in Asia after the island of Majuli on the Brahmaputra near Guwahati.

Since the coverage of the population resident on the Malda *chars* and *diaras* by state healthcare services is minimal, basic awareness of modern healthcare and sanitation methods is also limited among the residents. This is compounded by the lower levels of literacy that prevail in such areas, once again because of difficulties in physical access. Thus the fate of those residents who have the misfortune to fall ill often hangs in the hands of local healers, quack doctors, *ojhas* and *gunins*. The incidence of preventable death is ascribed to the will of God. Because of such compound handicaps, women still have little say in matters relating to family health and family welfare, with early marriages being the norm rather than the exception. The final decision in all such matters is made by the male spouses or in-laws. Maternal healthcare and family planning [FP] services are therefore seldom availed by the women residents because of general ignorance as well as difficulties of access, leading to the cycle of poor birth-spacing, repeated childbirths and inadequate childcare, accompanied by child morbidity and mortality. Poor literacy and poor awareness about the need for proper sanitation also multiply public and personal health risks, while the general poverty of the population residing on the *chars* and *diaras* mutes its ability to discern or articulate its healthcare needs.

### Chars & Diaras in Harischandrapur 2 Block

The river *chars* and *diaras* in Islampur GP comprise Uttar Bhakuria, Dakshin Bhakuria, Kaowadole, Rashidpur villages and a part of Mihaghat, with a population of approximately 7425 persons. Par Bhaluka occupies a

*char* that has risen at the extremity of Bhaluka GP, wedged between the Fulahar river and the interstate boundary with Bihar. The entire *char* population is served by a single SC located at Rashidpur, which provides routine immunisation services to children and also distributes temporary FP devices such as oral contraceptive pills and condoms. Such services are accessible at the SC on weekly clinic days. However, the SC also conducts periodic outreach programmes in order to reach the scattered population that inhabits the *chars*. Though drinking water at most locations is now sourced from tubewells, the status of sanitation is minimal and open-air defecation is widely practised. Deliveries in the *char* region are mostly non-institutionalised, assisted by both trained and untrained *dais*.

## Chars & Diaras in Ratua 1 Block

Located on the western fringes bordering Bihar, Mahanandatola GP and Bilaimari GP in Ratua 1 block are also separated from the main landmass of the district by the Fulahar and the relict Kosi rivers. The only PHC serving the region from Mahanandatola, is now in a sorry state with dilapidated buildings and staff quarters, and is run by a single Pharmacist assisted by a GDA. No Medical Officer is posted there at present. Routine immunisation services, FP aids and antenatal care are provided by the PHC on weekly clinic days. However, the two SCs located at Sambalpur (Jagabandhutola) and Sudamtola are presently non-functional, as health staff are yet to be posted.

The population residing in Mahanandatola GP is largely Hindu and literacy is relatively high both in Mahanandatola and the Kataha *diara* areas. Several persons from this region who have acquired an education have subsequently resettled in other parts of the district. Literacy in the other villages of Mahanandatola GP is still low, however, accompanying low levels of health awareness and sanitation. Drinking water in the area is now provided by tubewells. The adoption of family planning [FP] practices by the population resident here is relatively satisfactory, because of the lower incidence of early marriage and better knowledge of birth spacing, contraception and childcare. Although deliveries are still largely non-institutionalised, a fair proportion of them are now assisted by trained *dais*.

Bilaimari GP on the other hand has a largely Muslim population among whom literacy had previously been less than 10 percent, although the present generation seems more inclined to education as a result of which current school enrolment is increasing. Although drinking water is now provided to the area from PHE tubewells, sanitation arrangements are still primitive. The cultural dominance of Muslim males often compels Muslim women to forego birth spacing methods and contraception, also leaving them ignorant about basic issues in mother & child health. Morbidity and even mortality is consequently high among women and children. Both because of distance and healthcare ignorance, access to hospital services is only resorted to in emergency conditions. Nearly all deliveries still occur at home under the supervision of untrained *dais*.

## Chars & Diaras in Manikchak Block

Because of its location along the main channel of the Ganga, Manikchak block has the largest proportion of *char* and *diara* lands in Malda district. Of these, Bhutni *diara* is the largest and oldest and presently comprises three GPs with an aggregate population exceeding 66,000. The island at Bhutni, which is reputed to have risen from the river during the time of emperor Aurangzeb, is now protected against new incursions of the river by a large circular embankment. However, the sole access to the district mainland is by riverboat, which considerably enhances the relative isolation of the resident population. Each riverine GP on Bhutni *diara* comprises a portion of the main island as well as a number of satellite *chars* that have arisen along its shoreline. Hiranandapur GP thus includes the river islands of Gadai Char, Rambari Char and Suksena Char. Gadai Char - the largest of these - which accommodates 21 *tolas* or habitations and is separated from the main mass of the district by the principal channel of the Ganga, constitutes disputed territory on which the states of West Bengal, Jharkhand and Bihar have laid alternate claims. The majority of the people who have settled on the *char* are fisherfolk. In contrast, Rambari Char and Suksena Char are considered unfit for human occupation and consequently have no settlements. While securing healthcare services, the principal difficulty faced by the *char* population is inaccessibility, since it takes an hour

and a half to reach the *char* by mechanised boat from the main island of Bhutni. Consequently, no health services are rendered to the *char* population by either of the three State healthcare facilities located on Bhutni *diara*. Education levels are also very low among the inhabitants. Although the population here is entirely Hindu, early marriages and repeated childbirths unassisted by trained *dais* are thus the norm, accompanying poor levels of public health awareness and sanitation. Access to safe drinking water is also minimal.

Bhutni PHC, which serves the principal island of Bhutni *diara*, is located on the western extremity of Dakshin Chandipur GP. It is staffed currently by a Medical Officer, a Pharmacist, a GDA and a sweeper. Both emergency and outdoor services are provided by the PHC to the *char* and *diara* settlements. Dakshin Chandipur, with a predominantly Hindu population, is better developed, and literacy levels there are relatively higher than the two other island GPs. Drinking water in Dakshin Chandipur is obtained mostly from tubewells and at least 40 percent of rural homes are served with proper means of sanitation. Because of higher attainments of education by the resident population, the incidence of early marriage is also relatively low within the GP. Uttar Chandipur GP, which is located in the northern portion of Bhutni *diara* and is separated from the mainland by the relict Kosi river, also has a majority Hindu population. Literacy has been rising steadily in the area since the present generation is favourably inclined towards education. The resident population has access to safe drinking water and a third of all rural homes also have proper sanitation. Although the adoption of FP methods by the *diara* population is also relatively high, they still depend largely on temporary means of contraception. Thus despite high levels of FP awareness, their contraception needs are partially unmet.

Dakshin Chandipur GP also includes the Samastipur *diara* where about 50 resident families currently practice livestock herding, as well as the largely uninhabited Janakiramtola Char. Another riverine island known as Mirpur Char forms part of Dharampur GP. Because of the isolation of these riverine areas and the lack of speedy communication with the district mainland, the resident population receives very little coverage by way of healthcare

services other than pulse polio immunisation. Eight of the nine SCs that collectively serve the entire *diara* area, with the exception of Nanditola SC, are currently functional. These provide a mix of basic healthcare services to the *diara* population, which include routine immunisation and ante-natal services, as well as the distribution of temporary FP devices like condoms and oral contraceptive pills.

## Chars & Diaras in Kaliachak 2 Block

Of the 10 GPs that originally comprised Kaliachak 2 block, the erstwhile Kakribandha-Jhowbona GP has been washed away entirely because of recent erosion by the Ganga. While the river has subsequently advanced further eastward into parts of Panchanandapur 1 and Panchanandapur 2 GPs, several new riverine islands have since risen in the vicinity of the opposite riverbank which lies in Sahibganj district in the state of Jharkhand. The administrative status of this *diara* area – now known collectively as the Piarpur *diara* – is undecided between the states of West Bengal and Jharkhand. Nevertheless over 6000 people, who were originally displaced from the KB-Jhowbona and Panchanandapur areas in Malda district by river erosion, have since settled on these newly risen islands where they reside in considerable isolation from any state-provided services. Near Goldhab on the new *diara*, which is a conglomeration of 11 such habitations or *tolas*, a Hindi-medium primary school is currently being run by the Jharkhand administration. No healthcare services are being received by the *diara* population, other than immunisation of children against polio through extension of the NID and SNID programmes. To access healthcare services provided on the district mainland, these residents have to face the formidable task of crossing the Ganga by riverboat at a point where it has widened considerably, just above the barrage at Farakka. This crossing can take upto two hours. Consequently, because of such inaccessibility, the *diara* residents live beyond the pale of the modern educational and healthcare system. Both in economic and socioeconomic terms, the *diara* population – which comprises both Muslims and Hindus – represents a social community that is compelled to live beyond the reach of development and thus faces very high levels of deprivation. Because of the absence of adequate school

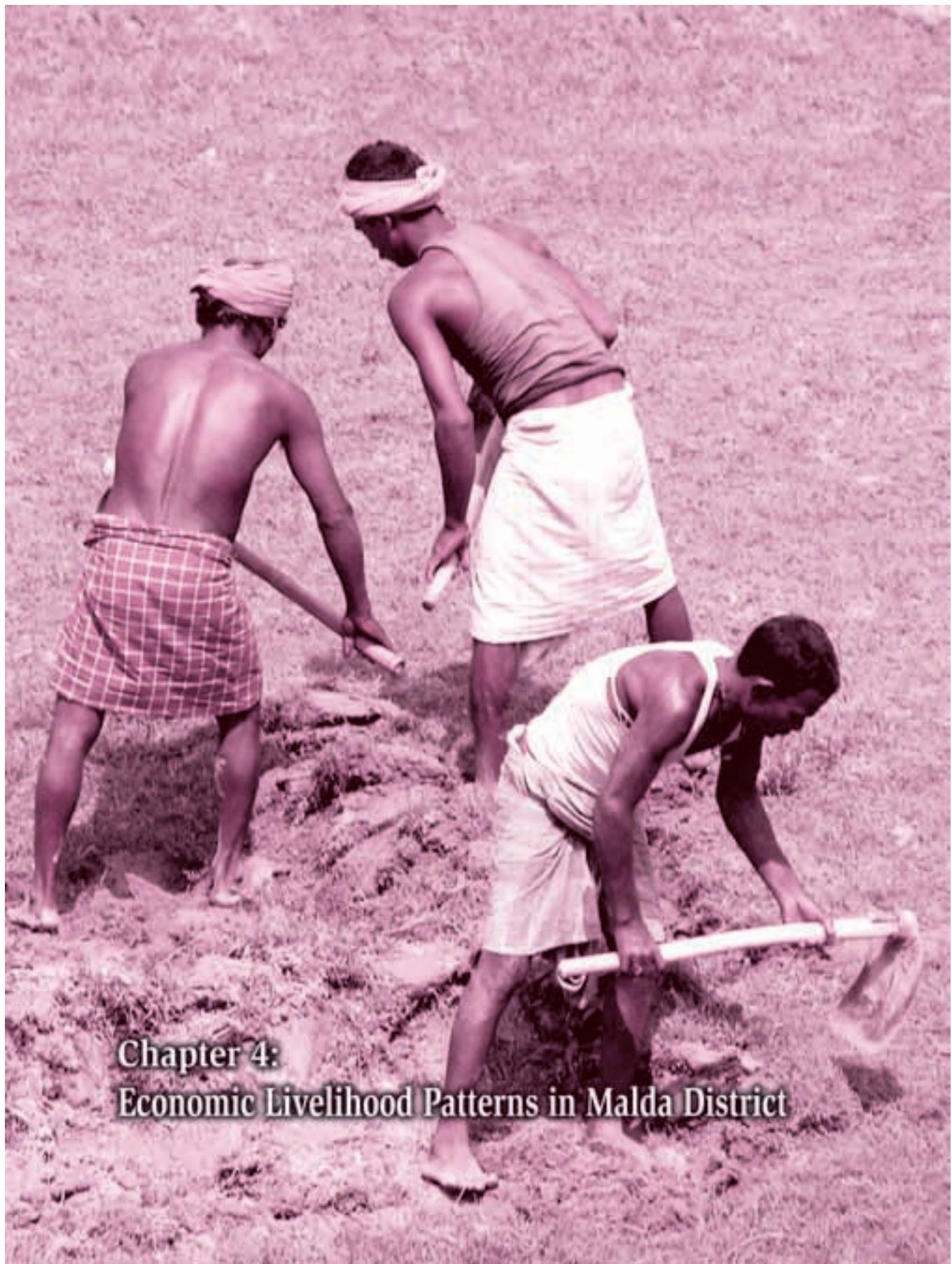
facilities, literacy levels in the *diara* are extremely poor. Sanitation is equally poor, and healthcare awareness is minimal. Since under such extreme constraints, all deliveries take place at home and are assisted by untrained attendants, the status of maternal & child health is equally poor. Nevertheless, the *diara* residents still aspire towards the educational and healthcare services provided by the state, which they had received before being displaced from the district mainland by river erosion. Their current isolation appears insurmountable, however, unless speedy mechanisms are also simultaneously set in place to resolve jurisdictional issues that arise from river erosion along an interstate boundary.

### Chars & Diaras in Kaliachak 3 Block

Of the 14 GPs that make up Kaliachak 3 block, the *diara* areas comprises Shovapur-Pardeonapur GP in its entirety, as well as several parts of Krishnapur-Bakhrabad GP and Kumbhira GP. The rural settlements or *tolas* that lie scattered across this sandy stretch are relatively inaccessible, with bicycles or bullock carts still forming the primary means of communication. The resident population, which is largely Hindu, thus faces several physical obstacles in availing public healthcare and education. Of the 8 sub-health centres [SHCs] that are located in the *diara*, 3 serve currently Shovapur-Pardeonapur GP. Nevertheless, the majority of deliveries still occur within the home under the supervision of untrained midwives, although some trained *dais* have also recently begun to offer their services to locally resident families. Literacy levels in the region have shown improving trends of late and drinking water is now sourced mainly from tubewells. However, the Kaliachak 3 *diara* areas are still backward in socioeconomic terms and community awareness about modern healthcare is accordingly low. Sanitation in the area is therefore, posing public health hazards. Although nearly 40,000 people live in the *diara*, their healthcare needs till date are largely met by quack doctors and other local healers, or else rests on the whims of fate.

Compared to the people who reside in the mainland areas of Malda district, the *char* and *diara* population currently receives minimal support from the state healthcare services and thus faces considerable deprivation in terms of personal, public and family health. This limitation is imposed by the inaccessibility of these *char* and *diara* areas and the socioeconomic backwardness of their populations, as well as the inability of the public healthcare system to extend the outreach of its healthcare services to these isolated residents because of its present institutional structure. Since a more flexible mode of healthcare delivery is required by the residents, they fall back on quacks, untrained midwives and local healers who are able to meet their healthcare needs on the spot. In practice, because of poverty and low levels of literacy among the *char* and *diara* population and their isolation from the mainland, this perpetuates the grip of outmoded social institutions like early marriage along with dubious healthcare practices and superstitions, ultimately with telling effect on the health profile of the district. Although the *gram panchayats* – as local institutions – have better outreach into the *diara* settlements and habitations, their involvement with the delivery of healthcare services is minimum. Because of such special needs, it would appear therefore that the improvement of healthcare situations in the Malda *chars* and *diaras* would require considerable reconfiguration within the current modes of rural healthcare delivery, with stress being laid on the provision of swift mobile services in partnership with the *gram panchayats* that administer these regions. In a practical sense, mobility would have to be created at two levels. Within the state healthcare system, mobility would have to be created by raising the levels of staffing where necessary, and by quick redeployment of specialised equipment and personnel through mobile or riverborne hospital services. Mobility at patient-level would require improvement in the means of communication overall, as well as the provision of special riverine ambulance services on demand to the population that inhabits the Ganga *diaras*.





**Chapter 4:**  
**Economic Livelihood Patterns in Malda District**



# Economic Livelihood Patterns

## Economic History of the Malda Region

Malda or ancient Gaur is one of the oldest settled regions in Bengal. Its political and economic importance through history has derived from its strategic location on the Ganga which gave it navigational connectivity with southern Bengal and also with North India. In more recent times, the central location of Malda within West Bengal and the road and rail links that traverse the district make it the corridor between the southern and northern parts of the state. Because of its alluvial soils and the abundance of rivers, large and small, Malda has been an important agricultural region since antiquity, leading to dense human settlement within the boundaries of the district. Rice yields have traditionally been high, making it the breadbasket of North Bengal. But the shifting of rivers and overall ecological change have left an inevitable stamp on the present patterns of human settlement, as a consequence of which settlement densities vary considerably across the district. Large parts of the Diara, now the most intensely settled region within Malda, began to attract a new population from the early 20<sup>th</sup> century, after the alluvial *chars* exposed by the Ganga's westward migration were opened for revenue settlement. Bhutni Diara to the northwest of Manikchak - now stabilised by a ring embankment against reclamation by the Ganga – was settled after 1921 by agriculturists who migrated to cultivate the river *chars* from Murshidabad district, where fresh erosion was taking place along the opposite river bank at the time. The Barind had been sparsely settled and was covered substantially by forests during earlier times, since the relative scarcity of water made it unsuitable for intensive agriculture. Tribal settlement in this region was initiated by the British in the late 19<sup>th</sup> century as a conscious policy for dispersing communities that had participated actively during the Santal Revolt of 1855. Subsequently, the Barind was also opened for refugee resettlement in the aftermath of Partition and has continued to attract a growing population since that time, because of prevailing differences in land prices between this region and the more densely settled Tal and Diara.

Besides the cultivation of field crops, sericulture is a

# Chapter 4

major auxiliary activity in several parts of the district. While *nistari* silk yarn produced in Malda was customarily supplied to silk weavers in Murshidabad and Varanasi via the medium of river-based trade, the weaving of silken cloth and fine cotton piece goods became a subsidiary source of livelihood in the region from the time when Gaur was in its heyday till the early 19<sup>th</sup> century, although all trace of the erstwhile weaving activity has vanished over the period since. Cultivation of multivoltine silk had been established in many parts of eastern India during the late Pala period, by which time silk had also become a major global trade commodity. Inland trade in silk *patta bastras* and cotton was controlled from the city of Gaur, which was a major river trading port with a large resident weaving community, regularly visited by merchants from as far afield as Awadh and western India. Historical sources opine that the first Muslim visitors to the region probably came in as merchants from the Gujarat. Chinese travellers during the period of the Iliyas Shahi dynasty reported silk and cotton manufacture to be well established in the Malda region.

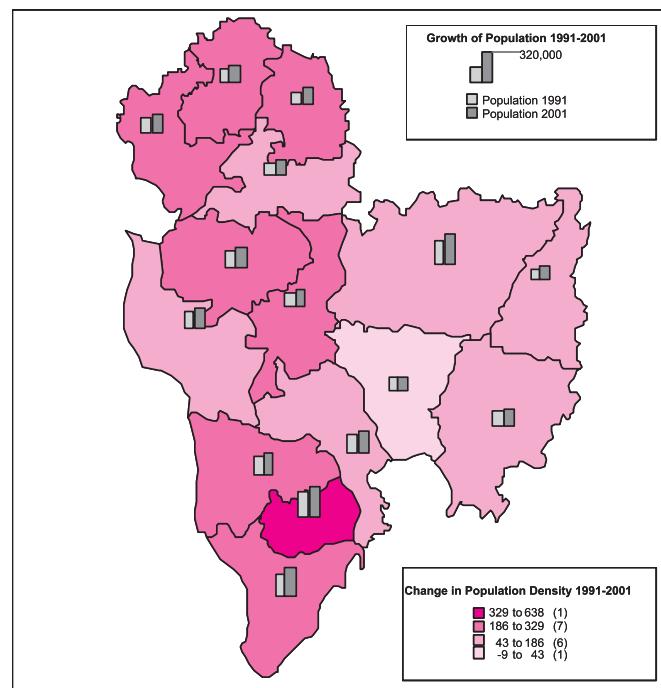
However, the importance of the textile trade rose to its zenith with the expansion of markets after the Mughal advent in Bengal in the late 16<sup>th</sup> century, and fine muslin of superlative quality was being woven in Malda at the time. Since the mercantile role of Gaur had declined by then because of progressive shifting of the Ganga, textile exports from Malda to the outer world through the agency of European traders were routed through downriver ports at Sonargaon, Dhaka, Saptagram and Kasimbazar, until the Dutch East India Company or VOC managed to establish a local trading centre at Old Malda during the early 17<sup>th</sup> century. Silk textiles from the Bengal region had become a major constituent of VOC trade with Japan by the mid 17<sup>th</sup> century. A period of intense mercantile competition followed after the English East India Company [EIC] also established its own rival factory in 1680 in the settlement of Ingruzabad or Englishbazar, across the river from Old Malda. After the granting of the Bengal Diwani to the EIC in 1765, trade competition with other European mercantile powers gradually waned and the EIC was able to consolidate its own monopoly

over the local textile trade. In 1686, the EIC had established an agency for expanding sericulture and silk weaving in the region. The usual method followed in this enterprise was to make *salami* advances to growers and weavers who had been contracted to supply piece goods made to EIC specifications on a regular basis to the Malda factory. By tying local textile producers to their own factory, the British traders were able to shut out their commercial rivals and monopolise the textile trade. Eventually, the focus of sericulture in Malda moved from *bastra* weaving to the reeling of silk yarn for bulk export to other weaving centres in India and England. With the growth of textile industry at Lancashire, artisanal weaving at Malda underwent decline and death, even though sericulture and the reeling of silk has remained an important economic activity in the Shujapur and Shershahi areas of Kaliachak.

Extending the economic linkages of textile production, commercial cultivation of indigo was introduced in Malda by the British in the year 1780. After the revolt of slaves in the island of Haiti in 1791 had reduced the supply of the commodity from the West Indies indigo plantations, these operations expanded significantly. Indigo cultivation in Bengal involved contract farming of indigo by tenant farmers in exchange for cash advances, for which *nil kuthis* (indigo houses) were established on several estates at Singatala

and Goalmati in Englishbazar, Madnabati in Bamangola, Khailsana in Ratua, Mathurapur in Manikchak, and Nazirpur, Narayanpur and Bakrabad in the Kaliachak area. The noted English missionary William Carey started residing in India as manager of the Madnabati indigo house in 1794. An indigo factory was also established at Goalmati near the old city of Gaur to process the raw indigo purchased by the *nil kuthis*. Navigability of the rivers in and around the district was the major factor that encouraged the textile and indigo trade in Malda, as this enabled the quick assembly of inland consignments for forward trade by English merchants. After the invention of synthetic aniline dyes in Germany had considerably reduced global demand for natural indigo, the erstwhile indigo farmers of Malda either switched over to sericulture or to the commercial cultivation of mangoes.

Early diversification of rural livelihoods from agriculture to commercial trade was thus among the principal reasons for the high density of human settlement in Malda district. However, the subsequent decline of cotton weaving, indigo plantation and the textile trade also led to the waning of the economic fortunes of the region, which became largely dependent on subsistence agriculture again. In time, this caused substantial deepening of human poverty in the district, and a large proportion of its rural population today is landless and survives principally on wage labour.



## Population Growth and Rural Livelihood Patterns

In 2001, the population of Malda district was 32.9 lakh, more than five times larger than the turn-of-the-century population of just over 6 lakh in 1901. Population growth was particularly sharp over the last two decades since 1981, when the district population increased rapidly from its 1981 level of 19.35 lakh and settlement density also rose sharply from 518 persons to 881 persons per sq.km. The compound rate of population growth between 1981-2001 was 2.65 percent p.a., indicating that the acceleration in population growth was as much the consequence of new migration as of high local birth rates. However, not all parts of Malda experienced the same order of population growth. In rural Malda, the highest compound rates of annual population growth between 1991-2001 were experienced by Kaliachak 3 (2.85% p.a.), Kaliachak 2 (2.58% p.a.), Ratua 2 (2.49% p.a.), and Kaliachak 1 (2.46% p.a.). Elsewhere across most of the Tal blocks and Gajol, annual population growth rates exceeded 2.2 percent p.a., but were much lower in the three other Barind

blocks of Bamangola, Habibpur and Old Malda. Variability of growth patterns of such an order also indicated the presence of internal migration within the district, in addition to migration from outside.

Given the agroecological factors that create strong contrasts between the Tal, Barind and Diara regions in the district, these migration and settlement patterns also reflected intrinsic differences in the ability of each of these regions to provide livelihood support to large human population because of underlying differences in their land and soil, and their infrastructural and resource limitations. While Kaliachak 1 block, for instance, had a population density three times as high as that of the district, settlement density throughout the Barind was much lower than anywhere else in the Tal or Diara. The growth of population density between 1991-2001 was thus very high in the three Kaliachak blocks and also relatively high in all the Tal blocks but was low in the Barind blocks of Gajol, Bamangola and Habibpur and negative in Old Malda, suggesting substantial resettlement within the district.

**Table : Population & Workforce Change in Malda District  
1991-2001**

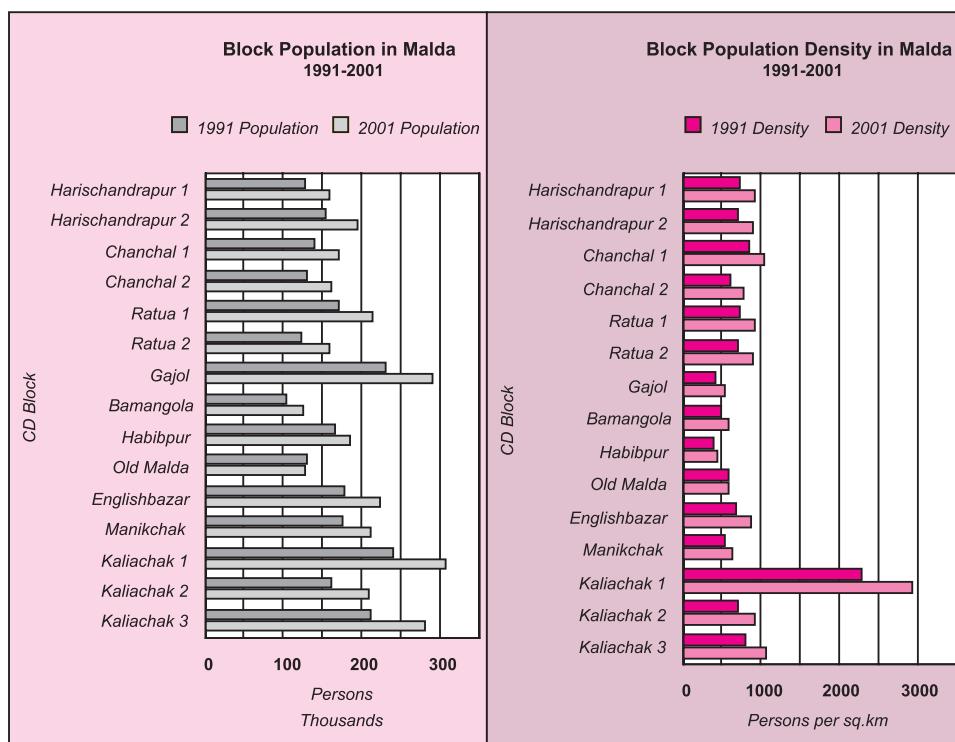
CD Block	Block Area [sq.km]	Block Population 1991	Population Density 1991	Total Workers 1991	Main Workers 1991	Marginal Workers 1991	Non-Workers 1991
Harischandrapur 1	171.41	129829	757	42905	41455	1450	86924
Harischandrapur 2	217.21	157077	723	50903	47582	3321	106174
Chanchal 1	162.14	143288	884	45992	43295	2697	97296
Chanchal 2	205.22	132697	647	45173	42222	2951	87524
Ratua 1	230.53	173655	753	52042	48315	3727	121613
Ratua 2	173.93	125762	723	37627	36300	1327	88135
Gajol	513.65	233139	454	85661	78713	6948	147478
Bamangola	205.91	107579	522	41917	38281	3636	65662
Habibpur	396.07	168397	425	73165	65199	7966	95232
Old Malda	215.66	132999	617	48719	44592	4127	84280
Englishbazar	251.52	180434	717	57426	52518	4908	123008
Manikchak	321.77	177572	552	60946	54947	5999	116626
Kaliachak 1	105.37	243787	2314	88731	71291	17440	155056
Kaliachak 2	222.73	163871	736	61349	54543	6806	102522
Kaliachak 3	260.12	214721	825	81185	74299	6886	133536

CD Block	Block Area [sq.km]	Block Population 2001	Population Density 2001	Total Workers 2001	Main Workers 2001	Marginal Workers 2001	Non-Workers 2001
Harischandrapur 1	171.41	162406	947	52392	41067	11325	110014
Harischandrapur 2	217.21	198039	912	82862	49767	33095	115177
Chanchal 1	162.14	174204	1074	61599	47906	13693	112605
Chanchal 2	205.22	165192	805	64584	43258	21326	100608
Ratua 1	230.53	217356	943	74539	50798	23741	142817
Ratua 2	173.93	160904	925	59240	42654	16586	101664
Gajol	513.65	294715	574	122374	86695	35679	172341
Bamangola	205.91	127252	618	52211	37490	14721	75041
Habibpur	396.07	187650	474	88103	62372	25731	99547
Old Malda	215.66	131255	609	52455	40893	11562	78800
Englishbazar	251.52	226236	899	75968	61630	14338	150268
Manikchak	321.77	214127	665	79791	52411	27380	134336
Kaliachak 1	105.37	310935	2951	180285	125488	54797	130650
Kaliachak 2	222.73	211406	949	91145	65456	25689	120261
Kaliachak 3	260.12	284376	1093	132670	93580	39090	151706

Note: 'Main Workers', by Census definitions, had worked for 180 days or more in the preceding year, while 'Marginal Workers' had secured work for shorter durations

In 2001, more than 65 percent of the district population in Malda comprised non-workers. Rural work participation rates [WPRs] were highest at 58 percent in the densely populated Kaliachak 1 block, showing that more than half of the block population there was involved either in main or marginal work. In the other Kaliachak blocks too, as in Harischandrapur 2 and the Barind, rural work

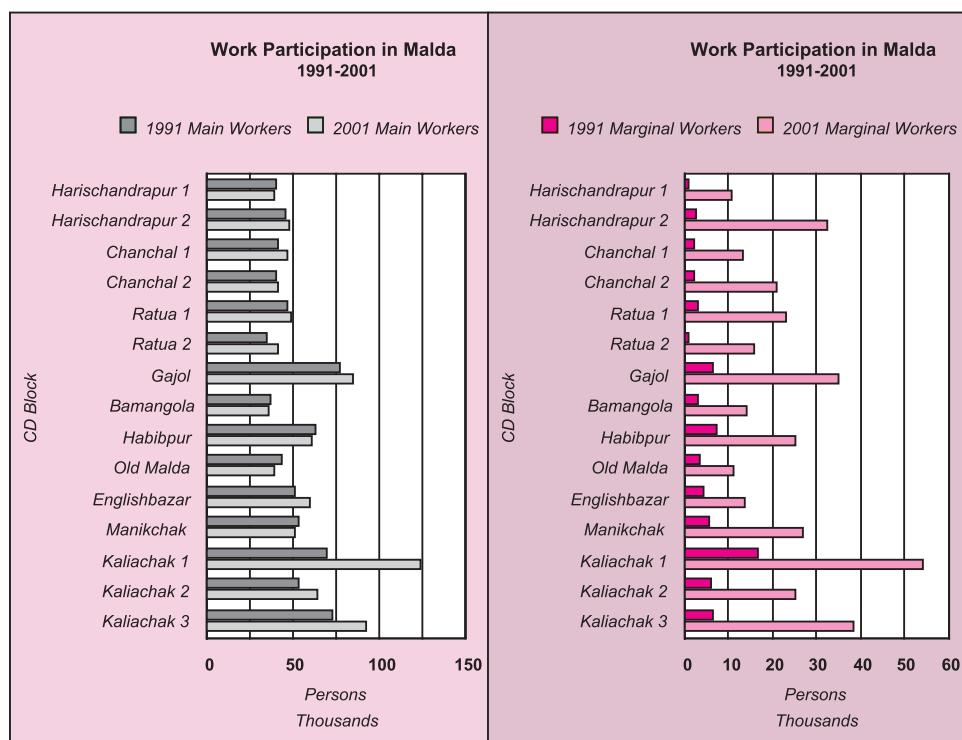
participation uniformly exceeded 40 percent, but was relatively low at between 32-39 percent in Manikchak, Englishbazar and the other Tal blocks. Except in Harischandrapur 1 where the WPR declined in relative terms, rural work participation has thus risen in all CD blocks of the district between 1991 and 2001. The increase has been most marked in Kaliachak 2 and Harischandrapur 2, where the size of the working population has also escalated dramatically. On the other hand, the rise in work participation was relatively moderate through most of the Barind and also in Chanchal 1, Manikchak and Englishbazar blocks. However, because of sharp rise in population density, rural livelihood pressures have remained strong throughout the district. Thus while the marginal workforce has grown rapidly between 1991 and 2001, the opportunities for main work have declined in relative terms, lowering the rates of main work participation in all Malda blocks with the exception of Kaliachak 1.



Although the WPR for all rural workers in Malda rose significantly from 35.3 percent to 41.5 percent between 1991-2001, the proportion of main workers within the rural workforce therefore declined from 32 percent to below 30 percent. The apparent increase in rural work participation thus occurred principally because of escalation in the proportion of marginal workers from 3.3 percent to over 11 percent of the total rural workforce. Since the number of rural workers in the aggregate also rose considerably in absolute terms between 1991-2001, this would indicate that a substantial proportion of new entrants into the district workforce have only been able to find short-term or casual work opportunities. The rise in rural WPR in such circumstances suggests that the entry of new workers results from the intensification of livelihood pressure in the district, rather than because of the expansion of livelihood opportunities overall.

Although the expansion of the workforce has not been sufficient to bring the very poor sections of the district population out of poverty because of low wage-levels

and the marginal character of new work opportunities, the availability of cheap labour has encouraged the expansion of non-farm activities in certain parts of the district which are well located in relation to the existing transportation networks. The region between Kaliachak and Farakka is one such area, where work participation patterns have changed considerably since the construction of the Farakka barrage. As the main lines of road and rail communication now traverse this rural region, the trend towards rural industrialisation and increasing non-farm activity is visibly apparent. However, certain predisposing factors that operate in this area are the low per capita availability of farmland and the consequent shortage of on-farm work opportunities, the existence of a large base of non-agricultural activities in the Shujapur region centred around sericulture, as well as the population displacement brought about by river erosion. In other parts of the district, where such factors do not operate, a viable option that shifts landless workers from agricultural to non-agricultural occupations is still to emerge.



**Table : Sectoral Composition of Rural Workforce in Malda District**  
**1991 & 2001**

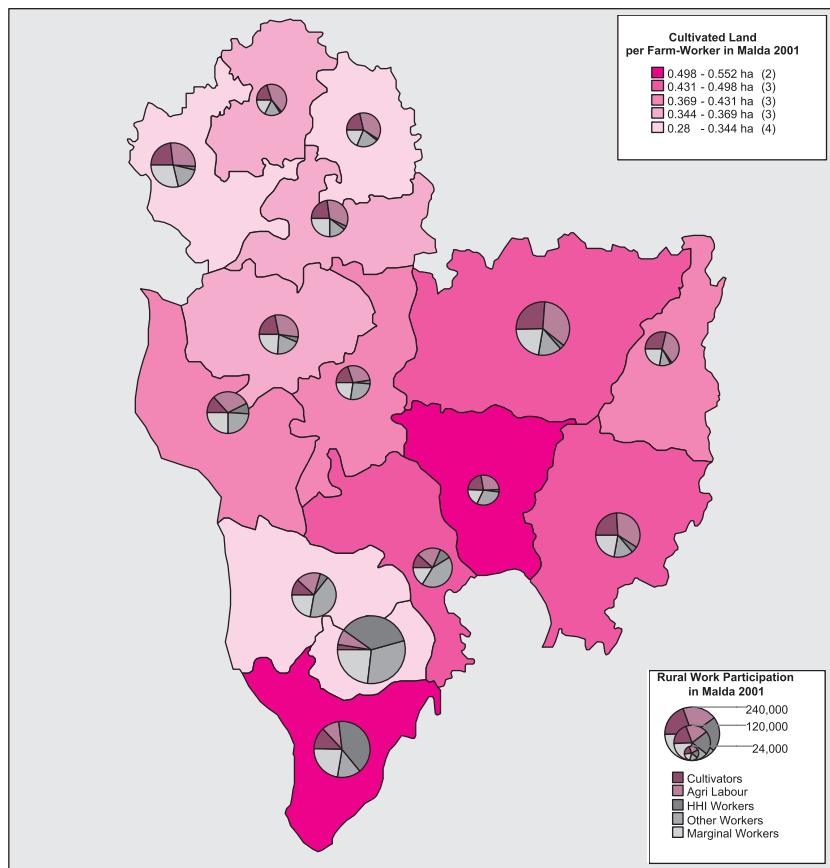
CD Block	Cultivators 1991	Agricultural Labourers 1991	HHI Workers 1991	Other Workers 1991	% Cultivators 1991	% Agricultural Labourers 1991	% HHI Workers 1991	% Other Workers 1991
Harischandrapur 1	15766	19395	1031	5263	38.0	46.8	2.5	12.7
Harischandrapur 2	24011	17372	828	5371	50.5	36.5	1.7	11.3
Chanchal 1	16956	16409	1155	8775	39.2	37.9	2.7	20.3
Chanchal 2	20103	16736	655	4728	47.6	39.6	1.6	11.2
Ratua 1	20957	18978	681	7699	43.4	39.3	1.4	15.9
Ratua 2	13464	16528	426	5882	37.1	45.5	1.2	16.2
Gajol	38337	30475	1677	8224	48.7	38.7	2.1	10.4
Bamangola	17935	15012	691	4643	46.9	39.2	1.8	12.1
Habibpur	27674	24681	2109	10735	42.4	37.9	3.2	16.5
Old Malda	14185	13429	2082	14896	31.8	30.1	4.7	33.4
Englishbazar	10680	19717	4007	18114	20.3	37.5	7.6	34.5
Manikchak	15788	26517	3426	9216	28.7	48.3	6.2	16.8
Kaliachak 1	13015	20746	6194	31336	18.3	29.1	8.7	44.0
Kaliachak 2	15330	18021	3073	18119	28.1	33.0	5.6	33.2
Kaliachak 3	23809	14362	1136	34992	32.0	19.3	1.5	47.1

CD Block	Cultivators 2001	Agricultural Labourers 2001	HHI Workers 2001	Other Workers 2001	% Cultivators 2001	% Agricultural Labourers 2001	% HHI Workers 2001	% Other Workers 2001
Harischandrapur 1	13128	27498	1703	10063	25.1	52.5	3.3	19.2
Harischandrapur 2	26397	32496	3254	20715	31.9	39.2	3.9	25.0
Chanchal 1	15594	28697	1857	15451	25.3	46.6	3.0	25.1
Chanchal 2	19444	29309	3089	12742	30.1	45.4	4.8	19.7
Ratua 1	21261	29880	3951	19447	28.5	40.1	5.3	26.1
Ratua 2	14626	21190	2662	20762	24.7	35.8	4.5	35.0
Gajol	41296	54021	4331	22726	33.7	44.1	3.5	18.6
Bamangola	19492	24322	1059	7338	37.3	46.6	2.0	14.1
Habibpur	27236	40135	5498	15234	30.9	45.6	6.2	17.3
Old Malda	13657	17889	2304	18605	26.0	34.1	4.4	35.5
Englishbazar	10145	17741	8571	39511	13.4	23.4	11.3	52.0
Manikchak	14318	32251	8202	25020	17.9	40.4	10.3	31.4
Kaliachak 1	6526	16860	83230	73669	3.6	9.4	46.2	40.9
Kaliachak 2	13634	21219	7062	49230	15.0	23.3	7.7	54.0
Kaliachak 3	22199	17939	69511	23021	16.7	13.5	52.4	17.4

Source: Census 1991 & 2001

Because of the historically high settlement density of Malda and its overwhelmingly rural character, land availability has been the critical factor in determining the choice of livelihood in the district. Available cultivable land is distributed quite unevenly over the blocks, ranging from the low per capita value of 0.021 ha in Kaliachak 1 block, to 0.181 ha in Habibpur and 0.141 ha in Gajol, both of which are located in the comparatively less settled Barind region. Relative accessibility of cultivable land also determines the degree to which the working population is dependent on agriculture for its livelihood in each Malda block. Consequently, only 13 percent of the working population in Kaliachak 1 is absorbed by agricultural activities, compared to 83.9 percent in Bamangola and 77.9 percent in Habibpur block.

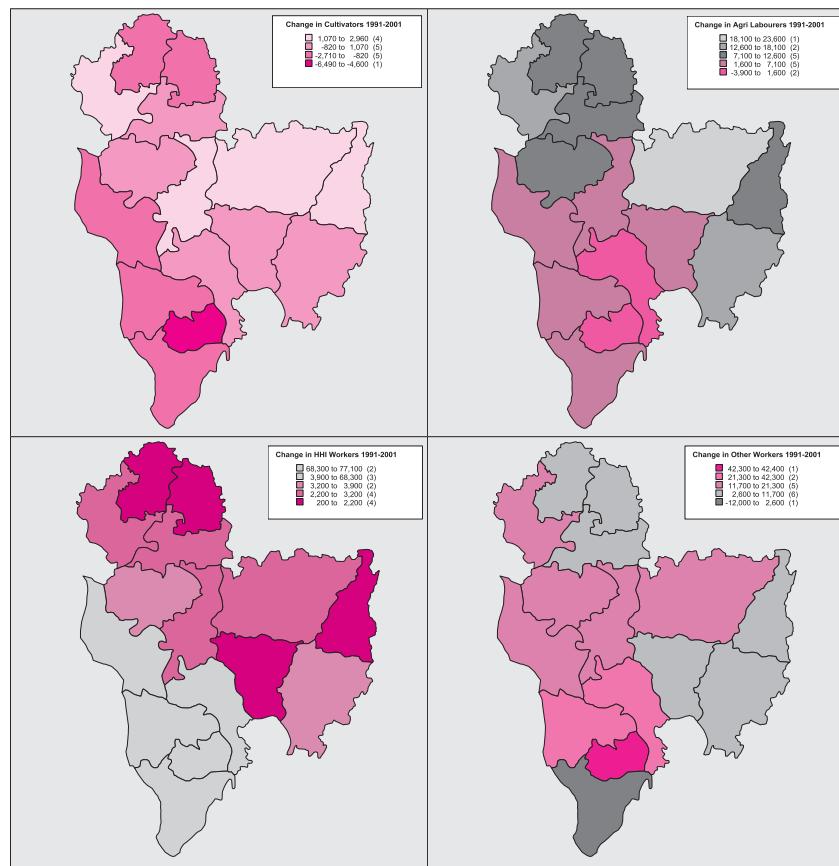


**Table: Land & Agricultural Workforce Relations in Malda District 2001**

CD Block	2001 Net Cultivable Area [NCA] [in ha]	2001 Block Population	2001 Cultivators	2001 Agricultural Labourers	2001 Total Agri Workers [Cultivators & Agri Labour]	2001 Relative Availability of Cultivable land [ha per capita]	2001 Cultivable land per Agricultural Worker	2001 % Agricultural Workers in Working Population
Harischandrapur 1	14167	162406	15766	19395	35161	0.087	0.349	77.5
Harischandrapur 2	16915	198039	24011	17372	41383	0.085	0.287	71.1
Chanchal 1	13142	174204	16956	16409	33365	0.075	0.297	71.9
Chanchal 2	16099	165192	20103	16736	36839	0.097	0.330	75.5
Ratua 1	18137	217356	20957	18978	39935	0.083	0.355	68.6
Ratua 2	13913	160904	13464	16528	29992	0.086	0.388	60.5
Gajol	41524	294715	38337	30475	68812	0.141	0.436	77.9
Bamangola	16511	127252	17935	15012	32947	0.130	0.377	83.9
Habibpur	33920	187650	27674	24681	52355	0.181	0.503	76.5
Old Malda	17584	131255	14185	13429	27614	0.134	0.557	60.1
Englishbazar	18952	226236	10680	19717	30397	0.084	0.680	36.7
Manikchak	25596	214127	15788	26517	42305	0.120	0.550	58.4
Kaliachak 1	6633	310935	13015	20746	33761	0.021	0.284	13.0
Kaliachak 2	10500	211406	15330	18021	33351	0.050	0.301	38.2
Kaliachak 3	16417	284376	23809	14362	38171	0.058	0.409	30.3
Malda Rural	280010	3066053	288010	288378	576388	0.091	0.406	54.4

Source: BAES, GoWB & Census 2001

## Workforce Changes in Malda District 1991-2001



Outside the Barind region, therefore, land scarcity is a major problem in the district. Agricultural lands in the Tal and Diara is mostly irrigated and already intensively cropped and cultivated. The scope of generating additional employment for the landless in the agricultural sector in these regions has become progressively limited since each hectare of farmland in the Tal and Diara blocks already engages between 2-4 agricultural workers on the average. In the Barind where the land situation is more favourable, most farmland is monocropped because of terrain factors, low water tables and the resulting difficulty in providing supplementary irrigation on such lands to generate additional work opportunities within agriculture. Consequently, the district is now poised for a major shift of workers from cultivation to the non-agriculture sector. Evidence that this is already happening in certain parts of Malda district can be found by comparing sectoral workforce figures from consecutive censuses. Between 1991-2001, the rural main workforce increased massively by 4.77 lakh, as people from the younger 1991 age-cohorts moved

into working age. However, over the same decade, the number of cultivators declined from 2.88 lakh in 1991 to 2.79 lakh in 2001, accompanied by an increase in agricultural labourers from 2.88 lakh to 4.11 lakh. Increasing landlessness was thus a major constraint on rural livelihood in the district. However, the proportion of home-based [HHI] main workers rose over the same period from 3.7 percent in 1991 to over 16 percent in 2001. Thus over 1.77 lakh new rural workers found main work opportunities in home-based production and manufacturing activities. Blockwise figures earlier showed that most of this growth in non-farm activities has occurred in the Kaliachak region, accompanying substantial growth in other non-farm activities in Kaliachak 1 and Kaliachak 2 blocks. Local evidence indicates that this has also led to a wave of rural-rural migration to the Kaliachak region, not only from other Diara areas that have been affected by erosion but also from other parts of the district. The livelihood situation in other regions of the district is very likely to reach a similar crisis in the decade to come.

**Table: Changes in Rural Main Workforce in Malda District 1991-2001**

CD Block	Cultivators 2001	Agricultural Labourers 2001	HHI Workers 2001	Other Workers 2001	% Cultivators 2001	% Agricultural Labourers 2001	% HHI Workers 2001	% Other Workers 2001
Main Workers 2001	278953	411447	206284	373534	22.0	32.4	16.2	29.4
Main Workers 1991	288010	288378	29171	187993	36.3	36.3	3.7	23.7
Change 2001-1991	-9057	123069	177113	185541	-14.3	-3.9	12.6	5.7

Source: Census 1991 &amp; 2001

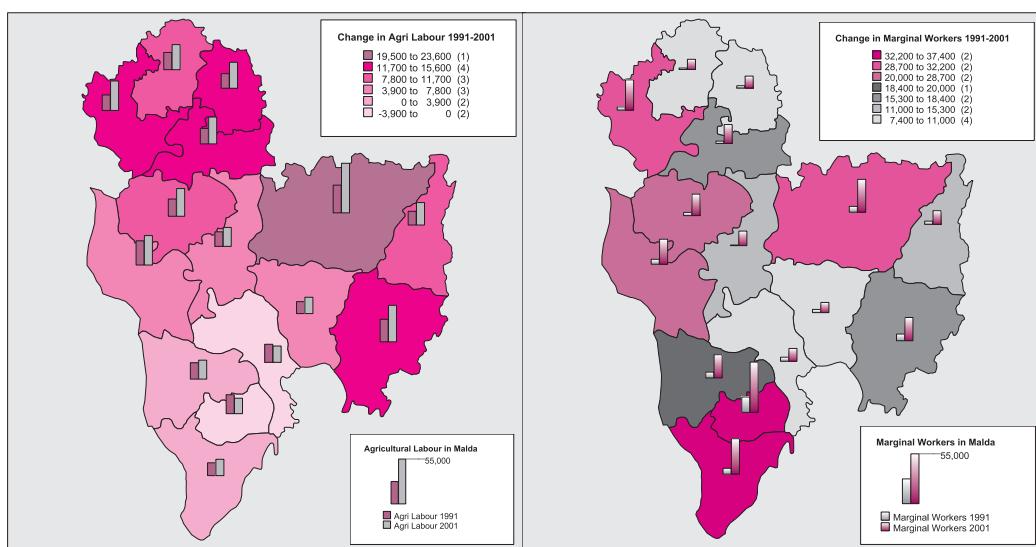
In urbanised areas of the district, comprising Old Malda and Englishbazar municipalities and a string of new census towns in Habibpur block, main work opportunities have expanded overall, proportionately limiting the number of urban marginal workers in 2001 to 2.3 percent of aggregate urban population. However, marginal WPR is still relatively high in the new non-municipal settlements at Aihor and Kendua, which have yet to be accorded the status of statutory

towns. Urban populations in Malda district are thus characterised by greater security in employment, and also by greater and stabler earnings, which permit the urban workers to support a larger number of dependents within their families. However, since the current urbanisation level in the district is still limited to only 7.3 percent of the district population, the livelihood stress in Malda's rural regions has not been relieved by urban growth.

**Table: Rural & Urban Work Participation in Malda District 2001**

Unit	Area sq.km	2001 Population	2001 Population Density	2001 Total Workers	2001 Main Workers	2001 Marginal Workers	2001 Non-Workers	2001 WPR	2001 Main WPR	2001 Marginal WPR
Malda DT	3733.00	3290468	881	1340706	967143	373563	1949762	40.7	29.4	11.4
Malda Rural	3707.63	3049528	823	1264245	896295	367950	1785283	41.5	29.4	12.1
Malda Urban	25.37	240940	9497	76461	70848	5613	164479	31.7	29.4	2.3
Old Malda M	9	62959	6995	21181	19007	2174	41778	33.6	30.2	3.5
Englishbazar M	13.63	161456	11846	49307	46671	2636	112149	30.5	28.9	1.6
Kachupukur CT	0.81	5343	6596	1556	1357	199	3787	29.1	25.4	3.7
Kendua CT	1.2	5773	4811	2271	1904	367	3502	39.3	33.0	6.4
Aihor CT	0.73	5409	7410	2146	1909	237	3263	39.7	35.3	4.4

Source: Census 2001



As revealed pictorially above, major increases in the number of agricultural labourers between 1991-2001 have thus occurred in the northern blocks of the district, comprising Gajol in the Barind, and Harischandrapur 2 and Chanchal 1 & 2 in the Tal region. Habibpur block also shows a relatively large increase in the number of agricultural labourers. In the three Kaliachak blocks and Englishbazar, the change has been of a different order and the rise in number of agricultural labourers has either been moderate or has reversed itself into an absolute decline. However, the number of marginal workers has risen substantially through most of the Tal and Diara and also in Gajol block. Only in the central region of the district has the change in the number of marginal workers been moderate, indicating that more main work opportunities are available here. Hence the regional livelihood situation in Malda has become most critical in the blocks of the Diara, where the possibility of increasing labour absorption in the agricultural sector has reached saturation. The rural employment stress in many parts of the district has been relieved periodically by Government employment schemes such as the Food For Work programme. Anticipation has thus risen among the rural landless and marginal workers about the potential benefits they might derive from the National Rural Employment Guarantee Scheme [NREGS]. However with land already being a critical constraint in Malda, it will be a formidable task to generate the required number of work-days solely within the agricultural sector. New employment initiatives in the infrastructural sector and in rural manufacturing and industry are therefore urgently called for.

Also in respect to the rural employment situation, it may be noted that many more women from poor rural families are now being compelled to enter into wage-employment as a coping strategy to prevent the descent of their families into absolute poverty. Since main work opportunities for them are limited largely to a few specialised home-based activities like *biri* binding, they overwhelmingly outnumber men within the marginal workforce. An unfortunate consequence of this is the pressure that has been brought to bear on daily wage-rates for women in the district. Currently, women receive between Rs.40-50 per day for daylong work performed during the monsoon when agricultural labour demand is at its peak because of the rainfed

cropping of *aman* rice. However, during the dry season, their daily wages slump to between Rs.25-40 per day, depending on whether the region they live in is multicropped or not. Rural males on the other hand have more stable wage-earnings of Rs.50-60 per day during peak season and Rs.40-50 per day in the dry season. In recent years, therefore, a trend has been noticed for wage-workers from Malda district to migrate seasonally to other districts and states where daily wage-earnings are substantially higher. Although this alleviates the financial circumstances of their families to some extent, it brings other problems with it that include greater insecurity and exploitation for migrant workers who have to function without social networks, as well as social stresses and insecurity for the children and families they leave behind at their homes.

## Agricultural & Rural Livelihood Situation

As the district of Malda is an important agricultural region in West Bengal, the economic wellbeing of its population bears a close relation to the current state of agriculture in the district. With considerable variation in physiographic and agroclimatic conditions between the Tal, Diara and Barind regions, crop yields and cropping intensity vary considerably in different parts of Malda. In Malda, the state of regional agriculture depends primarily on the availability of arable land and its irrigation status. Rainfall in the district is moderate and most of the rain drains away immediately as runoff into the numerous rivers, water courses and *bils* that crisscross the terrain. Since this rainwater fails to percolate and recharge local aquifers, the flow in most minor rivers is seasonal, and groundwater-based irrigation is unviable except in limited portions of the Tal and Diara that are free from waterlogging during the monsoon. Since tubewell irrigation cannot be practiced in the Barind because of the low water table, most agricultural land there is monocropped. However, because of the abundance of local drainage channels, canal and channel-based irrigation is practiced in many areas located in the proximity of perennial rivers like the Ganga, Kalindri & Mahananda. Regional variations in the availability of surface and subterranean water resources result in a highly uneven distribution of irrigated land across Malda district. While agricultural lands in Harischandrapur 1 and Kaliachak 3 have an

irrigation intensity exceeding 77 percent, those located in Chanchal 1, Harischandrapur 2 and Englishbazar have an irrigation intensity close to or exceeding 50 percent. In marked contrast, the irrigation intensities of agricultural land 18 percent in Ratua 1, 12 percent in Kaliachak 1, and only 3 percent in Bamangola in the Barind.

Although irrigation intensity generally has direct bearing on cropping intensity, the agricultural situation in several parts of Malda appears to be paradoxical. While Ratua 1, with an irrigation intensity of 18 percent, achieves a cropping intensity of 250 percent, Harischandrapur 1 which has the highest irrigation intensity of 78 percent, achieves a cropping intensity of only 185 percent. Bamangola and Kaliachak 1 which have the lowest irrigation intensities of 3 percent

and 12 percent respectively, realise respective cropping intensities of 150 percent and 190 percent. Such apparent anomalies in local cropping situations are closely related to the undulations of terrain in Malda district, which keep certain regions high above the reach of water while subjecting several others to the threat of periodic inundation. It has consequently been observed that cropping patterns vary considerably across the district. In several well-irrigated regions that are also prone to inundation, long-duration crops like sugarcane are generally grown, which reduce cropping intensity since they occupy the land for the better part of the year. Cropping intensity is visibly higher, on the other hand, in agricultural regions where short-duration kharif and rabi crops are the main crops sown and grown.

**Table: Current Productivity Levels in the Agricultural Sector in Malda District**

CD Block	Aman Rice Yield [kg/ha]	Wheat Yield [kg/ha]	Mustard Yield [kg/ha]	Jute Yield [bales/ha]	Gram Yield [kg/ha]
Harischandrapur 1	1817	2512	1088	2700	625
Harischandrapur 2	1637	2337	1184	2376	692
Chanchal 1	1793	2468	1242	2286	706
Chanchal 2	1573	2379	781	2394	667
Ratua 1	1726	2250	1231	2268	1216
Ratua 2	1821	2532	1007	2466	648
Gajol	2404	2907	1052	1998	706
Bamangola	2475	2221	800	1998	636
Habibpur	2374	2765	1305	1944	800
Old Malda	2401	2961	1086	1980	679
Englishbazar	2410	2869	1077	1944	681
Manikchak	2123	2844	1013	2538	1957
Kaliachak 1	2318	2886	991	2538	647
Kaliachak 2	2575	2942	653	1926	682
Kaliachak 3	2181	2647	949	2394	678

Source: BAES, GoWB

Such agroclimatic and physiographic peculiarities have a profound impact on the productivity of agriculture in different parts of Malda district. For instance, the yields obtained for *aman* rice – the major rainfed kharif crop of the district – are much higher in the Barind blocks (2401-2475 kg/ha) than in the blocks of the Tal region (1573-1821 kg/ha) and the Diara blocks (653-1013 kg/ha). Conversely, for jute which is also sown over the kharif season and grows well in swampy conditions,

much higher yields are obtained in the Tal lowlands than in the upland areas of the Barind. Yield variations are observed even within the same agroecological region, such as in the case of mustard, which as a rabi crop has a low yield of 781kg/ha in Ratua 1 and 800 kg/ha in Bamangola, compared to yields exceeding 1000 kg/ha in the other blocks of the Tal and Barind regions. Given the width of such inter-block variations in the availability of arable land and irrigation and in

cropping intensity and crop yields, the ability of the rural workforce to subsist through agricultural livelihoods within each agroecological regions would depend very strongly on the cropping intensities and the dominant cropping patterns followed within each region. Consequently, a significant degree of association generally exists between blockwise agricultural conditions and the resulting WPRs in each block in Malda district. Only Kaliachak 1 offers a major exception to this, because of the remarkable shift that has occurred in its dominant rural livelihood patterns from agricultural to non-agricultural work.

## Landlessness & Poverty in Malda District

Even though an overwhelmingly large segment of the rural workforce depends on agriculture as its main source of livelihood, the extent of landlessness in Malda has traditionally been high because of the high

densities of human settlement in the district. Since 1977, the sequence of land reforms introduced in West Bengal has sought to institutionalise the tenancy rights of sharecroppers through legal recording of tenancy arrangements, and to provide each landless agricultural labour family with a small plot and a homestead of its own through redistribution of ceiling-surplus vested land as ownership holdings or *pattas*. Recording of *barga* rights has since transformed scores of landless agriculturists who were in informal crop-sharing agreements into legal tenants or *bargadars*. Assignment of vested lands has also transformed the status of many of the landless agriculturists to that of landholders or *pattadars*. However, those who still remain landless have yet to benefit from land reforms. Although land reforms were implemented in Malda district from the time they were launched in other parts of West Bengal, their progress has been uneven across the Malda blocks, as indicated by blockwise variations in the table below.

**Table: Assessment of Land Reforms Position in Malda District**

CD Block	Total Bargadars 2001	Total Pattadars 2001	Landless Agricultural Labourers 2001	Ratio of <i>Bargadars/Pattadars</i> to Agricultural Labourers
Harischandrapur 1	3237	6514	27498	0.35
Harischandrapur 2	1738	6746	32496	0.26
Chanchal 1	4583	4264	28697	0.31
Chanchal 2	3015	4432	29309	0.25
Ratua 1	4685	7341	29880	0.40
Ratua 2	1619	4940	21190	0.31
Gajol	20104	16947	54021	0.69
Bamangola	4967	13034	24322	0.74
Habibpur	12578	22365	40135	0.87
Old Malda	8563	11244	17889	1.11
Englishbazar	1488	3500	17741	0.28
Manikchak	4332	13161	32251	0.54
Kaliachak 1	623	588	16860	0.07
Kaliachak 2	1566	3349	21219	0.23
Kaliachak 3	7901	5869	17939	0.77

Sources: BAES, GoWB & Census 2001

Although there has been substantial progress in terms of the recording of *barga* tenancies in the Barind blocks of Old Malda, Gajol and Habibpur, and in Kaliachak 3 - as borne out by the ratio of *bargadars* to landless agricultural labourers, progress has been indifferent elsewhere in the district and particularly slow in blocks

like Harischandrapur 2, Ratua 2 and Englishbazar which lie in the agricultural heartland of the district. Land redistribution in the form of *patta* lands has primarily occurred in the Barind blocks and Manikchak, and has been less vigorous elsewhere. Consequently, the impact of land reforms has been relatively strong in the

Barind but has been weak throughout most of the Diara. Since the extent of vested land in Malda also varies from block to block, more landless agriculturists have been rehabilitated through land redistribution in Gajol where the extent of vested land is also high. In most blocks of the Tal and also in parts of the Diara, the distribution of *patta* land has never received as much priority, even though all these are more populous than the Barind and also have greater multicropping potential.

However, because of the densely-settled conditions that exist in Malda and the overall paucity of land, the extent of ceiling-surplus land available for redistribution has never been large. From 51,293 ha of lands vested with the Government, the DLLRO office in Malda had until recently redistributed approximately 31,112 ha of land in the form of *pattas* to over 1.53 lakh landless beneficiaries. Approximately 26 percent of these beneficiaries belonged to SC groups and another 19 percent to ST groups. Thus a little more than half of the vested lands were distributed to the rural poor from other community groups, a large number among whom were Muslims. The average size of the *patta* unit was generally small, but varied between an average range of 0.11-0.19 ha within the Tal blocks to 0.26-0.33 ha in the less densely-settled areas of the Barind. Thus, *patta* lands received by the landless in the Tal region generally sufficed only for homestead purposes, unlike the Barind

where some cultivation could also be practiced by the recipients. Although in Kaliachak 1 and Kaliachak 3 blocks, the average size of *patta* land was larger at 0.42-0.46 ha, these barely compensated for land lost to ongoing river erosion, which has reduced many farmers of the region to landlessness.

Official surveys of households living in absolute poverty in Malda district have currently listed approximately 2.19 lakh rural families as living below the poverty line. Approximately 39 percent of all rural households in the district fall into the BPL category, including women-headed households, SC & ST families, as well several from other classes and communities. As revealed below, in most blocks of the Tal and Barind with the exception of Ratua 1, the proportion of rural BPL families exceeds the average for the district. Blocks like Harischandrapur 2 and Chanchal 1 in the Tal region, and tribal-dominated Bamangola and Habbpur in the Barind are among the poorest blocks in Malda district, where approximately half of all rural households live at levels of absolute poverty. Although the position improves relatively in the Diara region, Manikchak still exceeds the district average in terms of the proportion of BPL families. Thus only Kaliachak 1 and Ratua 1, where the proportion of rural BPL families is substantially lower than the district average, can be said to have surmounted the poverty threshold, in a relative sense.

**Table: Rural Poverty Situation in Malda District**

CD Block	Rural Families	SC Families	ST Families	Women-headed [WHF] Families	% Rural Families in SC category	% Rural Families in ST category	% Rural Families in WHF category	Total Operational BPL Families	% Rural Families in BPL category
Harischandrapur 1	30879	4500	290	2061	14.57	0.94	6.67	14701	47.6
Harischandrapur 2	32929	3003	348	922	9.12	1.06	2.80	16459	50.0
Chanchal 1	35186	2336	71	2408	6.64	0.20	6.84	17592	50.0
Chanchal 2	28150	2432	771	1537	8.64	2.74	5.46	12370	43.9
Ratua 1	65305	1783	538	2376	2.73	0.82	3.64	16749	25.6
Ratua 2	28311	2220	286	1371	7.84	1.01	4.84	10883	38.4
Gajol	52817	8548	5481	3363	16.18	10.38	6.37	24583	46.5
Bamangola	24353	6439	4250	1839	26.44	17.45	7.55	12162	49.9
Habibpur	38619	9030	7499	3601	23.38	19.42	9.32	18908	49.0
Old Malda	22747	3502	1924	1650	15.40	8.46	7.25	8928	39.2
Englishbazar	38904	3278	284	2368	8.43	0.73	6.09	15575	40.0
Manikchak	37669	2188	103	2927	5.81	0.27	7.77	12738	33.8
Kaliachak 1	53445	1056	1	3292	1.98	0.00	6.16	10671	20.0
Kaliachak 2	29365	1685	-	2125	5.74	0.00	7.24	10264	35.0
Kaliachak 3	44229	3162	2	1991	7.15	0.00	4.50	15922	36.0

Source: BAES, GoWB

Although no estimates of regional income at sub-district level exist at present for Malda, precluding an analysis of the incidence of income-poverty within the district, sufficient indication of the prevalence of regional poverty at block-level has been obtained from the preceding analysis of labour, livelihoods and landlessness. The high levels of rural poverty that exist in nearly all blocks in Malda district closely reflect the livelihood crisis that has overtaken the agricultural areas because of constant growth of the population and shrinking availability of cultivable land. Thus the eventual solution - as the case of Kaliachak 1 would indicate - would be the proliferation of rural non-farm based livelihood activities across the district, on a scale sufficient to draw large sections of the rural marginal workforce, including women, into main work. Among the many schemes launched in the district for the uplift of BPL sections, skill & capacity building programmes occupy an important place, since these seek to direct the rural poor into alternative livelihoods. However while targeting skills, attempt can also be made to revive the old artisanal activities of the region which had supported a large number of rural households in the past. Several rural residents in the developed agricultural regions of Malda are informally engaged in part-time 'own-account enterprise' [OAE] and trade activities associated with agricultural and horticultural marketing. Small entrepreneurship is therefore an avenue that can be developed further, with sufficient loan support from banks and rural credit institutions.

## Non-Farm Activities in the District

Although agriculture in Malda is well developed with high levels of productivity, cultivators in the district have to contend with the uneven distribution of water resources as well as the combined impact of river erosion and periodic floods, which can cause extensive damage to the standing *aman* crop. Jute and sugarcane are important cash crops with exceptionally high yields in certain parts of the district, but cannot be cultivated simultaneously in other regions because of unfavourable agroclimatic situations. Mangos grown in the orchards of the Diara are the best known among Malda's many horticultural crops, and cultivation has steadily expanded into several adjoining areas. However, the displacing effect that this has had on the cultivation of field crops and on the absorption of

agricultural labour is gradually becoming a major concern, since the vast majority of rural residents in the district are landless and have to depend on wage-employment in the agricultural sector for their livelihood. Sericulture had been a traditional livelihood activity for many rural families of the Diara region and currently contributes about 6 percent of the total volume of silk produced in the country. However the artisanal mode by which silk is produced and the absence of forward linkages to local artisanal weaving industry limits the extent to which sericulture can proliferate in substitution of field agriculture.

Urbanisation in the district has so far been slow and chaotic, rather than being part of a well conceived plan, and its impact has been restricted mainly to the growth of trading activities in the cities of Old Malda and Englishbazar. The absence of urban industrial activity on a vast scale has thus limited the transfer of the working population from rural to urban areas. Since no new labour demands are being generated either in the rural regions of the district, rapid growth of the rural workforce has depressed wage-levels and has also led to greater seasonality of rural work in Malda district. Because of resulting wage differentials, a trend has thus developed for marginal workers to outmigrate seasonally from the district during the agricultural slack season, when work is hard to come by in the rural areas. Gradually, as migrant networks have been extended, migration has expanded with them, and unskilled workers from rural Malda today can be found seasonally working in labour-gangs, in places as far afield as metropolitan Kolkata, Mumbai and Delhi.

Despite the recent growth of such trends, migration from the district does not offer a humane solution as far as landless rural families are concerned, because of the uncertainties and exploitation that migrant workers are routinely subject to, and because of the disruptive impact that migration has on the education, health and nutritional priorities of children in rural families where women have to function as heads of their households. Consequently, a solution to the current problems of rural joblessness and poverty has to be found within the peripheries of the district of Malda, by focusing on the development of rural work opportunities outside the domain of agriculture. This focus ultimately comes to bear on the small manufacturing units [SMUs], trade and service establishments, and traditional rural

manufacturing activities that collectively constitute the non-farm sector of the district economy.

In 1999, there were 6402 smallscale industrial units in Malda which provided direct employment to 36,720 workers, each unit thus employing 5.7 workers on an average. The growth of this segment has since accelerated with another 1204 units being established between 1999-2003, raising their total number to 7696 units and their collective employment to 42,575 workers. The product range manufactured at these industrial units comprised items required for use within the district, including wood, wood cork, paper, plastic items, non-metallic mineral products, fabricated metal products, etc. In addition to these manufacturing establishments, there were several service units catering to the repair and maintenance of motor vehicles and extending service support to auxiliary transport activities in the district. Apart from these modern industrial and service facilities, several artisanal clusters were engaged in the production of cane & bamboo craft, decorative pottery and woodwork, handloom weaving, and tailoring etc.

Although the industrial base of Malda district is poorly developed at present, the non-farm sector thus shows a concentration of SMUs that cater solely to local demand. Because of the locational advantages of the district, trade and transport have also made significant advances over the years, in the process generating appreciable growth in the service sector. Since the predominant production activity in Malda district is agriculture, rural non-farm activities are based mostly on the processing of readily available food and horticultural crops and on the traditional skill-based activities of artisan communities within the district population. Thus the agro-based industries in Malda largely process cereals, pulses and oilseeds and produce bakery products. Seasonal activities like mango processing also generate agro-based employment outside the farm sector in the district. The largest employment generated by agro-based activities is in sericulture. However, because of the artisanal character of sericultural activity where the entire rural family

contributes in some part to the output, precise estimates of employment within sericulture are difficult to arrive at. Although in the absence of largescale processing and manufacturing units, downstream linkages to ancillary units have not been strong in the district, the recent growth of trade and service activities bears close associations with the expansion of non-farm activity in the rural regions.

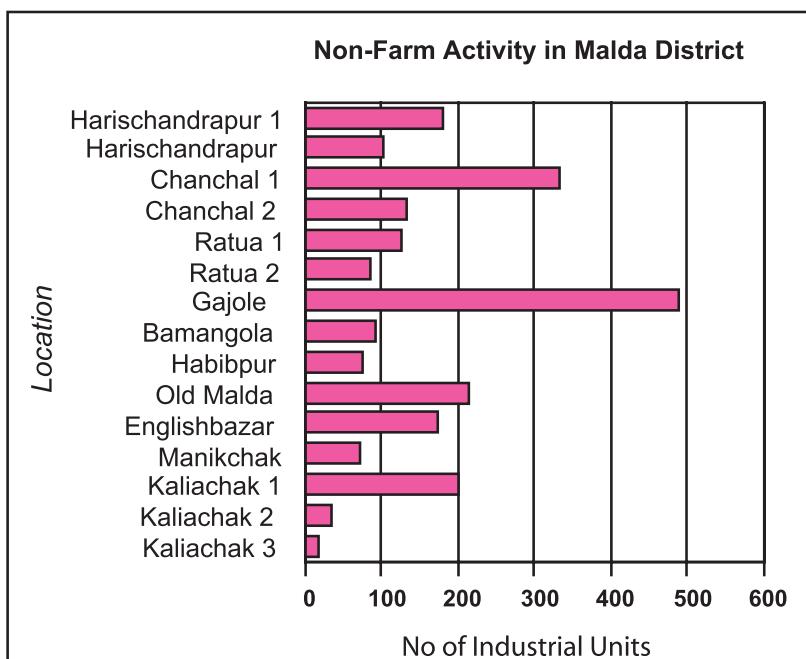
## **Patterns of Diversification of Rural Activities**

Several interesting locational features relating to industrial and service activity in the different development regions of Malda have been revealed by the recent DPS survey of rural non-farm sector units in the district, details of which are summarised in the table below. Food processing industries, including, wheat grinding, paddy-husking, oil-mills, and bakeries, etc., now occupy a fairly important position among registered rural non-farm units, being found commonly in almost every Malda block. Service activities like cycle & auto repair, carpentry, etc. also feature widely among the registered rural non-farm units in the Malda blocks. Other agro-based processing and manufacturing activities are located close to the hinterlands from which they derive inputs. Jute manufacturing units, for instance, is mostly concentrated in Harischandrapur 1 & 2 blocks where a lot of jute is grown, and silk reeling and yarn manufacturing units are concentrated primarily in the important sericultural areas of Kaliachak 1 & 2 blocks. Other manufacturing units which produce products required for common use in many regions within the district have been established at multiple locations. Thus the manufacture of bricks and tiles is an important non-farm activity that has gained simultaneous presence in Chanchal 2, Ratua 2, Old Malda & Kaliachak 3 blocks. Coke-briquetting, on the other hand, which must be located near a railhead to be cost-effective, is now a significant activity in Harischandrapur 2 block.

**Table: Diversification of Rural Non-Farm Activities in Malda District**

CD Block	Total Regd/Unregd Units	% of District	Food Proc	Carp-try	Cycle Repair	Auto Repair	Bricks & Tiles	Saw-mill	Milk Proc.	Jute Mfr	Steel Fabrn	Silk	Bidi Mfr	Coke Mfr	Foot-wear	Print Press	Indust. activity
Harisch'pur 1	185	7.7	*	*	*	*				*				*	*		5
Harisch'pur 2	107	4.5	*	*	*	*				*				*	*		7
Chanchal 1	337	14.1	*	*	*	*	*										5
Chanchal 2	137	5.7	*	*	*	*	*										5
Ratua 1	129	5.4	*	*	*	*	*			*							5
Ratua 2	89	3.7	*	*	*	*	*			*							6
Gajol	494	20.6	*	*			*			*							5
Bamangola	96	4.0	*	*	*	*	*		*	*							6
Habibpur	81	3.4	*	*	*	*	*										4
Old Malda	220	9.2	*	*	*	*	*		*								5
Englishbazar	178	7.4	*	*	*	*	*			*							6
Manikchak	75	3.1	*	*	*	*	*										4
Kaliachak 1	206	8.6	*	*	*	*	*										6
Kaliachak 2	39	1.6	*	*	*	*	*										5
Kaliachak 3	23	1.0	*	*	*	*	*										6
<b>Malda DT</b>	<b>2396</b>		<b>15</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	

Source: DPS Survey, Malda



## Employment Generation in Non-Farm Activities

Cottage and household-based non-farm activities in Malda district presently include traditional artisanal crafts like cobbletry, black smithy, gold smithy & carpentry, oil-pressing, pottery, weaving & tile-making, cane & bamboo craft, etc., all of which fulfil local needs and are therefore a common constituent of rural

non-farm activity in most Malda blocks. Other industrial or household-based non-farm activities of a more specialised nature are clustered around particular regions and blocks. Masonry, for instance, is a predominant artisanal activity in Harischandrapur 1 and Manikchak blocks, while the production and processing of *makhana* seeds by household units is concentrated in Harischandrapur 2 block where large areas are prone to monsoon waterlogging. Rice milling generally takes

place at mini rice-mills that are concentrated mainly in Old Malda block, while jute carpet-manufacturing is found solely in the Gajol area. Handloom weaving activity, on the other hand, is fairly diversified and is thus encountered in Chanchal 2, Ratua 1 & 2, Old Malda, Manikchak and Kaliachak 1 & 2 blocks, while a few nylon ropemaking units have come up around Habibpur. Household-based *biri* binding activities are largely scattered around Chanchal 2 and Ratua 1 & 2 blocks, where 5-6 largescale *biri* manufacturing units are also located.

The tables below provide some indication of the volume of employment generated by these non-farm activities and small manufacturing units. Although the number of workers engaged in these activities is not very large at present, the number of units and workers is likely to increase substantially as further diversification and proliferation of non-farm activities takes place across the district. The point of significance is that these activities are village-based and represent the seeds of a rural industrialisation process that is sorely needed to tackle the rural livelihood crisis in Malda district.

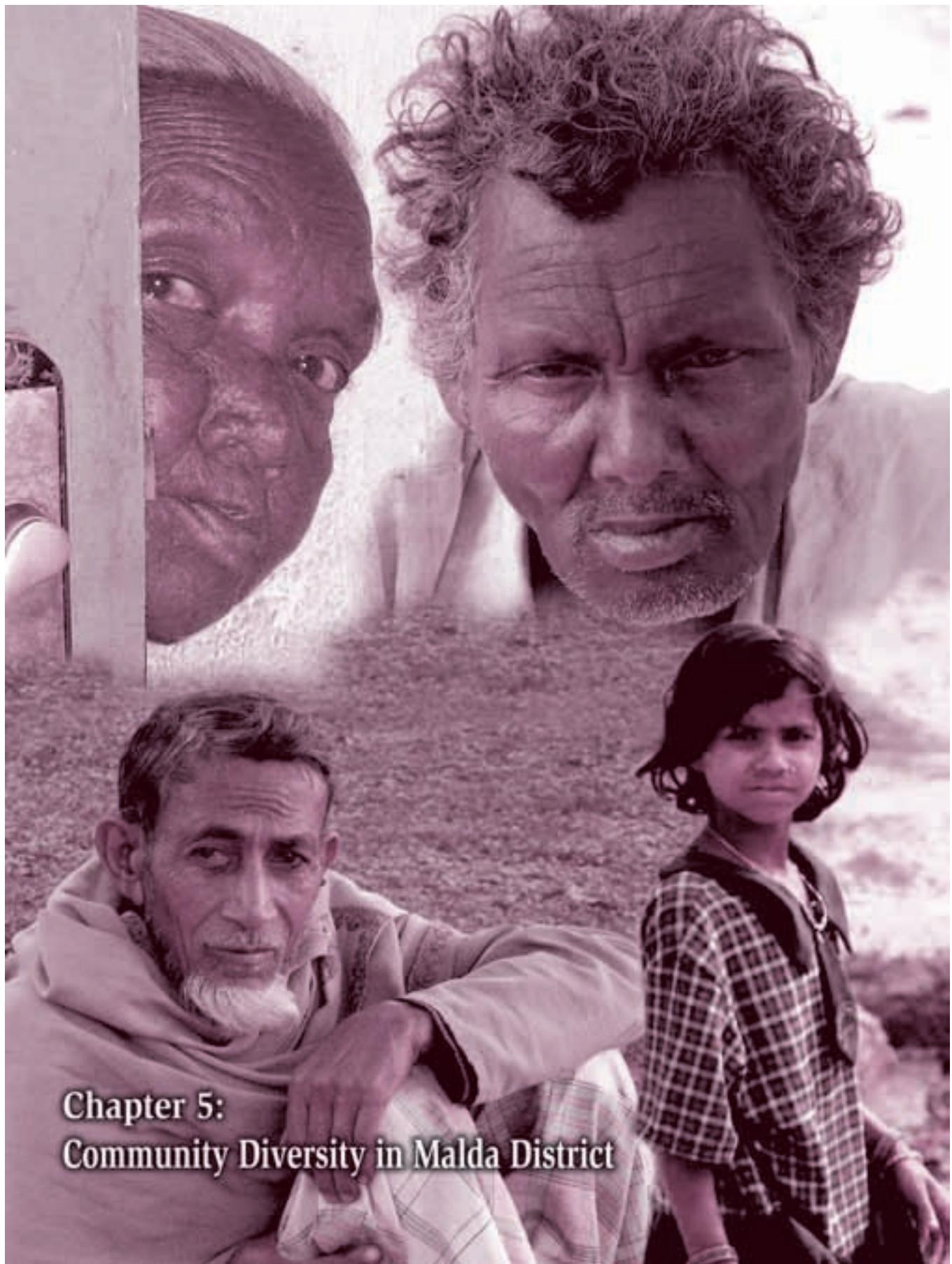
**Table: Employment Generation by Traditional Crafts & Trades in Malda District**

CD Block	Families engaged	Concentration of Traditional Trades
Harischandrapur 1	325	Masonry, Cobblery, Black smithy, Gold smithy, Pottery
Harischandrapur 2	258	<i>Makhana</i> processing, Cobblery, Pottery, Jute, Cane & Bamboo Crafts, Black smithy
Chanchal 1	715	Cobblery, Pottery, Masonry, Black smithy, Gold smithy, Carpentry
Chanchal 2	2045	<i>Bidi</i> binding, Cobblery, Weaving, Pottery
Ratua 1	655	<i>Bidi</i> binding, Bamboo Crafts, Cobblery, Weaving, Pottery, Black smithy, Gold smithy, Bengal <i>Bhatta</i>
Ratua 2	1011	Weaving, <i>Bidi</i> binding, Cobblery, Weaving, Oil-pressing, Black smithy, Dry Fish Processing
Gajol	1835	Brick, Pottery, Cane & Bamboo Crafts, Jute Carpentry, Hand Paddy-processing
Bamangola	301	Pottery, Cane & Bamboo Crafts, Hand Paddy-processing
Habibpur	375	Idol-making, Pottery, Cane & Bamboo Crafts, Nylon Ropemaking, Hand Paddy-processing
Old Malda	425	Weaving, Fodder, Rice Milling, Tailoring, Pottery, Bakery, Bee-keeping, Cobblery, Tile-making
Englishbazar	229	Weaving, Rice Milling, Tailoring, Pottery, Bakery, Cobblery, Tile-making, Mango Products, Black smithy, Gold smithy, Carpentry
Manikchak	1359	Mason, Cobbler, Weaving, Pottery
Kaliachak 1	965	Pottery, Weaving, Black smithy, Carpentry, Brick-making, <i>Bidi</i> binding
Kaliachak 2	345	Pottery, Weaving, Carpentry, Brick-making, <i>Bidi</i> binding
Kaliachak 3	2083	<i>Bidi</i> making, Weaving, Black smithy, Carpentry, Brick-making, Bengal <i>Bhatta</i>
Malda DT	12926	

**Table: Employment Generation by Non-Farm Sector Industrial Units in Malda District**

Workers employed per unit	% to Total Unit in the District	Industrial activities
Upto 2	19.00	<i>Barkosh</i> , candle manufacture, <i>chanachur</i> , cobblery and shoe manufacture, cotton bags, conch-shell crafts, cycle repair, bottling of distilled water for auto batteries, <i>dokra</i> craft, nylon bags, laundry, mat weaving, manufacture of <i>papad</i> and <i>dal bari</i> , photo printing and photography, photo framing and book binding, radio, taperecorder and TV repair, reprocessing of mobil oil, weaving of sarees, <i>gamechhas</i> , dhotis and mosquito net, STD/ PCO, <i>tal pankha</i> manufacture, woolen knitwear, xerox photocopying
3-5	55.00	Agricultural implements, agarbatti, bamboo work, black smithy, book and register binding, bread and biscuit bakeries, detergent manufacture, production of <i>chira</i> and noodles, idol making, computer assembly, data-entry and computer-aided design, weaving of <i>lungis</i> and napkins, hosiery, handloom weaving, oil-pressing, dal mills and flour mills, plastic products, spices, wooden furniture, wooden wheel and boat fabrication, manufacture of ice candy and ice slabs.
6-8	10.00	Auto repair service, ballpen and refill manufacture, wrought iron gate and grill manufacture, steel furniture, honey processing, polythene film, cake and pipe, sawmill units, earthenware tiles and <i>matkas</i> , wooden packing- box manufacture





## Chapter 5: Community Diversity in Malda District



## Community Diversity

## Chapter 5

### Origin of Cultural Heterogeneity in Malda

With its long and eventful history involving the rise and fall of several alternate kingdoms and regional monarchs, the district of Malda shows regional colours and complexities that carry the stamp of its past. The principal way in which the cultural imprints of these historical events are still seen today is in the heterogeneity that marks the cultural and ethnic composition of the district population. Although the past has been overlaid by more contemporary events, its cultural relics are still found in the community diversity that characterises Malda, which in turn impacts upon the subregional patterns of human development realised within the district.

Among the cultural features that give the human population of Malda a distinctive demographic mosaic are

- (a) the juxtaposition of two dominant religious groups comprising the Hindus and Muslims that retain strong cultural differences within their patterns of social and socioeconomic behaviour
- (b) the constellation of several forward and backward castes and community groups, which also give a highly heterogeneous character to the Hindu sections within the district population, and
- (c) the presence of several distinctive tribal groups in the district, who reside within their own cultural domains, speaking distinct languages and dialects and practicing customary ways of economic and community-life.

Consequent to these differences, the communities that make up the composite population of the district show vastly differing human development responses, even when their economic circumstances and the developmental opportunities offered to them are broadly similar. For instance, where the state provision of educational or healthcare opportunities seeks to equalise the access available to the subregions and subpopulations within the district, the extent to which this access is actually availed by each cultural or community group depends on its ability to leverage the

subsequent flow of development benefits. Certain population segments are innately privileged within this exercise by cultural liberties that allow them to participate to the fullest extent in developing their capabilities and availing opportunities. Yet at the same time, certain cultural groups – women or backward social communities or conservative religious groups, among them – show an inhibited response because of cultural or community bindings that impede their exercise of personal liberties. It will therefore be the object of this chapter to explore the regional community diversity present within Malda district, in relation to the many social and cultural differentials that show up in the human development responses in different parts of the district. Because of the weight of the cultural past upon this ancient region, development performance and development opportunities acquire a considerable degree of complexity, which is perhaps not seen in many other parts of West Bengal.

As just stated, the principal cultural distinctions seen presently within Malda district are between the Hindus and Muslims and between the socially backward tribes and caste communities vis-à-vis more socially privileged and forward groups. However, even these three broad community groups are not culturally homogeneous within themselves. Several subgroups among the Muslims who live in Malda, such as the Shershabadiya for instance, have a unique cultural and linguistic identity that differs from that of their other co-religionists. The Scheduled Caste communities of the district are similarly subdivided into the occupational Namasudra SCs and the distinctive Paliya/Rajbangshi SCs whose distinctness from the former caste-groups shows pronounced ethnocultural features. For the tribal groups that reside in the district, the generic appellation of 'Scheduled Tribe' is almost a misnomer, because of the vast cultural differences that innately exist between each linguistically and culturally distinct tribal group of Santals, Malpaharis, Oraons, Mahalis, etc.. In addition to this multitude of formal communities and cultural subgroups, Malda is also home to several linguistically distinctive groups who have migrated into the district over the course of its

cultural past, including traditionally favoured groups such as the Maithils or Brahmins, and also several semi-aboriginal communities that resettled within the district in the course of their gradual assimilation into a more dominant cultural or religious identity. Even after several generations, many of these migrant groups retain strong cultural associations with their original modes of life that marks them apart from the other communities residing within the district. Because many of these subgroups practise activities and ways of life that keep them in socioeconomic isolation, their responses to human development initiatives also differ considerably from those of other segments within the district population. Ultimately, the development patterns of the Malda subregions where they are settled in large numbers also differ from those of other subregions, thus creating a highly diversified human development response. Thus the comparative analysis of community-based patterns of human development made in this chapter also brings out the need for such regional development problems to be addressed multiculturally so that no resident community within the district remains excluded in future from the general

process of human development experienced by the people of the district.

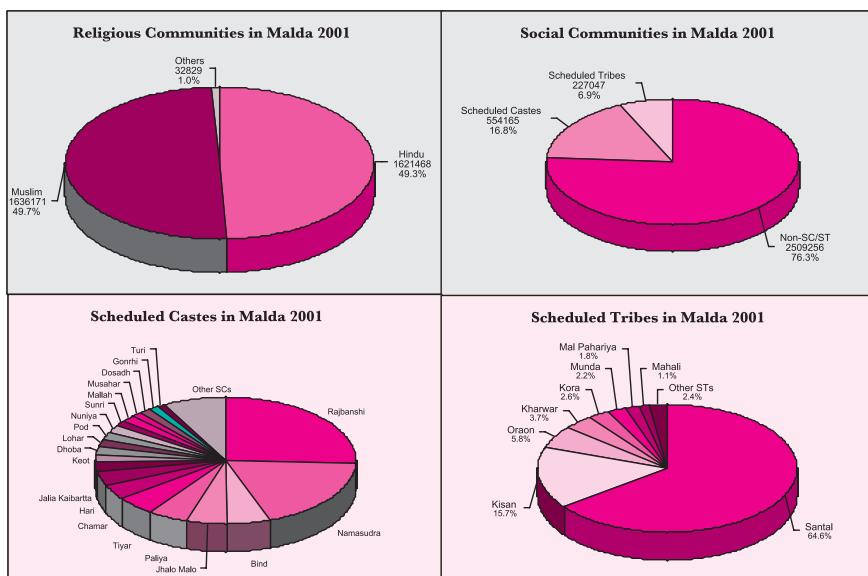
## Cultural Features in the Malda Population

The nature of cultural divisions within the district population of Malda may initially be explored in terms of the following table of information drawn from the 2001 Census and the accompanying charts. The religious composition of the population in the district is seen to be almost equally balanced between the Hindus and Muslims as revealed by the table, each having a population of over 16 lakh. The presence of other religious communities is insignificant for all practical purposes, even though high urbanisation rates among the minor populations of Sikhs, Buddhists and Jains would indicate that these are groups that have migrated to Malda for business or service purposes. However, the urban population in the district is overwhelmingly Hindu, and urbanisation among the Muslim population is still practically negligible.

**Table: Cultural Demography of Malda District**  
**Census 2001**

Religious Groups	Population	% of District Population	Males	Females	FMR Ratio	% Urban Residents
Total	3290468	100	1689406	1601062	948	7.32
Hindu	1621468	49.28	834023	787445	944	13.17
Muslim	1636171	49.72	839102	797069	950	1.62
Christian	8388	0.255	4087	4301	1052	5.08
Sikh	283	0.009	207	76	367	24.03
Buddhist	164	0.005	86	78	907	41.46
Jain	293	0.009	163	130	798	45.39
Others	23701	0.720	11738	11963	1019	0.69

SC Groups	Population	% of SC Population	Males	Females	FMR Ratio	% Urban Residents
SC Population	554165	100	284726	269439	946	6.35
Rajbangshi	144158	26.01	73921	70237	950	3.76
Namasudra	101444	18.31	52284	49160	940	4.26
Bind	30303	5.47	15651	14652	936	2.20
Jhalo Malo	28165	5.08	14457	13708	948	2.14
Paliya	27636	4.99	14111	13525	958	5.27
Tiyar	26669	4.81	13701	12968	947	17.13
Chamar	21450	3.87	10966	10484	956	9.78
Hari	19357	3.49	9845	9512	966	2.64
Jalia Kaibartta	13411	2.42	6919	6492	938	8.33
Keot	12529	2.26	6467	6062	937	1.98
Dhoba	10951	1.98	5668	5283	932	9.13
Lohar	10587	1.91	5461	5126	939	16.90
Pod	10211	1.84	5229	4982	953	14.25
Nuniya	10170	1.84	5266	4904	931	15.54
Sunri	8564	1.55	4488	4076	908	9.79
Mallah	8096	1.46	4237	3859	911	6.40
Musahar	7617	1.37	3853	3764	977	0.54
Dosadh	7608	1.37	3971	3637	916	14.80
Gonrhi	6187	1.12	3195	2992	936	3.81
Turi	5463	0.99	2787	2676	960	4.81
Other SCs	43589	7.87	22249	21340	959	
ST Groups	Population	% of ST Population	Males	Females	FMR Ratio	% Urban Residents
ST Population	227047	100	113537	113510	1000	1.03
Santal	146723	64.62	72710	74013	1018	0.76
Kisan	35747	15.74	18381	17366	945	0.11
Oraon	13125	5.78	6607	6518	987	1.43
Kharwar	8404	3.70	4334	4070	939	0.81
Kora	5998	2.64	2973	3025	1017	0.40
Munda	4901	2.16	2443	2458	1006	1.57
Mal Paharia	4199	1.85	2058	2141	1040	6.53
Mahali	2611	1.15	1297	1314	1013	1.57
Other STs	5339	2.35	2734	2605	953	-



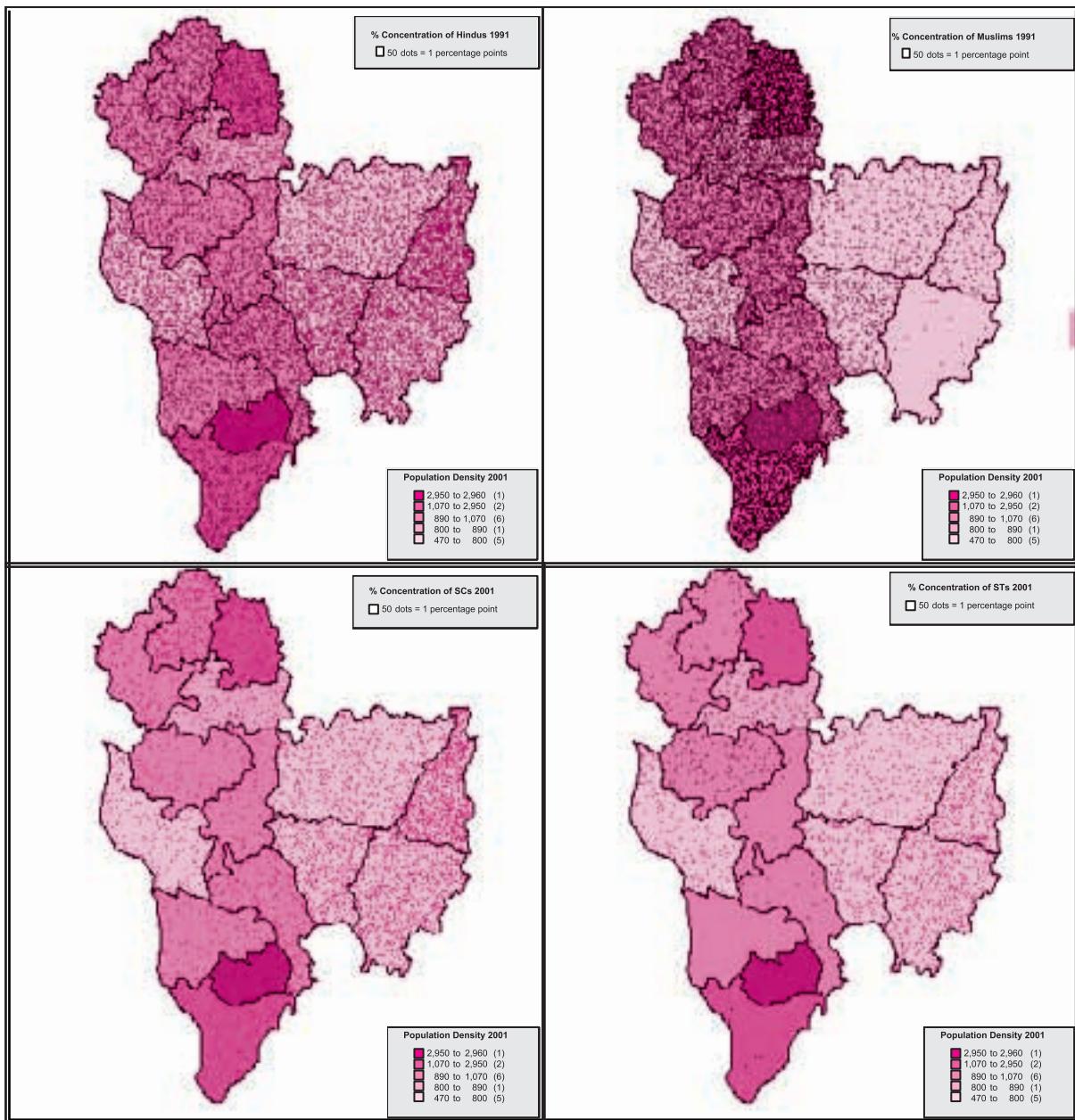
The SC and ST groups in Malda account for approximately 16.8 percent and 6.9 percent of the total district population respectively. The ethnic Rajbangshi SCs and Santal STs are the dominant groups within this, each having a population of over 1.4 lakh. The composite group of ethnic Paliya/Rajbangshi/SCs thus collectively account for nearly a third of the total SC population, with the Namsudra communities being the other dominant SC group. The presence of other miscellaneous SC communities is more marginal in individual terms, they collectively account for a combined population of over 2.8 lakh. Among the ST groups, the Kisan and Oraon STs are present in Malda in relatively large communities, followed by the Kharwar and Kora. The Munda and Mal Paharia and Mahali are relatively smaller groups, of whom the latter two originate from the Rajmahal region across the Ganga. However, the collective group of other STs includes a very large collection of tribal communities that are present in Malda in small communities of a few hundred individuals, or even less. Similarly, the numerically smaller SC communities in the district are distributed over a very large number of individual SC groups, details of which can be examined in the appendix tables.

Notably, as in other parts of the country, gender presence varies significantly across these cultural communities. As indicated by the corresponding female-male ratios [FMRs] of the number of females per 1000 males for each community group, the tribal communities generally have an excess population of girls and women. The positions of the Kisan, Oraon and Kharwar among them are exceptional in this sense, since they show a female deficit. In pronounced contrast, most SC groups show low to very low FMRs, which in most cases are even lower than the general FMR of 948 for the district. The lowest FMRs in the district are seen among the Mallah and Dosadh SC groups, both of which are numerically small SC communities. The Dosadh, like the Tiyar, Lohar, Pod and Nuniya SC groups show high rates of urbanisation, indicating that low female presence among them partially reflects the relative recent urban migration of males from regions outside the district. It

may be noted here that besides male migration, low FMRs also reflect the gender biases that cause lower survival probabilities among girl children. In this respect, the Muslim communities which have low urbanisation rates are placed more favourably than their Hindu counterparts. FMR among the Hindus in Malda is lower than the general FMR for the district, but exceeds the latter in case of the Muslims.

The SC groups in Malda district are relatively more urbanised than either the Muslims or the STs. Collective urbanisation rates among the ST communities barely touch 1 percent, but are 6.35 percent for the SC communities as a whole. However, the Mal Paharia STs are much more urbanised than their other ST counterparts. Numerically strong cultural groups, such as the Muslims, the Rajbangshis and Namasudras and the Santals are relatively less urbanised. In a district with large contrasts between the urban and rural segments of the population, such cultural differences become highly significant.

Interestingly, the non-SC/ST/non-Muslim segment of the district population, which is largely composed of upper-caste Hindus, amounts to 8.73 lakh. The urban segment within this amounts to 1.78 lakh accounting for nearly 74 percent of the total urban population in Malda district. Thus urbanisation rates among non-Muslim upper-caste Hindus in Malda are well over 20 percent. Partially, this large presence of upper-caste Hindus in the urban population of Malda reflects the inter-city, inter-district and inter-state migration of males, as reflected in the low FMR of 931 within this population segment. Nevertheless, such figures reveal also that while the rural hinterland of Malda is populated overwhelmingly by a mixed population of Muslims, STs and Hindu SCs, the few urban centres in the district cater almost exclusively to the Hindu upper-castes. Because of the glaring rural-urban disparities that exist within the district in terms of development amenities and achievements, the poor state of human development in the district reflects this rural-urban divide with adverse implications for economically depressed and backward community groups like the Muslims, tribal communities and Hindu lower-castes.



## Block-wise Distribution of Community Groups

The general patterns for the distribution of population across the district indicate that human settlement is more dense in the western segments of Malda, comprising the blocks of Harischandrapur 1 & 2, Chanchal 1, Ratua 1 & 2, Englishbazar and Kaliachak 1, 2 & 3. Compared to these western blocks, human settlement is relatively sparser in Manikchak and Chanchal 1, and in the Barind blocks of Gajol, Old Malda, Bamangola and Habibpur. The most densely settled blocks in the district are Kaliachak 1 and Chanchal 1, where population

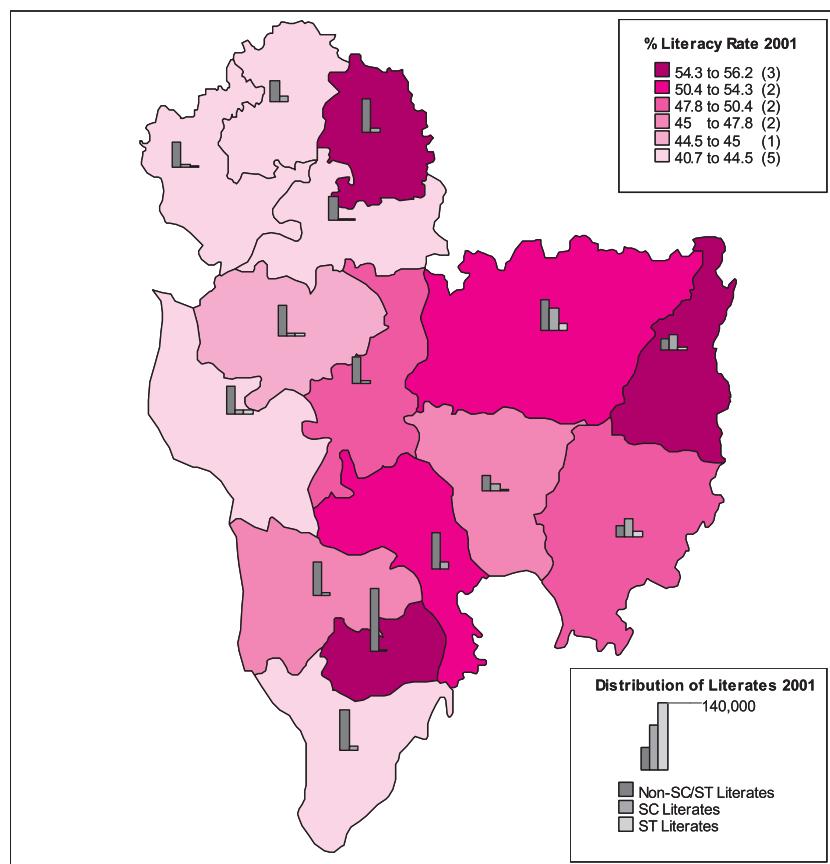
density lies in the range of 1000 to nearly 3000 persons per sq.km. In contrast, in the Barind where settlement pressure is still low, population density is in the range of 47-620 persons per sq.km. Overall, the average settlement density in the four Barind blocks amounts to a little less than half of the combined settlement density in the Tal and Diara regions of the district.

The following set of maps show that the pattern of Hindu settlement amounting to just under half the district population is relatively well dispersed across Malda in purely numerical terms with no regions of major concentration or dispersal. However, since the Muslim population of Malda is largely concentrated

along the western fringes of the district covering the Tal and Diara, and is relatively limited in the Barind, the four Barind blocks and Manikchak to some extent emerge as Hindu-dominated areas. The proportion of Hindus to the block population is highest in the case of Habibpur, where Muslim settlement is virtually negligible. Conversely, the densely settled blocks of Kaliachak 1 & 3 and Chanchal 1 have sizeable Muslim components within their population, giving them a strongly Muslim character. No block in the district is entirely Muslim-dominated, either in terms of having an extremely high Muslim concentration or negligible presence of Hindus. However, most blocks of the Tal and the Diara, with the exception of Englishbazar and Manikchak have contiguous population of the two communities where Muslims outnumber Hindus in the ratio 3:2.

The patterns of SC and ST settlement across the district, however, indicate greater unevenness in the dispersal of their population. Bamangola and Harischandrapur 1 have the highest settlement densities of SCs in the district, even though in purely

numerical terms, the largest concentration of SCs exists in Gajol where their aggregate number amounts to nearly 1 lakh, followed closely by Habibpur. SC groups are also relatively well dispersed across the other Tal and Barind blocks, with the exception of Chanchal 2 and Ratua 1 & 2. In the Diara, the SC presence is negligible in Kaliachak 1 block and is relatively low in Kaliachak 2. Among the STs, large tribal communities are found in Gajol and Habibpur where their aggregate population exceeds 0.55 lakh. In Habibpur where there is relatively less settlement of other non-tribal community groups, these ST communities account for nearly 30 percent of the block population. In Gajol and Bamangola, the share of ST groups in the block population is also relatively high at just under 20 percent of the block population. However, outside the Barind region, ST communities are only significantly present in Manikchak block and their presence in the other blocks of the district is close to negligible. The lowest concentrations of tribal communities occur in Chanchal 1 and the three Kaliachak blocks, where their presence within the block population is well below 0.5 percent of the block population.



In sum therefore, while the Tal and Diara regions of Malda district have composite populations of mixed religious and cultural origins, the Barind is dominated by the Hindus with sizeable SC and ST communities. Since nearly all STs in Malda list themselves as Hindu despite following their own traditional tribal religions, the Barind blocks show a relatively Hindu profile. However, upper-caste Hindu communities are principally concentrated in the Kaliachak blocks of the Diara and across most of the Tal, and are scarcely present in the Barind.

Given the differences that show up in the levels of development between the Barind, Tal and Diara in Malda district, regional development disparities clearly have a bearing on the resident community groups. Poorer rates of human development in the Barind reflect the backwardness of the resident tribal and SC communities, while in the greater part of the Tal and Diara, regional backwardness coincides with social backwardness among the Muslims. The resulting community dimensions of human development in the district can be briefly analysed in relation to levels of literacy across the district.

The block-level map above compares the relative patterns of literacy across the district to the absolute distribution of SC, ST and non-SC/ST literates. With preceding insights from the patterns of community dispersal across Malda district, it appears that the relatively high percentage levels of literacy in the Barind blocks reflect relatively even literacy achievement by the SC, ST and non-SC/ST communities in relation to their proportionate presence within the block populations. Nevertheless SC literacy greatly surpasses ST literacy even in blocks like Gajol and Bamangola where the presence of tribal communities in the block population is relatively high. In Habibpur, where ST presence is the highest and the presence of non-SC/ST groups is low, the literacy deficit compared to Bamangola or Gajol reflects poor achievement of literacy by the tribal communities. Old Malda shows even lower literacy achievement in overall terms, because of poor literacy achievement among the Muslims who are more present in this block than in the other Barind blocks. Chanchal 1 in the Tal and Kaliachak 1 in the Diara also record high percentage levels of literacy. However, literacy achievement by the SC communities present here is relatively low and is

not commensurate with their presence in the block population. In most other Tal and Diara blocks where SC and tribal communities are present, literacy achievement among them is close to negligible reflecting their social and educational handicaps in many parts of the district.

### Scheduled Tribes in Malda District

Neither academic scholars nor development workers have arrived at a unified definition of what constitutes a tribe and what indices define the tribal mode of life. In administrative literature, a tribe has been described as a cluster of families bearing a common name, speaking a common dialect and occupying a common territory. Ralph Linton extends this territorial definition to incorporate the feeling of community within such groups, arising from similarities in culture, frequency of contact and a certain commonality of interests. In the work of D.N. Majumder, a more rigorous definition of the tribal context attributes it to

- [i] existing endogamy within the territorial group
- [ii] lack of specialisation in its economic functions, which distinguish a *tribe* apart from a *caste*
- [iii] recognition of its social distance from other tribes and caste-groups
- [iv] lack of social opprobrium in this feeling of distance
- [v] adherence to its own social traditions, beliefs and customs
- [vi] resistance to alien traditions, beliefs and customs
- [vii] consciousness about its own homogeneity and territoriality

I.M Lewis identifies the compactness within tribal communities in terms of their restricted spatial and temporal space, which restricts their social communication and consequently also their legal and political relations, circumscribing their world-view. The ability of such communities to survive in social isolation rests in turn on their internal self-sufficiency, which is otherwise a missing feature in modern society. All these definitions would also characterise the tribal communities in Malda district as they existed in their original state. However, their situation has not been static, because of the operation of the tribe-caste continuum, cultural diffusionism across tribal borders,

and most importantly, because of the democratisation of the Indian polity. All these have also served to bring the Malda ST communities out of cultural exclusionism into the broad sociopolitical and economic mainstreams of India.

In substance, the tribal communities in Malda belong to the proto-Australoid group and still speak a variety of tribal languages that fall within the Munda subgroup of the Austro-Asiatic or the Austric language-family, representing an old tribal continuum that stretched across the Gangetic plains of India ascending eventually into the peninsular hills. Because of juxtaposition and association, these ST communities are now bilingual or mulilingual, speaking Bengali as well as the local district dialects with considerable fluency. Nevertheless, in a system of state education that emphasises formal learning in Bengali, and consequently places them at an educational detriment, persistent demands have risen within tribal communities for primary education in their own language, spearheaded by the demand for recognition of the Alchiki script by the Santali community which is numerically superior in Malda district. However, this does not reflect any resentment towards the Bengali language within the tribal communities *per se*, but rather their rising aspirations and their recognition that the learning achievements of tribal children are presently curtailed by limitations in their formal knowledge and comprehension of Bengali and consequently slower learning rates. Initiation of a state programme for primary education based on the use of tribal languages is by no means easy, since the tribal communities spread across the state and across Malda district use a variety of dissimilar vernaculars. Particular difficulties would therefore arise in the preparation of basic primers and the use of pedagogical methods, which have to be uniform across the state. However a beginning could be made by the recruitment of tribal teachers and by the introduction of the study of tribal languages at the primary level in tribal-dominated areas, where the non-tribal population is also exposed to the use of tribal vernaculars in its daily interactions, because of contiguity to the ST communities. Despite dialectal differences, the dominant tribal communities in Malda belong principally to the Mundari language-family. This would in fact ease the process of introducing the selective study of tribal languages into the education system in the tribal blocks.

## The Tribal Economy in Malda District

Although several tribes in India still pursue a variety of customary livelihood activities like hunting-gathering, shifting or *jhum* cultivation, and subsistence agriculture combined with home-based artisanry and daily wage-labour, the tribal segments of the district population presently residing in the district of Malda are predominantly sedentary cultivators, with some 80 percent of the tribal population engaged in agricultural activities in some form. The practice of hunting as a traditional subsistence activity has now practically vanished with the gradual disappearance of forest, although the gathering of minor forest produce like honey is still pursued. Livestock husbandry in the form of the rearing of cattle and pigs, as well as of poultry chickens and ducks are pursued as supplemental economic activities. Livelihood-based activity in fact plays a more important role among tribal communities than it does among rural non-tribal groups, because of two interrelated factors, namely

- the marginal character of agricultural lands, sparse settlement patterns and remoteness of locations occupied by tribal communities, which make market-based agriculture a limited livelihood alternative
- the greater proximity of animal herds to pasture, forage and fodder because of surviving patches of wilderness and village commons

However, as far as agriculture is concerned, the methods of cultivation adopted by tribal farmers in Malda are still primitive and unscientific, with little or no use of advanced implements and agricultural machinery. Partly because of their ignorance about contemporary methods of crop husbandry involving the use of chemical fertilisers, hybrid seeds and pesticides, the yield per hectare obtained on tribal croplands is considerably lower than that obtained in non-tribal areas. On the other hand, an important feature that restricts agricultural yields in the Barind, where most of the district's 2.27 lakh ST population resides, is the lower soil fertility caused by the clayey soil-profile and the limited presence within it of organic carbon. Lack of access to irrigation water is another serious limitation which limits the productivity of tribal lands to a single crop a year. In such circumstances, the tribal community

remains essentially poor despite lower levels of landlessness among them. Of serious concern is the grip that rural moneylenders still have over these tribal areas, where they extend short-term credit for agricultural and consumption purposes to the ST communities, at compound rates of interest touching 10 percent per month.

The lack of alternative institutional credit including loan advances by credit cooperatives is thus a glaring lacuna in the ST-dominated areas of the district. While the reasons for this are multidimensional, one of the principal factors is the disinclination of banking and cooperative officials to do business in these tribal areas which are more remotely situated, and where agricultural operations are less profitable in economic terms. Another important set of factors that limit the flow of institutional credit into the tribal regions of Malda is the formal paper-work required before disbursement of a loan, and the prudential requirements of proper and sufficient collateral security. Most members of the ST communities are either still illiterate or semi-literate and are therefore unable to cope with the complicated paper procedures of formal credit institutions, and moreover do not possess the kinds of asset-holdings that can be offered as collateral against institutional loans. The moneylenders, in marked contrast, are willing to extend credit to ST borrowers on personal bonds, without accompanying paper-work and often without formal security, and are thus able to perpetuate their usurious role among the ST communities. A third factor that perpetuates usury and impedes the outflow of institutional credit in the ST-dominated regions of Malda district is the fact that formal institutional loans are extended solely to meet productive purposes, whereas poor ST borrowers often also need credit support to cover short-term consumption needs and other social purposes. In such respects, the ST situation in Malda is probably similar to present tribal situations in many other parts of the country. However, the problem urgently needs to be addressed for comprehensive economic upliftment of the ST communities who reside in the district. Again, rural credit operations by institutional credit agencies are physically restricted by their fixed hours of work, while the credit operations of rural moneylenders are accompanied by substantial flexibility. For new institutional headway to be made, particularly by cooperative credit agencies like the Large-Sized

Agricultural Multi-purpose Cooperative Societies [LAMPS], their working hours need to be adjusted more flexibly so that their financial services are also available to rural borrowers at unconventional times. A humane attitude involving personal flexibility and much less officialdom also needs to be inculcated among agency officials if institutional credit is to be effectively extended to the ST communities. Because of cultural conditioning within the ST community, wilful default by ST borrowers is virtually nil. While so far this has mainly worked towards the benefit of the moneylenders and their usury, it needs to be recognised that such qualities amount to a form of social collateral that can securitise institutional loans in a rather unconventional way.

Another very serious issue that is increasingly affecting the tribal residents of the ST-dominated regions of Malda in a highly adverse manner is the problem of growing land alienation. Under the system locally known as *khai-khalasi*, ST borrowers often mortgage their agricultural lands to more solvent cultivators who are usually upper-caste non-tribals. The going mortgage rate is Rs. 5000/- per bigha of agricultural land, which is a fraction of the true value of the land. An unofficial estimate of the extent of *khai-khalasi* recently states that upto 60 percent of the tribal lands in Malda district have already been mortgaged. Under the prevailing mortgage system, the crop yielded by the mortgaged land accrues to the persons to whom the land has been mortgaged, till the time when the accumulated value of the crops yielded by the mortgaged land is deemed to have equalled the sum that had initially been borrowed by the original owner of the land. In essence, the *khai-khalasi* system effectively alienates the mortgaged land from the original landowner without the accompanying loss of title, which would in any case be illegal under the present laws governing the tenure on tribal lands. Another local land-mortgage system encountered in many areas of Malda is the system of *bandhaki*. In this variant, the ST-borrower has to repay the principal amount borrowed in cash to secure the release of his land, which is an exceedingly rare occurrence because of tribal poverty and the consequential inability of the borrower to accumulate a reserve of cash that would enable him to liberate his holding. Under *bandhaki* too, the crop yielded by the mortgaged land accrues to the lender until the time the ST-borrower is able to secure the release of his land. However, unlike the *khai-khalasi*

system, the value of this crop is deemed to be the interest on the original amount borrowed, rather than a partial repayment of the principal. Thus under *bandhaki* - unlike *khai-khalasi* - the mortgage principal can only be repaid in cash. In many instances of *bandhaki*, the non-ST lenders who have received the land in mortgage have been able to rewrite the land *patta* or title deceitfully in their own names by claiming long-term possession, with the connivance of a few unscrupulous revenue officials, and therefore the alienation of tribal land under *bandhaki* agreements has subsequently acquired a *de jure* form. Among the ST communities of Malda district, such informal mortgage systems have generated a vicious cycle of poverty, indebtedness, land alienation and further tribal impoverishment.

## Current Tribal Development Programmes

Through special arrangements and programmes under the Integrated Tribal Development Project [ITDP], the West Bengal Tribal Development Cooperative Corporation [WBTDCC] has been striving to break this vicious cycle in the tribal blocks of Malda district. The WBTDCC has two branch offices and four regional offices across West Bengal, of which the WBTDCC branch office located at Malda also oversees adjoining tribal areas in Uttar Dinajpur and Dakshin Dinajpur districts. The ITDP programme operates across the four ST-dominated blocks of Gajol, Bamangola, Habibpur and Old Malda. The WBTDCC branch office at Malda now has 24 LAMPS cooperatives under its jurisdiction, with one more presently in the process of registration. These LAMPS units operate in all four ITDP blocks, and have been able to enlist between 30-35 percent of the ST families in these blocks as LAMPS members.

The ITDP thrust in Malda district through LAMPS currently focuses on the following programmes:

### **(a) Introduction of scientific methods of agriculture**

Besides seeking to increase the availability and use of irrigation, improved seeds, pesticides and chemical fertilisers by ST farmers in Malda district, the use of vermicompost manures is also encouraged. Similarly, the use of organic pesticides and vermicompost by-

products as an alternative to chemical pesticides is also being promoted. Certified seeds are also distributed to the ST farmers, with advice and support from the LAMPS units, the National Cooperative Union of India [NCUI] and the Integrated Cooperative Development Project [ICDP]. The Barind area where all four ITDP blocks are situated is water-scarce, as a consequence of which it has traditionally been a monocropped area that mainly grows *aman* paddy as its principal crop. Low-cost rainwater-harvesting is being actively encouraged as an alternative to groundwater which is scarce in the Barind region, under a NABARD scheme that provides maximum credit support of Rs.15,000 on 50 percent loan : 50 percent subsidy terms. Rainwater-harvesting technology, which has been used with considerable success in the arid drought-prone areas of Rajasthan, is deemed to have tremendous potential for application in the Barind region, as means for transforming monocropped tribal lands into multicropped lands. For this technology to be deployed successfully, inter-departmental coordination is also necessary.

### **(b) Popularisation of cooperative loans**

The popularisation of agricultural loans disbursed through the cooperatives is another important activity area for the WBTDCC, Malda branch office. The LAMPS unit at Habibpur, currently rated among the best units in the district, issued aggregate agricultural loans of Rs.10 lakh in 2004-05, rising subsequently to Rs.15 lakh in 2005-06. Proper policy initiatives to enhance the economic strength of the LAMPS units are a vital step for the economic resurgence of tribal areas.

### **(c) Empowerment of women**

The economic empowerment of ST women is another important focus area for the LAMPS programme of the WBTDCC. The principal vehicle for this policy objective are the loans disbursed to ST women under the Adivasi Mahila Sashakti Yojana [AMSY] of the Central Government, involving a maximum loan amount of Rs.10,000 accompanied by a maximum subsidy amount of Rs.10,000, for supporting productive economic activities. However, reports indicate that in many cases, the loan amount have been diverted by their recipients to non-productive purposes such as the release of mortgaged *khai-khalasi* land or for meeting the costs of healthcare. While such practices should not be encouraged, the fact remains that fund diversions of

this nature have also ultimately resulted in the socioeconomic upliftment of the backward and vulnerable ST sections within the Malda population.

#### **(d) Vermicomposting**

Tribal women in the ITDP blocks are also being encouraged to take up vermicomposting, to expand the manuring resources available to ST farmers in the district. Under this initiative, the Self-Help Groups [SHGs] comprising ST women are being tagged to the Malda District Central Cooperative Bank [MDCCB], which extends financial and technical support for the vermicomposting project, which envisages regular earnings of between Rs.2000-2500 per month per SHG, provided the group possesses two cows that provide the organic dung-yield that makes the project economically viable.

#### **(e) Mushroom cultivation**

Mushroom cultivation is also being encouraged among tribal women in Malda by the WBTDCC, with active support from the cooperative development programme of ICDP. The mushroom cultivation initiative is organised on the principle of private-public partnership [PPP], wherein the private entrepreneurial partner provides mushroom spawn, basic infrastructure and technical knowhow and also guarantees the buy-back of the final product. Under this new initiative, pilot projects are being established at Rahutara and Tapsahar in Habibpur block. However, final export-marketing of the mushroom products remains a current challenge, for which administrative support is necessary, so that local production can be linked to major consumption centres like Kolkata. Effort also has to be made to expand the size of domestic mushroom markets by popularising the local consumption of mushrooms as a quality food. Provided these challenges can be adequately met, the mushroom cultivation initiative has the potential to become a commercial success because of the economics involved. WBTDCC estimates of the economics of mushroom production show that with a basic production enclosure measuring 100 sq.ft and a current sale value within Malda district of Rs.30 per kg against a production cost of Rs.12 per kg, the production of 100 kg over a 45-day mushroom production cycle would yield an aggregate profit of Rs.1800 over each cycle, enabling the tribal growers to supplement their family income significantly. In order

to market their mushroom products across the district, the WBTDCC has currently tagged each tribal grower-group with the Malda Mango Cooperative Society Ltd. [MALCOS]

#### **(f) Animal resource development**

Livestock-husbandry has been a traditional livelihood activity among the ST communities. In order to maximise the potential of such activities, the WBTDCC LAMPS units at Habibpur and Gajol are currently providing practical training in animal resource development to the tribal communities. However, for this new initiative to rise to its full potential, close coordination between the Departments of Animal Resource Development, Agriculture, Cooperation, Food Processing and Minor Irrigation is necessary. In order to achieve this, the *Krishi Sech O Samabaya Sthayee Samiti* of the Malda Zilla Parishad must be empowered to play an enabling role across the entire district. The proposal for establishing a District Dairy Cooperative in Malda also has immense potential to engage tribal women in productive livestock-based economic activities either in their individual capacities or as members of SHGs.

### **Community Leadership within Tribal Communities**

Most tribal communities across India have a unique sociopolitical organisation provided by their internal community institutions that differ significantly from the mainstream. For tribal development initiatives to be effective, the study of these community institutions becomes necessary, so that they can be coopted into the delivery systems for tribal development schemes. Because of the collectivity of these institutions, immense faith is reposed on them by the tribal societies, within which individual opinions and individualistic modes of conduct count for very little against adherence to customary tribal norms of belief, acceptance and conduct. Since social opinions carry far more weight in tribal communities, the sociopolitical hierarchies endorsed by tribal institutions count above all, while establishing communication with external societies. For any developmental programme to become acceptable to common tribal individuals, its prior acceptance by the tribal hierarchy becomes essential. In this, the tribal chiefs and elders play an

intermediary role, determining what measures and programmes will ultimately be beneficial for the tribe and will conform to the spiritual and cultural traditions of the tribal community. Any developmental programme that ignores the tribal institutions is viewed with mistrust as an imposition from outside, and is consequently a failure.

The Santal community, numerically the most dominant ST group in Malda district also has the most elaborate community institutions involving a hierarchy of several layers. These are detailed in the chart below.

### **Functional Hierarchy in Santal Community Institutions**

#### ***Santal Community Organisation***

##### **MAJHI HARAM (Village Headman)**

- is responsible for the entire village community
- directs all community events e.g. observance of tribal festivals, marriages, birth and death rituals

##### **JOG MAJHI (Deputy Headman)**

- presides over the organisation of rituals
- monitors morality issues within the village community.

##### **PARANIK (Secretary)**

- ensures implementation of Majhi Haram's directives
- officiates as Headman, during absences, death or resignation of the incumbent

##### **JOG PARANIK (Deputy Secretary).**

GODDET (Assistant to Majhi Haram)

- apprises community about the Majhi Haram's directives
- plays a social role during ritual and festive occasions

NAEKE (Village Priest)

KUDAM-NAEKE (Assistant to Naeke)

Most other major tribal communities in Malda district have similar community institutions, although their functional hierarchy ranges from simple to complex. None of these is however as elaborate as that of the Santals. While the Koras and Mundas for instance, split the essential community functions over three institutional layers, the more primitive Mahali have the single institution of a village headman. In most tribal communities, the positions of headman and village priest are hereditary. However, discharge of their

functions is a community responsibility that does not carry any connotations of power. Regardless of how elaborate or simple the tribal institutions are, the community opinions that they represent are given weight over personal wishes and opinions. Because the various forms of punishment for social disobedience involve the ejection of the offender from the social protection of the tribe, the hierarchical social order within the tribal group is seldom defied. For the same reason, any new social dispensation has to be endorsed through social acceptance within the tribal group, before it can be availed by any individual within the group.

### **Community Institutions in Other Malda Tribes**

#### ***Kora Community Organisation***

MAHATO (Village Headman)

PRAMANIK (Secretary)

GADHAT (Assistant to Mahato and Pramanik)

#### ***Munda Community Organisation***

MOROL (Village Headman)

BARIKHDAR (Secretary)

PAHAN (Village Priest)

#### ***Oraon Community Organisation***

MOROL (Village Headman)

PAHAN (Village Priest)

#### ***Mahali Community Organisation***

MOROL (Village Headman)

#### ***Sauria Paharia Community Organisation***

MAJHI (Village Headman)

DAKUA (Assistant to Majhi)

Despite the apparent strength and resilience within these community institutions, the ST communities in Malda district have been affected to some extent by the evolution of a modern demographic polity within the country. Besides the traditional community leaders who guide the fortunes of the tribe through the existing community institutions, a new crop of tribal leaders had emerged within the ST communities, comprising the elected MLAs from the reserved Legislative Assembly constituencies of Habibpur and Gajol, the Chairpersons of the Habibpur, Bamangola and Old Malda Panchayat Samitis, who in March 2006 were all tribal, and the tribal Panchayat Pradhans of two Gram Panchayats [GPs] from Habibpur block, one GP from Old Malda

block and five GPs from Gajol block. Between 7-8 percent of the GP and Panchayat Samiti members in Malda district are also of tribal origin. Nevertheless, despite this growing presence, these tribal political leaders merely from the lower rungs of the leadership of mainstream political parties in the district, while the apex leadership is primarily of non-tribal origin. Thus the political empowerment generated by the panchayat system in the district has so far had only a limited trickle-down effect, and the hands that wield the real powers still belong primarily to the forward social groups which have so far been reluctant to pass the baton of power into tribal hands. The true purpose of social justice and tribal empowerment will only be realised when this happens in the ultimate.

## **Tribal Education in Malda**

Despite their relatively large presence within the district, and their relative dominance in the four ITDP blocks of Old Malda, Habibpur, Bamangola and Gajol, development situations among the ST communities in Malda are still inferior to those of the other communities. This is reflected in deficiencies in educational institutions in the tribal-dominated blocks and GPs, in the high student-to-school and student-teacher ratios in tribal areas, the large numbers of first-generation school-goers and also in very high school dropout rates.

The Department of Backward Classes Welfare [DBCW] now offers several incentives to ST and SC families in the district, in order to induce them to educate their children, which can be listed under the following groups.

### **Chart: Current State-supported Schemes for ST & SC Education in Malda**

#### **Scholarship Schemes**

- Merit scholarships for girl students' Classes 5-10
- Merit scholarships for all students' Classes 11-12
- Upgradation of Merit scholarships
- Post-Matriculation scholarships

#### **Residential Support Schemes**

- Maintenance of Ashram Hostels
- Reimbursement of Hostel charges for other ST & SC students

#### **General Fee Support**

Book grants and Fee grants to ST

Reimbursement of Maintenance charges

Reimbursement of Other Compulsory charges

However, monthly reports on these DBCW educational schemes generally indicate the non-fulfilment of scheme targets. For instance, the February report for 2006 reveals that against the financial outlay of Rs.15.1 lakh for 450 ST & SC students who were to be awarded by Post-Matriculation scholarships in 2005-06, only 129 students had been awarded scholarships till February 2006. The spending on the scheme was thus a paltry Rs.3.11 lakh. Similarly, 354 SC & ST students had been provided financial support amounting to Rs.12.1 lakh for meeting hostel charges till February 2006, against the financial outlay of Rs.18.16 lakh for supporting 483 students during 2005-06. Since both schemes have been designed to support ST & SC education in areas where the secondary and post-secondary educational infrastructure is absent, and students have to study away from home, the nature of the problems encountered in improving education rates within the tribal communities of Malda become easily evident.

In general, ICDS schemes have been popular in the tribal areas of Malda, where the ICDS are often referred to as *khicchudi* schools. Recent field studies indicate that the willingness of tribal communities to send their wards to these centres is not based on their educational aspirations, since respondents think that the centres teach very little and the quality of teaching there is poor. The tribal parents send their children to the centres for free meals, which, however, are inadequate in quantity and cannot fully satisfy their nutritional needs.

## **Tribal Healthcare and Sanitation**

For the ST communities in Malda district, modern and the traditional healthcare still go hand in hand. The *Ojhas* or traditional tribal healers are popular even among educated tribals who believe that the herbal healing systems they use have curative value. It must simultaneously be noted that the traditional tribal healing systems are deeply rooted within the culture and customs of the tribal communities, and thus

receive social acceptance among them. Nevertheless, modern healthcare systems in Malda do attract tribals, but persisting weaknesses within the available health infrastructure in the ST-dominated regions create a major bottleneck. Many of the resident communities thus fall back on their traditional healing systems, because of the inadequate outreach of modern healthcare systems to the remote tribal villages.

For this problem to be tackled in the tribal blocks, the primary healthcare system there has to be strengthened considerably, with an increased number of PHCs, adequate medicine supply and regular availability of doctors. Besides improving treatment and recovery rates in cases where traditional healing systems fail, augmented access to modern healthcare will also progressively reduce the dependence of tribal communities on their Ojhas and medicine-men, and shall over time transform their health-related customs and perceptions. In spite of prevailing weaknesses in state healthcare coverage, it may be noted that state-sponsored immunisation programmes such as the pulse polio programme encounter no social resistance within the tribal communities, and in fact receive a spontaneous response. Incomplete coverage of tribal children by these programmes therefore occurs for other reasons, including the economic hardships that force tribal parents to go out to seek work, thus inducing their children to stay away. Other limiting factors are the lack of adequate social awareness about the programmes, the distances from immunisation centres and mismatches in their working hours. Even so, the immunisation programme in the tribal blocks of Malda district has been a success.

Sanitation programmes in tribal areas on the other hand are still more or less a failure, the reasons for this being partly rooted in tribal customs. Although the government subsidies provided for the construction of sanitary toilets have been utilised by several tribal families, most tribals are reluctant to use these, because of tribal traditions that regard these amenities as impure.

## Other Living Amenities

Energy-use within tribal families is still limited and the fuel sources remain primitive. Commercial energy is seldom used, and tribal communities fall back on their

traditional gathering systems to ensure the flow of non-commercial fuels. These primarily comprise agro wastes like *nara*, mustard straw and wheat straw, fallen leaves, dried branches from trees, etc. Dung-cakes are seldom used, since the village cattle stocks are too limited to meet the joint needs of manuring and fuel consumption. Paradoxically, regular consumption of straw as a fuel by tribal families also reduces fodder availability and thus limits the number of cattle they can support. Rural electrification in the tribal areas is still inadequate, as a result of which kerosene remains the primary source of lighting for the rural families.

In most tribal villages, safe drinking water is inaccessible, forcing tribal communities to depend on unhygienic sources. Partially, this problem reflects general water scarcity over large parts of the Barind tract, where ponds are scarce, water tables are very low, and the deep village wells sometimes dry up over the summer months. It is not unusual for tribal women to fetch drinking water from sources that are up to one kilometre away from their homes. In the absence of ponds and other water bodies, bathing and personal hygiene also becomes a problem.

A great bane among tribal societies, caused by the physical and social isolation within which they live, is the general lack of information about the external world. As a consequence of this, even educated tribal youth remain unaware about the job opportunities or vacancies that exist, while in another part of the same world, job positions reserved for the STs go abegging. Most tribal communities remain equally unaware about the ongoing development schemes of the Government, and the village panchayats presently appear to do little to apprise them about these. In a recent instance witnessed in the village of Dakshin Naopara in Bamangola block with an ST amounting nearly 44 percent, no village resident was found to have secured either an old-age or widow pension. Unconfirmed reports also stated that no person from this village had been included in the BPL list, even though visible signs of poverty were everywhere.

## Development Impact of Community Differentiations

Besides such aspects of human development among the tribal communities of Malda, the cultural diversity of

the population in Malda district has a profound economic impact on each resident community. Closer examination of such differences between the principal religious communities reveals a significantly higher proportion of children in the 0-6 year age-group among Muslims than in the other religious groups. Thus while children of this age group account for nearly 22 percent of the Muslim population, they form less than 17 percent of the population in the Hindu communities and less than 16 percent of the numerically small Christian population. However FMR ratios are higher among the Muslim communities, both for the general population and 0-6 year age-group (CFMR) and are

highest for the Christian community. Relating these logically to infant mortality and child survival, all major religious communities show attrition between CFMR and general FMR, reflecting differences in the survival rates of girls and boys. However, the high level of FMR attrition in the case of the Hindus indicates higher mortality of Hindu girl children as higher rates of migration into the district among Hindu males. Among the numerically small communities belonging to other religions, the general FMR shows lower levels of masculinity than CFMR, indicating the many males from this community possibly migrate away from the district during their adulthood.

**Table: Broad Socioeconomic Characteristics of Principal Religious Groups in Malda**

**Census 2001**

	2001 All Religions	2001 Hindus	2001 Muslims	2001 Christians	2001 Others
Population	3290468	1621468	1636171	8388	24441
Male Population	1689406	834023	839102	4087	12194
Female Population	1601062	787445	797069	4301	12247
0-6 Population	639904	275197	358876	1320	4511
0-6 Males	325888	140359	182600	615	2314
0-6 Females	314016	134838	176276	705	2197
<i>% 0-6 Population</i>	<i>19.45</i>	<i>16.97</i>	<i>21.93</i>	<i>15.74</i>	<i>18.46</i>
<i>FMR Ratios</i>	<i>948</i>	<i>944</i>	<i>950</i>	<i>1052</i>	<i>1004</i>
<i>CFMR Ratios</i>	<i>964</i>	<i>961</i>	<i>965</i>	<i>1146</i>	<i>949</i>
Total Literates	1332704	743573	578591	4486	6054
Male Literates	801770	456430	338479	2599	4262
Female Literates	530934	287143	240112	1887	1792
<i>% Literacy</i>	<i>50.3</i>	<i>55.2</i>	<i>45.3</i>	<i>63.5</i>	<i>30.4</i>
<i>% Male Literacy</i>	<i>58.8</i>	<i>65.8</i>	<i>51.6</i>	<i>74.9</i>	<i>43.1</i>
<i>% Female Literacy</i>	<i>41.3</i>	<i>44.0</i>	<i>38.7</i>	<i>52.5</i>	<i>17.8</i>

Although the religious composition of the district population in Malda is finely balanced between the Hindus (49.3 percent) and the Muslims (49.7 percent), the Hindus account for nearly 56 percent of the literate sections among the population compared to 43 percent for the Muslims. Proportions change in the case of male and female literates, with the literate Hindu males accounting for more than a third of the total number of literates in the district, compared to barely 25 percent for Muslim males. Since literacy differentials widen between males and females for both religious communities, female Hindu literates compose 21 percent

of the literate population in Malda while literate Muslim females compose 18 percent. For all religious communities including the numerically smaller groups, the average literacy gaps between males and females range between 13 percentage points for the Christian community and nearly 22 percentage points for the Muslims. In comparison, the literacy gap between Hindu males and females amounts to 17.5 percentage points. In sum, while the Hindus and Muslims in Malda district have almost equivalent populations of 16.2 lakh and 16.4 lakh respectively, the Hindu communities on the whole are more literate and better

educated. In general, the male population within the Hindu and Muslim communities has been able to exercise better leverage over education compared to females. The gap between Hindu and Muslim women in terms of literacy achievement is not nearly as wide as that between Hindu and Muslim males.

Cultural occupational patterns within the principal religious communities in the district are considered next in the accompanying table, where the figures for the workforce include both main and marginal workers. Despite near equality between the Hindu and Muslim population in Malda, the Hindus account for a larger segment within the working population compared to the Muslims, particularly among agriculturists. As such, Hindus comprise nearly 11 percent of the district's cultivators and 16.5 percent of the agricultural labourers, compared to corresponding levels of 9.5 percent for Muslim cultivators and 13.5 percent for Muslim agricultural labourers. The Muslim communities participate much more strongly in household-based manufacturing activities such as artisanry and consequently contribute 10.2 percent of the district's household-based workers, compared to 5.4 percent within the Hindu community. 2 out of every 3 household-based workers in Malda are Muslim. The category of 'Other Workers' employed by the 2001 Census includes other non-farm based occupations, including trade, commerce and services. In this category of work which is strongly influenced by trade- and service-flows and patterns of urbanisation, the

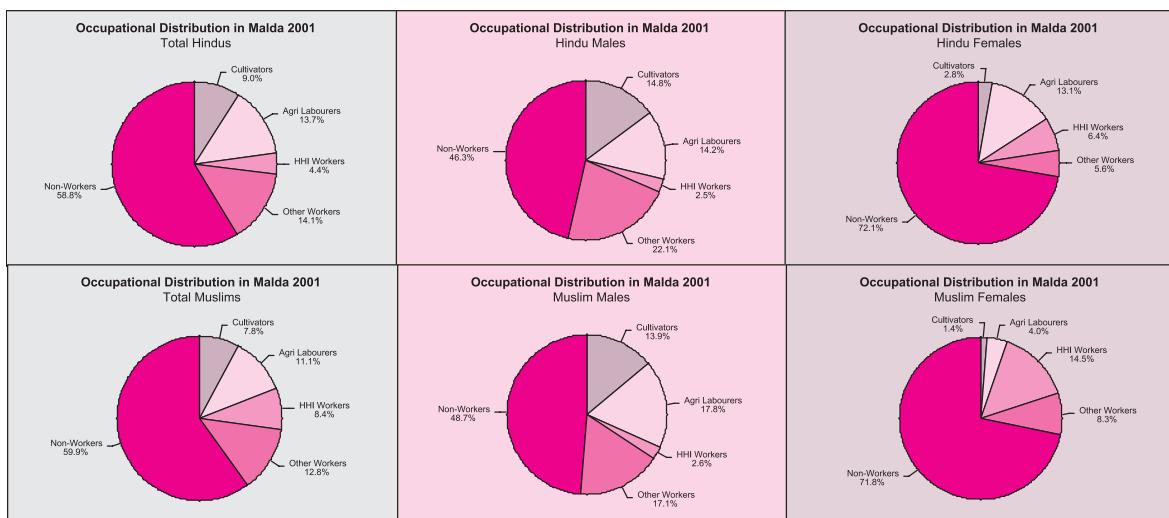
presence of Hindus strongly outnumbers the presence of the Muslim community, with Hindu workers in this category comprising over 17 percent of the aggregate workforce, compared to 15.7 percent for Muslim workers. Aggregate work participation among the Muslim communities in Malda is correspondingly lower at 40 percent of the Muslim population, against 41 percent for the Hindus. This difference results from the greater participation of the Hindu communities in both farm based and non-farm based economic activities, with the sole exception of the household production sector, where the aggregate complement of workers is necessarily small. Within the Muslim communities, where the number of under-aged children is also higher, each worker supports an average of 1.49 dependents, against 1.43 dependents per Hindu worker. Among the numerically-small cultural communities belonging to the Christian and other religions, dependency ratios are considerably lower. With lower work participation and high dependency, the Muslim communities in the district are subject to greater economic pressures. However, rather than reflecting the unwillingness to work hard, lower work participation rates among the Muslims indicate the general unavailability of work opportunities in the densely-settled Tal and Diara blocks where they form a majority. Because of consequent economic pressures, these regions have in recent times been characterised by the seasonal outmigration of many rural citizens for work to distant places outside the district and the state.

**Table: Occupational Distribution among Principal Religious Communities in Malda**  
**Census 2001**

<i>All Religions</i>	2001 Hindus	2001 Muslims	2001 Christians	2001 Others	2001
Total Workers	1340706	667366	655908	4171	13261
Cultivators	279276	145558	127713	1379	4626
Agricultural Labourers	411862	221494	181036	1677	7655
Household Industry Workers	209307	71768	137153	281	105
Other Workers	440261	228546	210006	834	875
Non-Workers	1949762	954102	980263	4217	11180
<i>WPR</i>	<i>40.7</i>	<i>41.2</i>	<i>40.1</i>	<i>49.7</i>	<i>54.3</i>
<i>Dependency-Ratio</i>	<i>1.45</i>	<i>1.43</i>	<i>1.49</i>	<i>1.01</i>	<i>0.84</i>
<i>Male Population</i>					
Total Workers	887827	447506	430867	2286	7168
Cultivators	244231	123178	116733	951	3369
Agricultural Labourers	271588	118677	149162	640	3109
Household Industry Workers	42850	21267	21429	136	18
Other Workers	329158	184384	143543	559	672
Non-Workers	801579	386517	408235	1801	5026
<i>WPR</i>	<i>52.6</i>	<i>53.7</i>	<i>51.3</i>	<i>55.9</i>	<i>58.8</i>
<i>Female Population</i>					
Total Workers	452879	219860	225041	1885	6093
Cultivators	35045	22380	10980	428	1257
Agricultural Labourers	140274	102817	31874	1037	4546
Household Industry Workers	166457	50501	115724	145	87
Other Workers	111103	44162	66463	275	203
Non-Workers	1148183	567585	572028	2416	6154
<i>WPR</i>	<i>28.3</i>	<i>27.9</i>	<i>28.2</i>	<i>43.8</i>	<i>49.8</i>

Gender divisions of work are broadly similar between the two principal religious communities in Malda district. Between 46 to 49 percent of the male population remains idle and falls into the non-working category, the higher figure applying to the Muslim communities. The proportion of non-workers is markedly less among the minuscule communities belonging to other religions. Among women, however, the proportion of the non-working population is particularly high at around 72 percent for both Hindus and Muslims. Thus while differences in male work

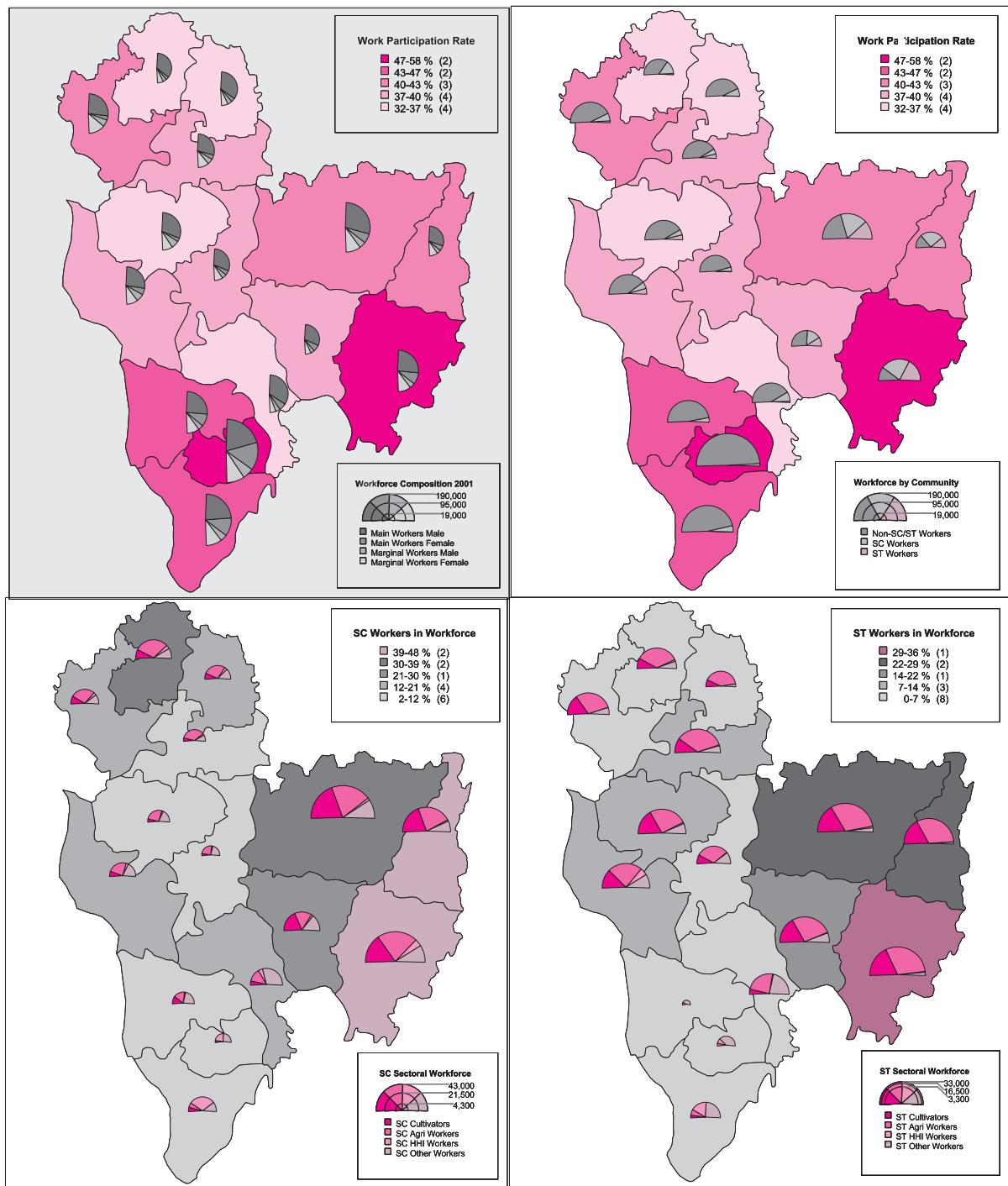
participation between the two communities can be partially attributed to differences in the availability of work, low work participation among women is primarily the result of the social bindings which confine them to unpaid household work, the patterns being similar for both dominant religious communities. On the other hand, in the numerically smaller cultural communities, the proportion of non-working women shrinks to between 50-54 percent, indicating that women in these communities face less social restriction while seeking work.



Between these limits that broadly define working and dependent segments within the population of Malda district, the community and gender divisions within the working population are quite strong as indicated pictorially in the associated charts. Within the aggregate district population, 13.4 lakh main and marginal workers (comprising 6.67 lakh Hindus and 6.56 lakh Muslims) support a non-working population of 19.5 lakh, at an overall dependency ratio of 1.45. The non-working segment within the population segment is larger in the Muslim communities. Approximately 6.9 lakh workers are farm based, comprising 3.67 lakh workers from the Hindu communities and 3.1 lakh from Muslim groups. Participation of the Hindu communities in farm based work surpasses that of the Muslims primarily because the total number of main and marginal Hindu cultivators (1.46 lakh) surpasses the number of Muslim cultivators (1.28 lakh). However this cultural difference also persists among the 4.1 lakh workers engaged in agricultural wage-work in Malda district, 2.21 lakh of whom are Hindu against 1.81 lakh from the Muslim communities. Thus on an average, while there are 1.52 agricultural labourers per cultivator within the Hindu farm based working population, the equivalent ratio among the Muslims falls to 1.42 agricultural labourers per cultivator.

More Muslims in the district participate, however, in non-farm based activities, where the aggregate number of Muslim workers is approximately 3.5 lakh against

3.0 lakh Hindu workers. Thus in ratio terms, while out of every 10 workers among the Hindus, 6 are liable to be engaged in farm based work and 4 in non-farm based work, the split between farm based and non-farm based activities among the Muslim working population is exactly even with 5 out of 10 workers engaged in each of these work-categories. Muslim participation in non-farm activities is high because of the greater involvement of the Muslim community in artisanry and other home-based production activities. Thus among the 2.1 lakh workers currently engaged in these activities in Malda, 1.4 lakh workers are drawn from the Muslim communities. On the other hand, the involvement of Hindu workers is greater in other categories of non-farm based work where 2.3 lakh Hindu workers participate against 2.1 lakh workers from the Muslim communities. It thus appears that the Muslim work participation in non-farm occupations is primarily directed towards traditional skill-based economic activities. In contrast, the Hindu communities are more urbanised and thus have greater access to other categories of non-farm work. In overall terms, however, because work participation among the Hindu communities in Malda district is greater, the Muslims make up the greater part of the non-working population of nearly 20 lakh. The size of the dependent population among the Muslim communities thus amounts to 9.8 lakh against approximately 9.5 lakh among the Hindus. Large family-sizes and the higher proportion of underage children in the Muslim communities are also partially responsible for this.



Of the aggregate workforce of 13.4 lakh in Malda district, nearly 67 percent or 8.88 lakh workers are male. Within the male workforce, 5 out of every 8 workers are currently engaged in farm based work. However, this division between farm based and non-farm activities is reversed within the workforce of 4.5 lakh women engaged in main or marginal work, where 5 out of every 8 women workers are involved in non-farm activities. Among the male workers, the number engaged in farm

based activities within the Hindu communities amounts to approximately 2.4 lakh, against 2.1 lakh who engage in non-farm activity. The degree of involvement of the Muslim male workforce in farm based activities is even stronger at 2.7 lakh against the 1.7 lakh Muslim males who participate in non-farm based activities. However, many more Hindu males are cultivators rather than agricultural wage-workers. Thus in proportional terms, over 51 percent of the cultivators

in Malda district are Hindu. Conversely, 56 percent of the male agricultural workers in the district are Muslims, reflecting higher levels of marginal farming or landlessness among the Muslim communities. The presence of women cultivators in Malda is rare. Two thirds of the existing women cultivators are Hindu and a third are Muslim. Many more women are agricultural wage-workers, nearly three-fourths of whom are from the Hindu communities. Household-based production absorbs the largest proportion of women workers in Malda, accounting for nearly 2 out of every 5 women workers. Most women household-based workers, however, are from the Muslim communities, primarily because of the widespread involvement of Muslim women in activities such as sericulture. Similarly, more Muslim women participate in the other categories of non-farm work, which include the *bidi* factories of Kaliachak. Collectively, therefore, 1.82 lakh Muslim women participate in non-farm activities, against just under 1 lakh women from the Hindu communities. Such ratios are reversed in case of farm based activities, in which 1.4 lakh Hindu women participate, against 0.42 lakh women from the Muslim communities.

In broad terms, work participation rates are generally higher in the Barind and Tal regions of Malda district, with Habibpur and Kaliachak 1 blocks representing two territorial pockets where work participation neighbours on 50 percent. Within the more densely-settled tracts of the district, Harischandrapur 1, Chanchal 1, Ratua 1 and Englishbazar show lower rates of work participation, probably because of the mismatch between human settlement pressure and rural work availability. Work participation in all three Kaliachak blocks is relatively high. Variations in the composition of the workforce in different parts of the district, however, show that considerable difference exists within the availability and duration of local work opportunities, as reflected relatively by the presence of main versus marginal workers within the workforce. Over most of the Tal and Barind blocks as well as in Manikchak and Englishbazar, male main workers compose more than half of the composite main and marginal workforce. However, in most Malda blocks, the proportionate presence of female marginal workers within the workforce is in the relatively narrow range of 17-21 percent, except in two regional pockets. The first of these is in the northern blocks of the Tal, where

the lower proportionate presence of women marginal workers around at 13 percent in Harischandrapur 1 and Chanchal 1, is compensated by their high proportion as 28 percent of the block workforce in Harischandrapur 2. Since work participation by women main workers is also low in this region of the district, this reflects an overall shortage of work opportunities for both men and women, as a result of which the women are left with fewer work opportunities. The proportion of women main workers gradually rises through the Barind blocks and the Diara and is highest in Kaliachak 1 where it touches 30 percent. The second pocket of low women's work participation occurs in Englishbazar and Old Malda blocks. Once again the high relative presence of male main and marginal workers indicates a relative paucity of work opportunities, because of which women are left fewer opportunities for work.

Although direct information is not available on the disaggregated patterns of work participation across all Malda blocks for the different cultural communities, some idea of their nature be obtained by comparing the relative presence of SC, ST and non-SC/ST workers in the workforce at block-level. Because of the high combined numerical weight of SCs, STs and Muslims in the population in Malda district, amounting to nearly 74 percent of the district population in 2001, the presence of Hindu upper-castes in the district population is relatively small. Hence figures for work participation by the non-SC/ST population in the Tal and Diara, where Muslim settlement is strong, overwhelmingly reflect the existing patterns of work participation among the Muslim communities. Through most of the Tal and Diara blocks, the non-SC/ST communities contribute the greater part of the block workforce, rising to very high levels at the southern end of the Diara, in the Kaliachak blocks, where the SC presence in the population is limited and the ST communities are virtually absent. In the Barind blocks, however, the SC and ST communities provide more than half of the block workforce, their presence being overwhelmingly high in Habibpur, followed by Bamangola. In numerical terms, the block workforce is very large in size in densely populated blocks like Kaliachak 1 & 3, or in very large blocks like Gajol. Consequently, the bulk of the district's working population lives in such blocks.

The SC communities that reside in Malda district are

distributed more evenly than the tribal communities, which are found mainly in the Barind, and in smaller numbers in the Chanchal 2 -Ratua 2 - Manikchak region between the Tal and Diara tract. These variations in the cultural patterns of settlement are also reflected in the patterns of work participation among the SC and ST communities across the district. Work participation rates among the SC communities are highest in the Barind blocks of Habibpur and Bamangola, where they touch levels between 39-48 percent. Relatively high WPRs are also seen among the SC communities in Harischandrapur 1 and Gajol, but are relatively lower in other parts of the Tal and Diara. Among the tribal communities, work participation is high to very high in all parts of the Barind, where they also reside in large number. In the Tal and Diara region their presence and work-participation is primarily limited to the Chanchal 2 -Ratua 2 - Manikchak region, since they form a minor component of the population in the other blocks.

SC cultivators are mainly found in the Barind blocks, where SC workers also participate extensively in agricultural wage-work. Since the Barind is a rainfed monocrop area, most SC cultivators combine marginal farming with wage-work. However, except in Harischandrapur 1 block, their presence as cultivators in most of the Tal and Diara is insignificant, where they also hold very little land. Thus their work participation in this region is mostly in agricultural wage-work. A small contingent of household based workers is found among the SC communities that reside in Habibpur, which rises considerably in proportionate terms in Kaliachak 1 & 3 blocks, where agricultural land is scarce and settlement densities are high. However, through most of the Malda blocks, the participation of SC workers in other non-farm based work is relatively high, and becomes overwhelmingly high in the contiguous Englishbazar, Manikchak, Ratua 1 & 2 and Kaliachak 2 blocks, where the opportunities for such categories of work are also accordingly higher.

In the Barind and in a small corridor through the Tal and Diara which represents their old regions of settlement, the presence of tribal cultivators belonging to the ST communities is relatively high. Most tribal cultivators have acquired their tenures over agricultural land through ancestral inheritance, rather than through a subsequent act of purchase. Since the Barind is a dry monocrop area, they combine marginal farming with agricultural wage-work. Although slow, multiplication of

the tribal population in this region has gradually multiplied the agricultural workforce, as a result of which the largest component within the ST workforce comprises agricultural wage-workers. Tribal cultivators are also present elsewhere through most of the Tal blocks, but their work participation in the Tal and in Manikchak block is mainly as wage-workers. In the Kaliachak blocks on the other hand, agriculture no longer constitutes the principal economic activity. Accordingly, the few tribals that live here are mostly engaged in household based activities and in other non-farm work.

## **Rural-Urban Differentials between Cultural Communities**

Urbanisation levels in Malda district are still very low, bordering on 7.9 percent. However, the level of urbanisation is not even across all cultural communities, and is low among the Muslims, SC communities and the tribal population, very small sections of which have moved into the urban centres. Urbanisation levels among upper-caste Hindus on the other hand are relatively high. Review of these rural-urban differentials reveals much more homogeneity between the different cultural segments of the urban population, than exists in the rural areas of the district. In terms of literacy differences between principal religious communities, all urban sections within these communities exhibit high to very high levels of literacy attainment, although literacy levels are slightly higher among the urban Hindu community than among the Muslims, and are highest among the numerically small Christian minority. However, gender gaps in urban literacy among all three communities are of the same relative order, widening marginally among urban Muslims community to just over 10 percentage points. Rural literacy in Malda falls far short of the levels of urban literacy. It is also seen that while Hindu rural males in the district show considerably higher levels of literacy attainment compared to the males in the rural Muslim community, the gender literacy gap within the Hindu rural community is considerably wider than among the Muslims. Consequently, both Hindu and Muslims females within the rural community show similarly low levels of literacy. Such patterns appear to imply that social leverage among rural Hindu males compared to their Muslim

counterparts, resulting in higher levels of male education and literacy. However, since both communities remain similarly conservative with regard to the attainment of literacy by rural women, the positions of women within the rural Hindu and Muslim communities are more uniform.

Cultural differences also show up consequently in the patterns of work participation among rural and urban segments of the principal communities in the district. Despite higher literacy attainment among the urban population, overall work participation is low, primarily because of low levels of work participation by urban women. Work participation rates within the urban Hindu population consistently surpass the levels of work participation among the Muslim community. Consequently, dependency among urban Muslims

considerably exceeds the dependency rates among the urban Hindu population.

Overall WPRs rise by an average of 10 percentage points within the rural segments of these communities, mainly because of increased work participation by rural women in both principal cultural communities. Although rural dependency rates are consequently lower, the basic differences between the Hindu and Muslim segments are maintained. However, these broad patterns of work participation in Malda district also appear to indicate that cultural conservatism is probably not a major factor in the existing socioeconomic differentials between the Hindu and Muslim communities. Rather such differences are rooted in other economic phenomena, such as land access and availability of rural work.

**Table: Rural-Urban Differentials between Religious Communities in Malda**

	Malda Rural <i>All Religions</i>	Malda Rural <i>Hindus</i>	Malda Rural <i>Muslims</i>	Malda Rural <i>Christians</i>	Malda Rural <i>Others</i>	Malda Urban <i>All Religions</i>	Malda Urban <i>Hindus</i>	Malda Urban <i>Muslims</i>	Malda Urban <i>Christians</i>	Malda Urban <i>Others</i>
Population	3049528	1407962	1609596	7962	24008	240940	213506	26575	426	433
Male Population	1565654	724430	825396	3870	11958	123752	109593	13706	217	236
Female Population	1483874	683532	784200	4092	12050	117188	103913	12869	209	197
Literates	1164757	593155	561747	4157	5698	167947	150418	16844	329	356
Male Literates	709933	374215	329238	2420	4060	91837	82215	9241	179	202
Female Literates	454824	218940	232509	1737	1638	76110	68203	7603	150	154
<i>% Literacy</i>	<i>47.8</i>	<i>51.2</i>	<i>44.8</i>	<i>62.1</i>	<i>29.2</i>	<i>79.3</i>	<i>79.9</i>	<i>73.7</i>	<i>86.8</i>	<i>91.0</i>
<i>% Male Literacy</i>	<i>56.6</i>	<i>62.7</i>	<i>51.1</i>	<i>73.8</i>	<i>42.0</i>	<i>84.4</i>	<i>85.1</i>	<i>78.6</i>	<i>91.8</i>	<i>95.3</i>
<i>% Female Literacy</i>	<i>38.4</i>	<i>39.0</i>	<i>38.1</i>	<i>50.9</i>	<i>16.6</i>	<i>73.8</i>	<i>74.5</i>	<i>68.5</i>	<i>81.5</i>	<i>86.0</i>
Total Workers	1264245	598855	648246	4037	13107	76461	68511	7662	134	154
Cultivators	278552	144908	127644	1378	4622	724	650	69	1	4
Agricultural Labourers	411171	220830	181013	1677	7651	691	664	23	0	4
Household Industry Workers	205074	67803	136890	280	101	4233	3965	263	1	4
Other Workers	369448	165314	202699	702	733	70813	63232	7307	132	142
Non-Workers	1785283	809107	961350	3925	10901	164479	144995	18913	292	279
<i>General WPR</i>	<i>41.5</i>	<i>42.5</i>	<i>40.3</i>	<i>50.7</i>	<i>54.6</i>	<i>31.7</i>	<i>32.1</i>	<i>28.8</i>	<i>31.5</i>	<i>35.6</i>
<i>Male WPR</i>	<i>52.7</i>	<i>54.0</i>	<i>51.4</i>	<i>56.4</i>	<i>58.8</i>	<i>50.8</i>	<i>51.2</i>	<i>47.9</i>	<i>47.0</i>	<i>56.8</i>
<i>Female WPR</i>	<i>29.6</i>	<i>30.3</i>	<i>28.6</i>	<i>45.3</i>	<i>50.4</i>	<i>11.6</i>	<i>12.0</i>	<i>8.6</i>	<i>15.3</i>	<i>10.2</i>
<i>Dependency-Ratio</i>	<i>1.41</i>	<i>1.35</i>	<i>1.48</i>	<i>0.97</i>	<i>0.83</i>	<i>2.15</i>	<i>2.12</i>	<i>2.47</i>	<i>2.18</i>	<i>1.81</i>

## Distinctive Cultural Communities

### (a) The Shershabadiya or Badiya

The origin of the Shershabadiya community in Malda has been attributed by S.K.Zahiri to the large numbers

of Pathan soldiery who stayed behind after Shershah Suri had been ejected from Bengal by Humayun during the 16<sup>th</sup> century. The Survey & Settlement Report for the district concurs that the physical appearance of the Shershabadiya differs distinctively from that of the

Marathas, lending support to the hypothesis that the community comprises the descendants of the Afghan army of Shershah. Although the community is known more generally as the Badiya, in the opinion of Dr. Mohammad Sahidullah, the name Shershabadiya that describes the community indicates that its members were originally resident in the old Shershabad Pargana of Bengal. The community is now spread over Malda and Murshidabad districts of West Bengal and in adjoining Bangladesh.

In Malda, the Shershabadiyas mainly inhabit rural areas within the Tal and the Diara and are known to be industrious and efficient cultivators. Small Shershabadiya groups are also found in Nadia, Birchum, Uttar Dinajpur, Jalpaiguri, Darjeeling and Coochbehar districts within West Bengal, in Sahibganj, Dumka and Pakur districts in Jharkhand, and also in Katihar, Kishanganj, Saharsa and Purnea districts in Bihar. The total Shershabadiya population that resides across this region is now estimated at around 1 crore. However, no estimate of their exact number has been available in the Indian censuses after 1931. The Badiya community has seven internal divisions, namely

- (a) the Shershabadiya or Shershabadi
- (b) the Phulbari Badiya
- (c) the Penchi Badiya
- (d) the Chakaia Badia
- (e) the Jugi Badiya
- (f) the Bhatiya Badia
- (g) the Nengti Khula Badiya

of which the Shershabadiya or Badiya form the principal division.

Shershabadiya males are usually large men of distinctive appearance and are physically hardy and strong. In his Survey & Settlement Report, M.O.Carter observes that these distinctive physical traits and the social cohesion of the community have been preserved because intermarriage with any other Muslim community group is prohibited. Noting that the Shershabadiya make good agriculturists because of their willingness to expend a considerable part of their time and labour towards the reclamation of land that other cultivators would disdain, the report states that most of the Tal areas within the Ratua and Harischandrapur thanas had been brought under cultivation by them, and that they had more

recently extended their efforts to the *dubas* or wetland valleys along the Tangan and Punarbhaba rivers. The superiority of the Shershabadiya as cultivators is ascribed to their intimate understanding of the properties of the soil and their willingness to work for much longer hours than the average cultivator. Another distinctive economic trait observed within the community is that they usually complete their agricultural work by midday so that they can take up additional work, thus keeping themselves busy through the entire day. During the agricultural slack season, some of them also engage in the agricultural trade as middleman, making a little profit by buying up paddy from the villages in order to sell it at the local markets.

Despite this obvious industry, the community has lagged behind in terms of education, especially with respect to female literacy rates. Within their own community, the Shershabadiyas speak their distinctive dialect and being orthodox by religion, they prefer to secure their education at traditional *madrasahs*. The practice of early marriage is another cause of low literacy rates among Shershabadiya women. However, male literacy rates within the community have recently been increasing even though the majority of the community is still illiterate. Because of their preference for traditional forms of education, many Shershabadiya males aspire for qualifications as Hafez, Alem, Fazil, etc. that enable them to serve as Imams at village mosques in Malda. In much smaller numbers, a few Shershabadiya males have also recently become doctors, lawyers and teachers etc.. In Malda therefore, the educational status of the Shershabadiya Muslims is still discouraging. Traditionally, however, the community has played an important cultural role, and several good singers, writers and scholars have merged within it. Since 2002, the Shershabadiyas have been declared as belonging to the OBCs or Other Backward Castes within West Bengal (vide notification no. 5001-BCW/ MR-436/99 dated 07.10.2002).

### **(b) The Chain Mandal**

Another interesting cultural subgroup that resides within Malda is the Chain Mandal community that lives in the tracts to the west of the district. In the first district Census taken in 1872, the Chain emerged as a fairly numerous and well-defined community with an aggregate population of 30,000 residing within the district. A distinctive peculiarity of this community is

that its members never touch a chain, not even drawing water from a well if they find a chain attached to it. Several differing opinions are found regarding the origin of the Chain Mandal community. While H.H.Risley avers that the Chain, Chai or Bara Chain were a cultivator and fishing caste originally from Bihar and central Bengal who were probably an offshoot from some preceding non-Aryan tribe, other scholars have connected them to the Tharu and Nat communities and other semi-nomadic sub-tribes inhabiting the base of Himalaya, who all have certain Mongoloid features in common.

The Chain Mandals are well dispersed today over the districts of Malda, Uttar and Dakshin Dinajpur, Murshidabad and Nadia in West Bengal, and are found in small communities in Bihar, in the erstwhile Avadh region of Uttar Pradesh and also in Nepal. The Chain communities of Malda are generally classified into two exogamous subgroups, namely the Bara (big) and Chhota (small) Chain, whose culture and social behaviour differ distinctively. The Bara Chain are represented by the Chain Mandals, while the Chhota Chain are simply known as Chain. In the Settlement Report for the district, G.E.Lambourn also observes that intermarriage is not allowed between the Bara Chain and Chhota Chain. Like the Shershadiyas, the Chain Mandals also speak their own dialect, which differs from standard Bengali. However, despite minor differences, the dialects spoken by the Bara Chain and

Chhota Chain are essentially the same. To some extent, the Chain dialect resembles that of the Maithils, and many Chain Mandals are bilingual, using Bengali when they converse with other communities but preferring to use their own dialect when conversing within their families or within their community. Because of differences in intonation, their fluency and diction in Bengali is somewhat limited.

By occupation, the Chain Mandals now principally engage in agricultural labour and cultivation and minor forms of trade, and are backward both educationally and economically. Although all members of a Chain family participate actively in such work, the family often cannot mobilise two square meals a day. In the Statistical Account of Malda, W.W.Hunter observes that, like the Bind, the Chain were chiefly boatmen and fishermen. Although more contemporary figures for their present population within Malda are unavailable, their population in the West Bengal in the 1872 census was enumerated at 57,802 and was estimated by Kaka Kalekar to have risen to 908,491 in 1955. The Bara Chain or Chain Mandals have a more limited geographical distribution compared to the other section of the Chain community, being confined largely to a limited part of Malda and Bihar. The first and second Backward Class Commissions (Kalekar Commission 1955 and Mandal Commission 1980) identified the Chain Mandals among the most depressed castes presently residing within West Bengal.

### Chart: Linguistic Samples of Local Dialects spoken by Cultural Communities in Malda

Chain dialect	English translation
<i>Hamma cha khake bazaar jap</i> <i>Nirmala torake boi delkao</i> <i>Jalna jal deke machhi dharkao</i>	<i>I shall go to market after taking tea</i> <i>Nirmala gave you a book</i> <i>The fisherman catches fish with a net</i>
Bihari or Maithili dialect (as used in Darbanga District)	English translation
<i>Ek gota-ke dui beta rahak. Chhotka beta bapsan</i> <i>kahalkaikje 'Bap, hamar hissa sobh dhan dai de'.</i> <i>Bap okar hissa dhan baant del kaik</i>	<i>A person has two sons. The younger son said to his father 'Father, give me my share of (your) wealth, The father distributed his share of the wealth</i>
Maithili ( <i>Chikka-Chikki Boli</i> ) (as used in Bhagalpur District)	English translation
<i>Aadmi ke du beta rahai, okra me se chhotka apun</i> <i>bap se kahal kai ki, Babuji dhan hamra bakhra me</i> <i>hoy u hamra dai de. Ekra par u apno dhan okra</i> <i>baanti del kai</i>	<i>A person had two sons. The younger son said to his father 'Father, give me my share of (your) wealth, The father distributed his share of the wealth</i>
Maithili (as used in Begusarai & Munger Districts)	English translation
<i>Koi gaon-me ego goth rahai. Jab o kamaet das</i> <i>pandrah rupaiya gaur kailak, tab apna maugi-se</i> <i>kahak ki, Ai rupaise ham bhains mol-leb'</i>	<i>There was a weaver in a certain village. When he earned some ten to fifteen rupees, he told his wife, 'I shall buy a buffalo with these rupees'</i>
Khotta dialect	English translation
<i>Koi gaunme ek gocha the, jab o das se panra rupia</i> <i>kamaya, o bahu ko bola, 'Ham is rupiese ek bhains</i> <i>kharid lenge'</i>	<i>There was a weaver in a certain village. When he earned some ten to fifteen rupees, he told his wife, 'I shall buy a buffalo with these rupees'</i>
Bind dialect	English translation
<i>Ham nadime snan nahin karna hai</i> <i>Kanghi khoj ke nai pabehi</i>	<i>I am not going to bathe in the river</i> <i>After searching for the comb, I am not finding it</i>
Equivalent sentences in different Local dialects	English translation
Bind: <i>Jorse bol, hum sune nai pabehi.</i> Nagar: <i>Jorse bol, ham sunal nai palchhe</i> Chain: <i>Jorse ka, hamma suna nai pabehi</i> Tiyar: <i>Jorse kahin, hamma sune nai palbi</i> Dhanuk: <i>Jorse bol, hamma sunala nai pabe</i>	<i>Speak louder, I cannot hear</i>

#### (c) The Maithil

The Maithils or Maithili Brahmins who are now a flourishing cultural community of the Diara region in Malda district are believed to have originally migrated to this location from the ancient Mithila region of Bihar, which corresponds to the present-day district of Darbhanga. Etymologically, the name Darbhanga derives from *Dwarbhanga* or the Gateway to Bengal. Nimai Chandra Kumar's book on 'Mithila in India', published in 1955 by the Darbhanga Raj, states that the migration of the Maithils to the Araidanga region of Malda initially commenced during the middle of the

18<sup>th</sup> century, during the reign of Alivardi Khan as the *subahdar* of Bengal. Several members of the Maithil Brahmin community were bestowed gifts of land by the Malda zamindars, in lieu of their performance of various religious and cultural duties. Today the Maithil community in Malda has spread over Bangitola, Durlabhpur, Rathbari, Sovanagar, Kahala, Paranpur, Araidanga, Dharampur, Najirpur, Phulbaria which are all part of the Diara, and an urban section lives in the town of Old Malda. In the 1951 Census Handbook for Malda, Asok Mitra notes that of the 11-12 thousand families of Maithils that had originally

populated ancient Mithila, at least 2 thousand were believed to have migrated eastward into Malda and Bengal. Mitra also notes that the internal cohesion within the Maithili-speaking community stems from the lack of internal caste distinctions within it, and from common adherence to core religious doctrines based on the Tantras led by the priestly sections of the community. Linguistically, Maithili is still spoken within the community and Bengali outside it. Maithili is the ancient language spoken throughout the Tirhut region of Bihar, which is closely allied to Magahi (ancient Magadhi) and more distantly to Bhojpuri – the other dominant dialects spoken in Bihar. In some respects, Maithili is also closer to Bengali, for instance in its use of the substantive *chhai* or *achhe*, in lieu of the *hai* used in Magahi or *bate*, *bare* or *hawe* in Bhojpuri, as pointed out by Grierson.

Despite the cultural homogeneity of the Maithil community, economic distinctions have nevertheless arisen within it, primarily because of differences in the pursuit of livelihoods and professions. Forming about 10 percent of the community, the more scholarly sections traditionally constituted the most advanced community layer, followed by around 68 percent of the community who preferred to practice cultivation. The remainder of the Maithils either entered the service of the zamindars or Government, or engaged themselves in trade and commerce. Today, however, the principal economic strength of the community derives from high levels of education. Literacy within the community is now estimated at around 95 percent, and a very large section among its educated members are presently employed in Government and allied services or in educational institutions. Around 10 percent of the community are now engaged in highly-respected professions as lawyers, doctors, etc.

#### **(d) Other Brahmin Communities**

Several other Brahmin groups now found in Malda are not original residents of the district, but have emigrated into Malda, chiefly from Bihar. The ancient Gaur region rose into prominence subsequent to the Pala period under the Sena dynasty, particularly during the rule of Ballal Sen when its power reached a zenith and its realms spanned the five divisions of Rarh, Banga, Bagri, Barendri and Mithila. Particularly in Barendri – with its Buddhist past – there were few hereditary priests to perform religious rites for the

Hindu Senas. Hence Ballal Sena is believed to have invited highly-placed Brahmins from the Pande, Gokul, Sukla, Dwivedi and Tiwari families of Kanyakubja (Kanauj) to settle in the extended kingdom, encouraging their migration by liberal gifts of land. Further migration from the Kanauj region continued as the original families became entrenched and needed more of their brethren to function as land-agents and to maintain their properties. Several of these later Kanyakubja migrants also rose to considerable economic power, because they combined their services with the practice of usury. However, many others were refined and well-educated and consequently occupied dignified positions in the various services. Some others also chose to engage directly in cultivation. Today, the descendants of these Kanyakubja communities who live in certain parts of Old Malda, Manikchak and Englishbazar show considerable economic advancement because of high levels of literacy and education.

#### **(e) The Darbhanga**

Along with the Maithili Brahmins, several Muslim families had also migrated from the Dwarbhanga region of Bihar into Malda district, and are known today as the Darbhanga community. They presently live mainly in the Manikchak, Ratua, Englishbazar regions which are closest to Bihar and Jharkhand, with the villages of Chandipur, Rajnagar, Miagram, Enayetpur, Mohona, Lakshmanpur, Madhupur and Chandpur being their main areas of settlement. Because of their strong and distinctive physique, an opinion prevails that the Darbhanga are also descendants of the Pathan soldiery left behind by Shershah. Principally because of such physical characteristics, many Darbhanga males are presently employed by the military or para-military services. However, unlike the Maithili speech of the Maithils, the Darbhanga commonly use a local dialect or *Khotta* derived from a mixing of Magahi with Bengali. The other principal occupation of the Darbhanga, besides the services, is cultivation.

#### **(f) The Bind**

The Binds form another distinctive community group, presently populating the western part of Malda district, with their estimated number at around 11 thousand, according to the Malda District Gazetteer. Scholarly opinion describes the Bind as a formerly non-Aryan

community originating from Bihar which migrated eastwards during the days of ascendancy of Gaur. The Binds are a riverine community principally engaged in fishing, but now also engage in the cultivation of vegetables along the riverine tract for market sale. Because of their traditional vocation, they are mainly found in the villages of the Manikchak and Kaliachak region which border the Ganga, Pagla and Kalindri rivers, and also use the local Khotta dialect.

#### **(g) The Musahar**

The Musahars are another community of semi-aboriginal origin found in fairly significant numbers in Malda district, and are believed to have migrated into the district from the Santal Parganas. They are found today in the Chanchal, Ratua, Old Malda, Englishbazar and Manikchak regions, where they are mainly employed as soil-cutters or as wage labourers. Although they now observe the Hindu festivals of Saraswati Puja and Kali Puja and Dusserah,, and profess to be adherents of the Hindu sect that venerates Ramchandra, they still retain a distinctive cultural festival of their own called the *Bourparab*, which is observed during the Hindu winter month of Magh. During this festival various blood-sacrifices are offered, accompanied by widespread merrymaking.

#### **(h) The Malo**

The Malo community which is presently found in parts of Gajol, Old Malda and Ratua is another cultural group believed to have migrated into Malda from adjoining Bihar. In his Account of the District of Purnia, Buchanan Hamilton states that the original region of residence of this community was along the parts of Purnia that form the western banks of the Mahananda river, which was incorporated into the new district of Malda in 1813. Originally a fishing community because of their riverine situation, the Malo are believed to have gradually abandoned their ancestral occupation as they migrated to new parts of the district. Hence today, the members of this community are principally found to be engaged in cultivation, although the few that have retained their old vocations also prefer to be known specifically by the name Malo.

#### **(i) The Mahali**

The Mahali are another semi-aboriginal community who are believed to have migrated into Malda district about a century ago, from the Jharkhand and Chhotanagpur regions and other adjoining districts of Bengal. The original homeland of this community is in the Rajmahal Hills that lie across the Ganga from Malda district. Besides bamboo-crafts which were their traditional vocation, the Mahalis commonly acted as palanquin-bearers during weddings and other festivals, but with shrinkage in the demand for their original lines of work, have shifted to agricultural labour and other forms of daily wage-labour. They, however, retain their tribal identity quite strongly, and like the Santals are divided into several social subgroups comprising the Kuriang, Hansda, Dungri, Marari, Silli, Tirki, Kerkusa, Kerketta, Tapayer, etc. They also retain their tribal religion, comprising the worship of Dharambonga as their main deity and Arabonga as their home deity, and also venerate the Sun as a god. The principal festivals of the Mahali concern to the worship of Geram Thakur and Gugini Devi. Certain forms of their worship of Devi Manasa, Hari, Geram Thakur and Karam Thakur etc. resemble those of the Hindus. Some researchers have described the Mahali as one of the offshoot branches of the Santals. They are, however, more commonly known as the Munda Mahali, Oraon Mahali or Kol Mahali and still speak their original language, i.e. Mundari in addition to Bengali.

#### **(j) The Nagar, Dhanuk and Tiyar**

The presence of the Nagar, Dhanuk and Tiyar communities in Malda is once again related to the days of ascendancy of Gaur, when they are believed to have migrated from the adjacent regions in Purnea and Dinajpur. Today, these cultural groups are found in the Tal lowlands, where they still pursue their ancient vocations of fishing and boat-operation, in addition to agriculture. While the modes of dress and the ornaments worn by these communities resemble those of the residents of adjoining Bihar, they speak various dialects of their own in addition to Bengali. Syntactically, these dialects have considerable similarity with the dialect spoken by the Chain Mandal community.

## Chapter Annexes

**Annex 1:**  
**Principal Scheduled Caste Groups in Malda (Census 2001)**

SC Group	Malda Total SC	% of Total SC	Malda Male SC	Malda Female SC	SC FMR Ratio	% Rural SCs
All Scheduled Castes	554165	100	284726	269439	946	93.7
Rajbanshi	144158	26.0	73921	70237	950	96.2
Namasudra	101444	18.3	52284	49160	940	95.7
Bind	30303	5.5	15651	14652	936	97.8
Jhalo Malo	28165	5.1	14457	13708	948	97.9
Paliya	27636	5.0	14111	13525	958	94.7
Tiyar	26669	4.8	13701	12968	947	82.9
Chamar	21450	3.9	10966	10484	956	90.2
Hari	19357	3.5	9845	9512	966	97.4
Jalia Kaibartta	13411	2.4	6919	6492	938	91.7
Keot.	12529	2.3	6467	6062	937	98.0
Dhoba.	10951	2.0	5668	5283	932	90.9
Lohar	10587	1.9	5461	5126	939	83.1
Pod	10211	1.8	5229	4982	953	85.8
Nuniya	10170	1.8	5266	4904	931	84.5
Sunri (excluding Saha)	8564	1.5	4488	4076	908	90.2
Mallah	8096	1.5	4237	3859	911	93.6
Musahar	7617	1.4	3853	3764	977	99.5
Dosadh	7608	1.4	3971	3637	916	85.2
Gonhi	6187	1.1	3195	2992	936	96.2
Turi	5463	1.0	2787	2676	960	95.2
Koch	5224	0.9	2656	2568	967	96.3
Bhuiya	5093	0.9	2558	2535	991	98.7
Bhuimali	4860	0.9	2481	2379	959	91.9
Mal	3612	0.7	1863	1749	939	88.0
Dom	3229	0.6	1632	1597	979	95.0
Chaupal	3178	0.6	1651	1527	925	73.0
Mahar	2451	0.4	1233	1218	988	93.7
Bagdi	2305	0.4	1170	1135	970	95.6
Khaira	2212	0.4	1169	1043	892	75.4
Other Generic SCs	2002	0.4	1060	942	889	75.0
Rajwar	1815	0.3	899	916	1019	70.2
Patni	1674	0.3	841	833	990	73.1
Beldar	1224	0.2	615	609	990	80.7
Konwar	1068	0.2	567	501	884	78.3
Pasi	911	0.2	457	454	993	73.7
Konai	599	0.1	318	281	884	91.2
Bhogta	474	0.1	242	232	959	99.8
Bantar	464	0.1	241	223	925	99.6
Kaora	324	0.1	164	160	976	99.1
Bauri	284	0.1	144	140	972	91.5
Nat	123	0.02	60	63	1050	100.0
Kaur	112	0.02	58	54	931	84.8
Kami (Nepali)	55	0.01	26	29	1115	65.5
Kandra	54	0.01	27	27	1000	64.8
Kuriar	49	0.01	23	26	1130	71.4
Kadar	44	0.01	20	24	1200	77.3
Khatik	38	0.01	17	21	1235	73.7
Ghasi	35	0.01	17	18	1059	77.1
Bahelia	26	0.005	14	12	857	34.6
Damai (Nepali)	17	0.003	9	8	889	47.1
Kotal	13	0.002	7	6	857	38.5
Doai	7	0.001	3	4	1333	71.4
Dabgar	5	0.001	3	2	667	80.0
Halalkhor	4	0.001	1	3	3000	75.0
Sarki (Nepali)	3	0.001	2	1	500	33.3
Pan	1	0.000	1	0	0	0.0

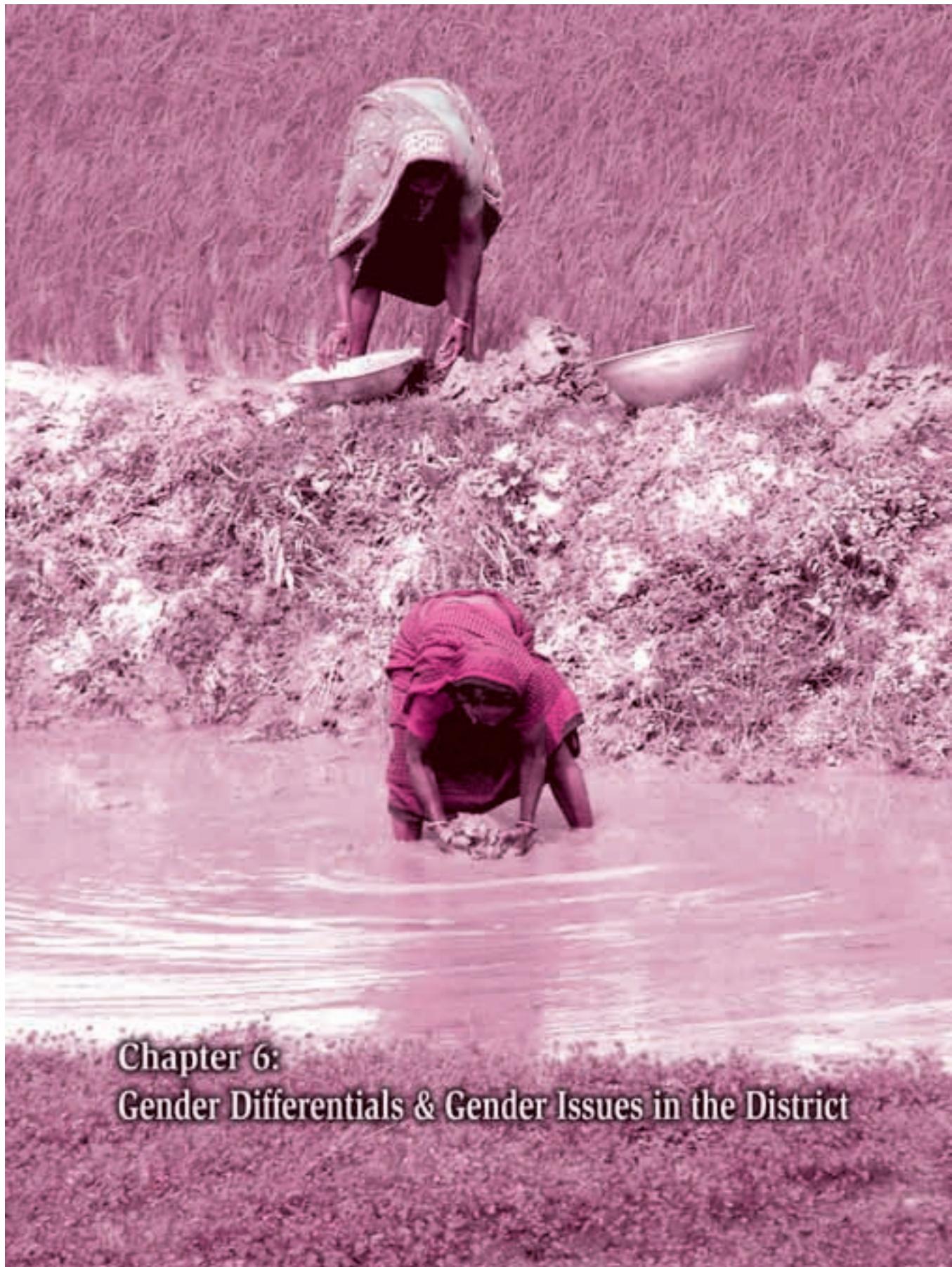
Source: Census 2001

**Annex 2:**  
**Principal Scheduled Tribe Groups in Malda**  
**Census 2001**

ST Group All Scheduled Tribes	Malda Total ST 227047	% of Total ST 100	Malda Male ST 113537	Malda Female ST 113510	ST FMR Ratio 1000	% Rural STs 99.0
Santal	146723	64.6	72710	74013	1018	99.2
Kisan	35747	15.7	18381	17366	945	99.9
Oraon	13125	5.8	6607	6518	987	98.6
Kharwar	8404	3.7	4334	4070	939	99.2
Kora	5998	2.6	2973	3025	1017	99.6
Munda	4901	2.2	2443	2458	1006	98.4
Mal Paharia	4199	1.8	2058	2141	1040	93.5
Mahali	2611	1.1	1297	1314	1013	98.4
Bedia	1298	0.6	668	630	943	100.0
Sauria Paharia	1201	0.5	626	575	919	92.7
Other Generic STs	992	0.4	506	486	960	69.8
Birhor	444	0.2	217	227	1046	100.0
Lohara	289	0.1	142	147	1035	93.1
Lodha	244	0.1	123	121	984	100.0
Gond	216	0.1	121	95	785	77.3
Savar	151	0.1	67	84	1254	100.0
Korwa	73	0.03	38	35	921	93.2
Bhumij	61	0.03	33	28	848	100.0
Karmali	55	0.02	26	29	1115	100.0
Mech	54	0.02	26	28	1077	79.6
Magh	37	0.02	19	18	947	24.3
Mahli	37	0.02	18	19	1056	100.0
Parhaiya	28	0.01	14	14	1000	100.0
Ho	23	0.01	15	8	533	95.7
Bhutia	23	0.01	15	8	533	39.1
Chik Baraik	22	0.01	15	7	467	100.0
Garo	20	0.01	11	9	818	100.0
Baiga	19	0.01	9	10	1111	100.0
Lepcha	16	0.01	5	11	2200	68.8
Chakma	14	0.01	9	5	556	92.9
Mru	10	0.004	5	5	1000	90.0
Hajang	5	0.002	1	4	4000	0.0
Rabha	3	0.001	3	0	0	66.7
Nagesia	2	0.001	1	1	1000	100.0
Chero	2	0.001	1	1	1000	100.0

Source: *Census 2001*





## Chapter 6: Gender Differentials & Gender Issues in the District



# Gender Differentials and Gender Issues

## Gender and Development in India

Gender equality is recognised as a key human development issue because of its intellectual proximity to the goals of universal human rights and social justice. In any development framework, where women constitute half the stock of human resources and also represent half of the human development potential, efforts to promote greater equality between women and men also become important means of contributing to overall human development within society. Intrinsic differences nevertheless distinguish gender development concepts apart from the concepts normally employed in mainstream development theory, because of the critical political and justice issues that are encountered in women's development. Unlike the purely economic content of mainstream development concepts, development for women also means the provision of equal opportunities and capabilities that enable them to assert their social and economic rights. The achievement of gender justice therefore means real improvement in the material and social conditions of women.

The social roles prescribed for Indian women for generations, which have kept them cloistered and confined within the four walls of their homes, have also kept them beyond the outreach of most development programmes. Various development indicators substantiate that women lag behind men in most of yardsticks that measure gender justice and human development, such as in gender ratios, patterns of school enrolment and dropout rates, morbidity patterns and age-specific death rates, etc. *Dalit* women particularly, belonging to socially and economically backward sections within the Indian population, face formidable problems in achieving development justice and progress. SC & ST women are routinely denied prescribed minimum wages and equal remuneration, since they are part of a subsistence economy where the family is the basic unit of production. Within subsistence frameworks, the participation of women in economic activities has generally been well accepted, which is the primary reason why work participation among rural women in India greatly surpasses the participation rates of women in urban society. Along with peasant cultivators, artisans

# Chapter 6

and others who provide menial services to the traditional village economy, rural women have traditionally played a distributive role in production and marketing. Wherever traditional economic frameworks prevail, Indian women continue to play such roles.

Nevertheless, a cause of recent concern in India has been the gradual decreasing participation rates of women in the Indian workforce. Several causes underlie this decline, among which are

- (a) growth of population and increasing wage competition between men and women
- (b) transformation of the traditional working-roles of women within modern urban society, as a consequence of which employment rates among educated urban women are considerably lower than those among illiterate rural women
- (c) the shifting of women from paid work to unpaid work-roles within the home, as male earnings expand

Thus three-fourths of all Indian women workers today are estimated to work as low-wage workers in the unorganised sector in extremely insecure labour conditions. Long hours of work and excessive workloads for little reward are their common lot. Working women in urban middle-class society are not released from their familial roles, no matter how prestigious or lucrative their job, since Indian society still asserts that the primary role of a woman is that of a homemaker. Statistical records and surveys show the majority of Indian women are engaged in unpaid work within the family.

More recent studies from India and many other countries of the global South reveal that the process of globalisation has severely impacted upon the incomes of the poor, which include a disproportionate number of women. Transformation of the traditional farm economy through shifts from foodcrops to cashcrops has drastically reduced the demand for women's employment in the farm sector. As agriculture progressively becomes more export oriented, rural women lose their control over productive resources and are thus perceived as dependents rather than as

independent producing agents. The shrinkage of the natural resource-base that supports the rural economy, because of overexploitation, adversely affects rural women in their home-making roles, forcing them to spend greater amounts of time and effort in fetching drinking water, livestock-fodder and fuel for their homes.

Despite the fact that the political empowerment of women has been on the policy agendas of governments in India for several years, the pace of progress has been slow and largely ineffectual. Even in West Bengal, with its strong tradition of rural decentralisation, devolution and empowerment, the participation of women in leadership roles in the political process is limited. While one-third reservation of all panchayat seats for women has increased their political representation, studies indicate that the role of such elected women representatives as development agents has been relatively minor because of the constraints of gender-bound rural society.

Meanwhile, the personal peril of women in a society where traditional cultural codes and values are rapidly breaking down are exemplified in national and state crime records which show alarming trends in crimes against women such as sexual crimes and harassment, trafficking for bonded work and prostitution, dowry harassment and murder, etc., as well as in the incidence of female foeticides. This breakdown of the social order coincides with a dominant situation where the economic and human rights of women are being rapidly eroded. To reverse such trends and to make a material change in women's situations, the National Policy for women's empowerment announced in 2001 seeks to achieve the following objectives:

- growing empowerment of Indian women in social, economic and political spheres
- elimination of all forms of discrimination and domestic or societal violence against women and girl children
- special emphasis on the building of entrepreneurial capacity of women
- formation of strategic partnerships with civil society for the furtherance of these aims.

Since the enunciation of the National Policy, several women-specific programmes that target gender development have been launched across the state and

the country. Formation of women's Self-Help Groups [SHGs] seeks to transform rural women in India into active development agents. Focused interventions of this kind that were launched in recent years have begun to show positive results. Their biggest potential lies in their ability to empower rural women to seize new opportunities and enhance their developmental roles.

## Current Gender Situations in Malda

Initial understanding of current gender situations in Malda district can be obtained through cross-comparison of standard gender ratios. It had been noted already that the district is still predominantly rural with over 30.49 lakh persons (more than 92 percent of the 2001 district population) residing in village areas. On the other hand, over 93 percent of the urban population that currently amounts to 2.41 lakh persons live in the twin cities of Old Malda and Englishbazar located opposite each other on the banks of the Mahananda. The two cities thus form the main urban complex of the district. Strong urbanisation trends were also noticed during the 2001 Census in the three contiguous roadside settlements of Kachupukur, Kendua and Aiho located in Habibpur block, which for the first time were given the non-statutory status of census towns. Since the roads stretching toward Farakka through Kaliachak and westward toward Manikchak informally extend the urban continuum of the Englishbazar township, new settlements and new urban constructions are also taking place rapidly along these road axes. Recent settlement of an urban character is also currently noticeable at the junction of two major arterial roads in Gajol. Nevertheless, till now, the municipal areas of Englishbazar and Old Malda are the only statutorily recognised towns in the district of Malda.

In terms of the Human Development Index [HDI] computed for the West Bengal Human Development Report [2004], the district of Malda ranked 17<sup>th</sup> out of 18 West Bengal districts. Gender differentials in the district were particularly high, as reflected in the Gender Development Index [GDI]. Strong indications of persisting gender deficits were also present in gender ratios, gender literacy rates, gender enrolment ratios and so on. Because of a combination of historical circumstances, the population of Malda contains a large

complement of backward and socially underprivileged communities comprising the Hindu SCs, tribal groups and Muslims. The cumulative population of these major community groups adds up to nearly three-fourths of the district's population. Low levels of human development and gender development in the district thus primarily reflect social backwardness within these communities.

Comparison of existing gender differentials between the SC, ST and general population of Malda district may initially be made in terms of female-male ratios [FMR or females per 1000 males]. FMR, which are the reciprocal of the *sex ratio* [males per 1000 females] commonly used in other countries of the world, are more suitable indicators of gender differentials in India

because of the commonly observed deficit in the female population in most parts of the country, in what has come to be known as the problem of 'Missing Women'. Similar female deficits are only endemically observed in a few other countries in South Asian region, and gender ratios through the rest of the world are more favourable towards women, based on the biological fact that since female infants are born innately stronger than infant boys, survival rates during infancy are better among females. Reversal of this biological position in India and certain other parts of South Asia indicates high differential rates of mortality among women and girl children, arising out of general neglect of the girl child and the social premium traditionally attached by society to the birth of sons, or 'son-preference'.

### Census 2001

CD Block	General CFMR [0-6yrs]	General FMR	General FMR Deficit	SC CFMR [0-6yrs]	SC FMR	SC FMR Deficit	ST CFMR [0-6yrs]	ST FMR	ST FMR Deficit
Harischandrapur 1	934	954	20	928	950	22	1032	980	-52
Harischandrapur 2	948	940	-8	964	927	-37	944	970	26
Chanchal 1	985	953	-32	987	966	-21	833	966	133
Chanchal 2	970	962	-8	986	996	10	1053	989	-64
Ratua 1	977	934	-43	1006	937	-69	910	948	38
Ratua 2	983	955	-28	1020	962	-58	1178	1016	-162
Gajol	980	961	-19	974	946	-28	1009	1017	8
Bamangola	969	950	-19	958	934	-24	988	1009	21
Habibpur	989	976	-13	988	964	-24	984	1028	44
Old Malda	952	942	-10	927	943	16	1012	1010	-2
Englishbazar	969	943	-26	938	921	-17	1080	996	-84
Manikchak	947	939	-8	998	931	-67	893	934	41
Kaliachak 1	960	943	-17	914	922	8	875	845	-30
Kaliachak 2	962	941	-21	996	935	-61	-	300	300
Kaliachak 3	956	936	-20	915	934	19	1119	891	-228
Malda DT	964	948	-16	966	946	-20	985	1000	15

Source: Census 2001

Child FMRs [CFMR] in the age-group 0-6 years for different blocks are compared to FMRs in the aggregate population in the table above, for different community groups in Malda district. The FMRs for the general district population show that the 'missing women' phenomenon exists in all blocks within the district. While the general FMR is 948 for the district population as a whole, it descends to as low a ratio value as 934 in Ratua 1 and 936 in Kaliachak 3. Conversely, the general FMR ratio touches high values of 976 in ST-dominated

Habibpur, 962 in Chanchal 1 and 961 in Gajol. Considerable variation in the level of female deficits evidently exists between different blocks of the district. Besides factors like differential gender mortality and female survival, however, gender ratios are also generally influenced by the patterns of migration. The migration of many more single males into urban areas for instance gives most urban settlements a very low FMR, sometimes even lower than 800. Thus in Malda, blocks like Kaliachak 1, 2 & 3, which are known to

have received substantial migration show low FMRs in the range 936-943, well below the average of 948 for the district as a whole. Higher rates of outward migration by males in certain blocks, on the other hand, tend to raise FMR ratios.

In addition to FMR ratios for the aggregate block population, the table includes the corresponding CFMRs for children in the age-group 0-6 years, which represent gender proportions among very young children. Since such children are more likely to have been born where they currently reside, these CFMRs are therefore relatively unaffected by migration factors. Disparities between CFMR and general FMR across the Malda blocks thus reflect the combined impact of differential gender mortality and inward or outward migration. Very high levels of attrition between CFMR and FMR point towards blocks where gender mortality deficits and male in-migration trends have been particularly strong. In Malda, such deficits have been highest in Ratua 1 where the attrition between CFMR and FMR amounts to -43. Nine other blocks also show FMR attrition levels higher than the district average of -16, most of which are located either in the Tal or Diara regions. In the Barind blocks on the whole, attrition between CFMR and general FMR is more moderate.

For children in the age-group 0-6 years, CFMRs are marginally better for the SC population at 966, compared to 964 for the aggregate district population, and improve considerably to 985 for the ST population. However, as the attrition patterns between SC-CFMR and SC-FMR show, female deficits are higher among the SC communities than among the aggregate district population pointing towards higher differentials in gender mortality within the SC community-group. Since the converse is true for ST communities, and female-male ratios for the ST population in fact improve from the 0-6 year age-group to the ST population over all age-groups, female survival rates are obviously better within the ST groups. Consequently, the ST-FMR for all age-groups improves from 985 to 1000. However, as seen previously (see chapter 5), the ST population is not distributed evenly across all Malda blocks. Thus blocks

where the presence of ST communities is minimal and the presence of SC and other non-ST communities – including Muslims – is high show greater female deficits in their population, both because of gender mortality differentials as well as other subsidiary factors like male migration. On the other hand, in ST-dominated blocks, there is also a tendency for male out-migration, which has a subsidiary impact on improving FMR. In regional terms therefore, female deficits are higher on the whole in the Tal and Diara blocks of Malda district, and lower in the Barind blocks.

As the table below shows, female-male ratios have tended to improve between 1991-2001 in Malda district, as also in the state of West Bengal and in India. The degree of improvement is substantial in West Bengal as a whole from a level below the national average of 927 in 1991 to a level that exceeds the national average of 933 in 2001. However, although the district FMR in Malda exceeded the FMR for the state both in 1991 and 2001, the rate of FMR improvement over this period is slower than it has been for West Bengal as a whole.

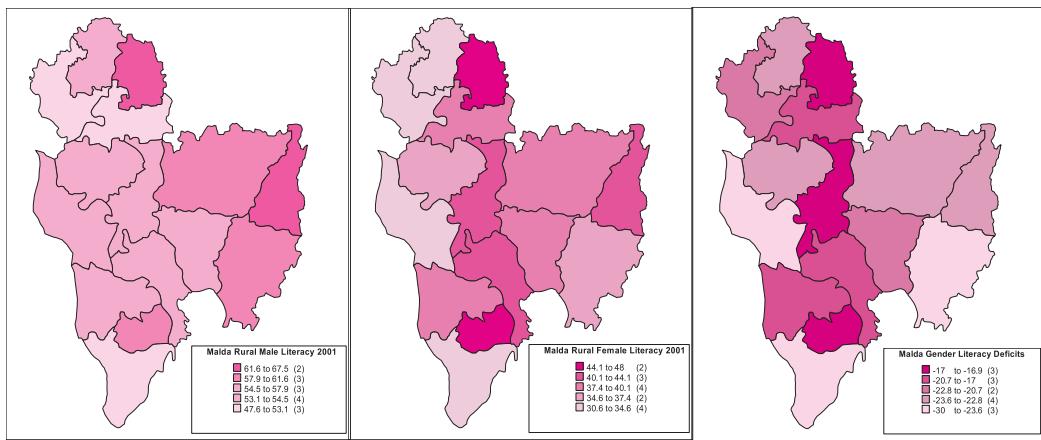
**Table: Comparative Trends in Female-Male Ratios 1991-2001**

**Malda District, West Bengal & India**

Area Unit	Census 1991	Census 2001	Decadal Change 1991-2001
India	927	933	+6/1000
West Bengal	917	934	+17/1000
Malda DT	938	948	+10/1000

Source: Census 1991 & 2001

Demographic change in West Bengal since 1951 has also been strongly influenced by migration – particularly the in-migration of males. Thus the West Bengal trends in the table imply that decline in gender deficits and FMR improvement in the state has come about because of the partial abatement of migration pressure, as well as improved female survival. Since the latter trend has been weaker in Malda district, the gender gaps in the district are likely to persist for some time to come.



## Gender Gaps in Literacy

Since educational attainment reflect the nature and quality of human capital formation within society, persisting gender gaps in terms of education and literacy in Malda district point to drawbacks within the development process that have a disproportionate impact on women. The position of Malda district both

in terms of general education and literacy has also been dissatisfactory. Large gender gaps also exist therefore in rural and urban literacy, literacy among the SC & ST communities and in educational enrolments. The table below compares relative literacy positions between Malda district, the state of West Bengal and India in the year 2001.

**Table: Comparative Gender Literacy Positions in Malda, West Bengal & India 2001**

Area Unit	Total Literacy [%]	Male Literacy [%]	Rank within State	Female Literacy [%]	Rank within State	Gender Literacy Gap [%]
India	65.4	75.9		54.2		21.7
West Bengal	69.2	77.6		60.2		17.4
Malda DT	50.7	59.7	18	41.7	16	18.1

Source: Census 2001

Although literacy levels for both males and females in West Bengal exceed the national averages of 75.9 percent and 54.2 percent, male and female literacy rates in Malda district are among the lowest in West Bengal. Consequently, literacy levels in Malda fall considerably behind the national levels for both males and females as well as for the aggregate district population. Nevertheless, since the gender gap in

literacy in the district is narrower than the national gender literacy gap of 21.7 percentage points, this indicates that literacy rates are also low for males and both genders are similarly deprived. However, literacy rates among both males and females are much higher in the urban areas of Englishbazar and Old Malda, leading to lower gender-gaps in urban literacy rates as seen below.

**Table: Gender Literacy Differentials in Malda District 1991 & 2001**

### *Urban versus Rural Areas*

	1991 Male Literacy [%]	1991 Female Literacy [%]	1991 Total Literacy [%]	2001 Male Literacy [%]	2001 Female Literacy [%]	2001 Total Literacy [%]	Gender Gap in Literacy 1991 [%]	Gender Gap in Literacy 2001 [%]
Urban Areas	79.81	65.83	72.11	84.65	73.99	79.47	14.98	10.66
Rural Areas	46.42	29.57	38.28	61.40	48.33	55.06	16.85	13.07

Source: Census 1991 & 2001

Even among the slum population, male and female literacy rates are much higher than in rural areas, as seen below for Englishbazar municipality. Gender literacy gaps are however wider for the slum population than for the general municipal population. Since, in the fast-growing city of Englishbazar, the slum

population includes a sizeable section of persons who have migrated recently from adjoining rural areas of the district, this also indicates that these migrants who shift to the city for work are drawn from the more literate sections among rural men and women.

**Table:: Literacy among the Slum Population of Englishbazar Municipality 2001**

Urban Literacy	Literacy among Urban Population residing in Slums [%]	Literacy among Urban Males residing in Slums [%]	Literacy among Urban Females residing in Slums [%]	Gender Gap in Literacy among Slum Population [%]
84.65	72.57	78.93	65.74	13.19

Source: Census 2001

From the foregoing tables, it is also clear that the overall backwardness of Malda district in terms of literacy achievements and gender literacy gaps is associated with the predominantly rural character of the district and the economic backwardness of its population. As indicated by the associated series of maps, the spread of literacy across the district has been more consistent for males than it has been for females. Thus the Muslim-dominated blocks lying along the western periphery of the district generally show low levels of female literacy, even though only Harischandrapur 2 and Kaliachak 3 also show low

corresponding levels of literacy in the case of males. Thus the gender gaps in literacy are widest across this region, in addition to Habibpur block in the Barind. Conversely, the more developed blocks that form the central region of the district show lower literacy differentials between males and females.

Comparison of blockwise rates of male and female literacy in the district in the next table shows that certain rural regions of Malda have literacy rates well below the average for the district, and thus lag considerably behind the state and national averages.

**Table : Gender Differentials in Literacy in Malda Blocks 2001**

	% Male Literacy [%]	Rank in District	% Female Literacy [%]	Gender Rank in District	Gap in Literacy [%]	Rank in District
Harischandrapur 1	53.6	12	35.0	12	18.6	7
Harischandrapur 2	47.9	15	33.4	13	14.5	13
Chanchal 1	64.4	2	48.3	1	16.1	10
Chanchal 2	51.7	13	37.7	9	14.0	14
Ratua 1	53.7	11	36.7	11	17.0	8
Ratua 2	55.1	9	41.3	5	13.8	15
Gajol	62.4	3	40.7	6	21.7	4
Bamangola	68.2	1	44.5	3	23.7	2
Habibpur	60.5	5	36.9	10	23.6	3
Old Malda	57.2	7	38.5	7	18.7	6
Englishbazar	58.6	6	43.3	4	15.3	11
Manikchak	56.0	8	32.1	14	23.9	1
Kaliachak 1	62.2	4	47.2	2	15.0	12
Kaliachak 2	54.4	10	38.2	8	16.2	9
Kaliachak 3	51.1	14	31.1	15	20.0	5
<b>Malda DT</b>	<b>58.8</b>		<b>41.3</b>		<b>17.5</b>	

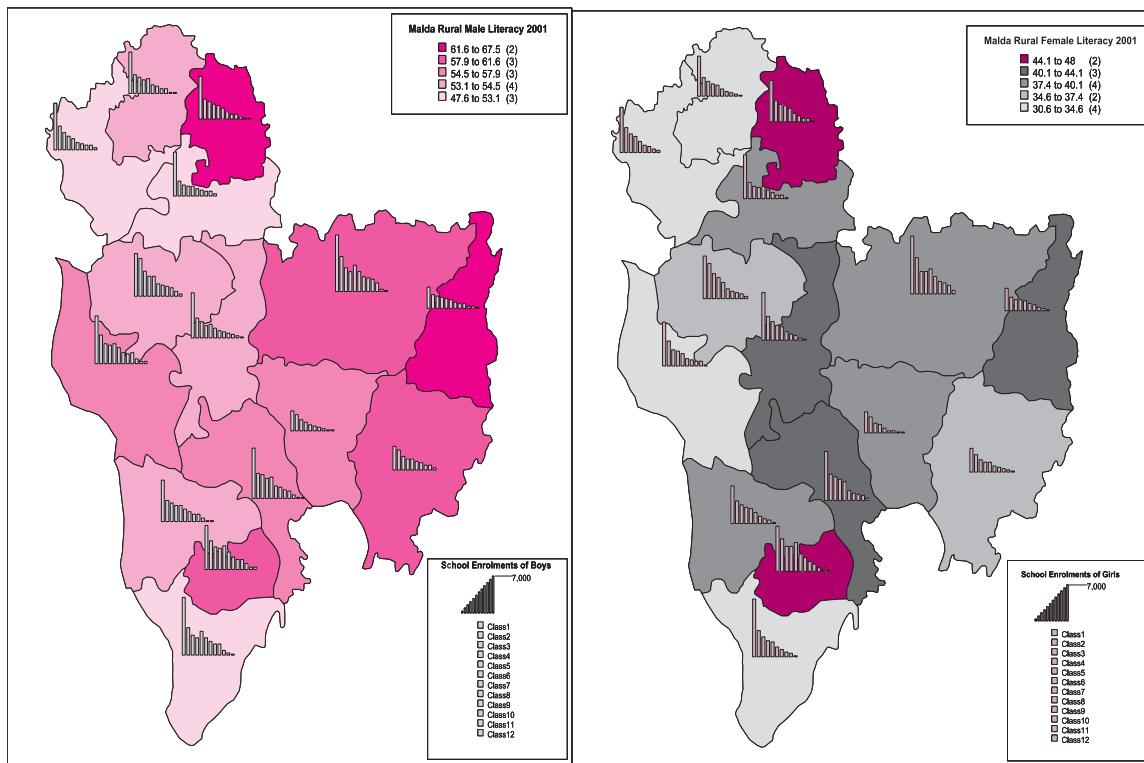
Source: Census 2001

In terms of male literacy rates, Harischandrapur 2 block in the Tal region ranks lowest among the Malda blocks, with a rural male literacy rate of only 47.9 percent. However, the lowest literacy levels among rural females are found in Kaliachak 3 block in the Diara, where female literacy rates are only 31.1 percent. Both these blocks have a high Muslim concentration exceeding 60 percent of the block population. Hence such low literacy levels among males and females appear to be a cultural characteristic of the Muslim community in Malda. Bamangola block which ranks highest in terms of rural male literacy rates stands in the third position in terms of female literacy, and is thus outranked by Chanchal 1 and Kaliachak 1. Interestingly, in comparison to the Barind, the Tal and Diara blocks reveal extreme contrasts between high and low rural literacy achievements. On the other hand, gender gaps in literacy, which reach a maximum of 23.9 percentage points in Manikchak block, are also high in the Barind but are of a lower order in most Tal and Diara blocks. The gender literacy gap is lowest in Ratua 2, which ranks 9<sup>th</sup> among the Malda blocks in terms of rural male literacy and 5<sup>th</sup> in terms of rural female literacy rates. Thus in general, gender gaps in literacy are higher in the Barind blocks where the population is predominantly composed of the ST and Hindu SC communities. Since both male and female literacy rates are generally low in the largely Muslim blocks of the Tal and Diara, the literacy gaps between rural males and females are accordingly lower. Rather than conservative community values therefore, literacy deprivation among women in Malda district appears to be largely based on the lack of adequate educational infrastructure. In the Barind where the school infrastructure is sparse, this acts as a detriment to girls' education. In the densely-settled Tal and Diara, infrastructural inadequacies lead to low

educational achievement among both rural boys and girls.

## Gender Gaps in Enrolment

A common characteristic of the development process noted in rural studies in many parts of India is that the males in rural society are better placed to leverage the new opportunities created by development. Because of the premium placed on the primacy of males in a patriarchal society, this applies equally to human development *per se*, as well as to purely economic opportunities, leading to the widening of gender differentials between men and women. Because of the eventual impact it has in improving the skills and potential earning abilities of its recipients, school education is among the most important constituents of the human development process. However, the spread of school education across genders is generally uneven because of the stereotypical attitudes that characterise patriarchal society, and little importance is attached in the early stages of the human development process to the education of girls. The resulting gender differentials in school education generally show up in two forms – i.e., lower *enrolment* of girls overall, and higher rates of educational *dropout* from the school system for girls at every stage. As the maps below show, the magnitudes of Classes 1-12 school enrolment in Malda district are strongly consistent with blockwise levels of literacy. However, blocks with low literacy show much higher levels of school dropout among children subsequent to their initial enrolment at the Class 1 stage. Both in terms of initial enrolments and accelerated dropouts, overall attainment of school education is much lower among girls.



The associated family of bar-charts plots genderwise school enrolment figures between Classes 1-12 from the 7<sup>th</sup> All-India School Education Survey, for each of the 15 Malda blocks and for the two municipalities of Old Malda and Englishbazar (see bar-charts at the bottom left). The bar-chart at the bottom right depicts the corresponding enrolment of boys and girls at different educational levels for Malda district as a whole. The large-scale expansion of primary education in Malda district is clearly reflected in the blockwise charts. However, while educational dropout at the higher educational stages is thus seen to be a common characteristic in all Malda blocks, the scale of dropouts among rural girls is much more severe than among boys. Conversely, because of the limitations within the rural infrastructure for upper-primary and post-primary education which compel high dropouts, urban schools in Englishbazar and Old Malda municipalities draw in a sizeable number of rural students at the post-primary stage, most of whom are boys. Thus the level of educational achievements among rural girls in the district are constrained both by the inadequacy of the rural school infrastructure as well as by the unwillingness or inability of rural parents to send their girl children to schools located at greater distances. The combined operation of both educational constraints

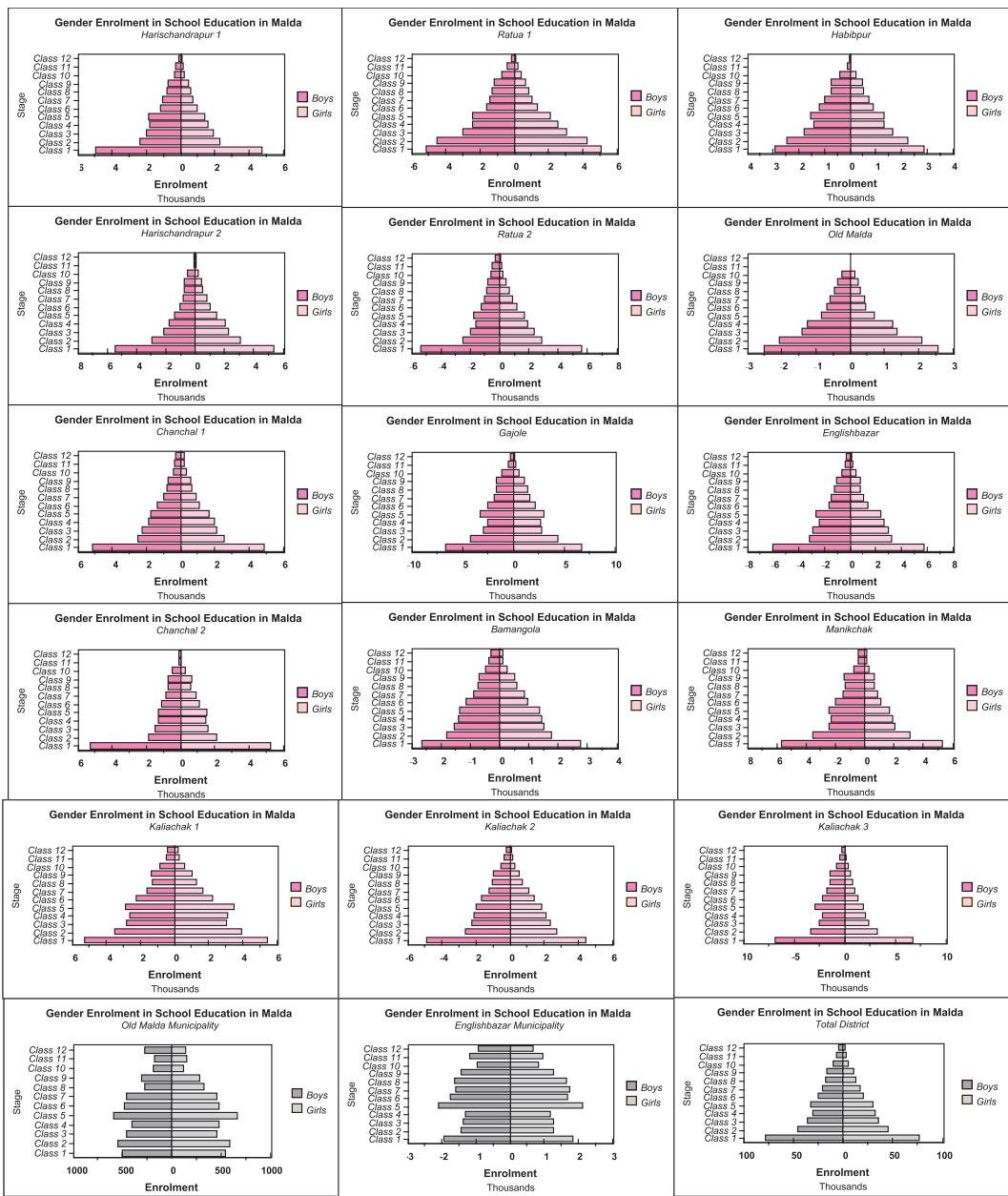
leads to gender-based educational deprivation, which discriminates against the rural female population in all regions of the district.

Urban students in the district are better placed compared to rural students, both in terms of overall educational attainment as well as in gender terms. Since the expansion in enrolments at the post-Class 4 stage at urban schools in the Englishbazar and Old Malda municipal areas occurs for both girls and boys, this implies that girls students from rural fringe areas surrounding these cities benefit consistently from the better school infrastructure that exists in adjoining urban areas. However, a considerable decrease in enrolment occurs beyond the middle-school stage, with enrolment rates of girls decreasing much more sharply than they do among boys. Importantly, since many girl students in the district drop out of the educational stream by the time they reach their mid-teens, the spread of basic school education has been unable to delay their usual age at marriage, which averages between 13-16 years in the district as a whole. To this is tied the whole phenomenon of early marriage, early fertility, high infant and maternal mortality and poor family health that characterises the district.

A very large number of girls in Malda district do not

complete their education, and are thus unable to avail equally the expanded earning opportunities that education eventually provides. Although they become literate because of their exposure to education, their literacy has no visible impact on their economic future.

Consequently, the social norms that restrict girls' education in rural areas do not undergo change, and a far larger number of rural girls are denied access to education in any form and remain illiterate all their lives.



A survey-study of 300 sample respondents in different areas of the district conducted by a team from Malda Women's College for the *District Human Development Report* (see details below) sought to ascertain the particular reasons for the educational dropout of girls. In virtually all regional locations where the study was carried out, girl respondents stated that parental preferences

concerning the education of sons was the principal reason that led to the educational dropout of girls from families that were currently facing economic and domestic hardships. One respondent, from Rangamatia village under Bhabuk GP in Old Malda block, had earnestly wanted to continue her education beyond the Class 4 stage and had also enlisted the support of her

mother. However, her father declared she would have to discontinue studies because of the straitened financial circumstances of the family, even though he was prepared to support the education of her brother despite the latter's disinclination for study. Situations very similar to this exist in most poor rural families in Malda district, where the education of girl children beyond the primary stage is viewed as an unaffordable personal luxury that must be foregone to further the education of boys. Many respondents – including women – even questioned the necessity of educating girls beyond the primary stage.

## Work Participation among Women

Women contribute to economic activity in several ways. As home-makers and mothers who provide unremunerated services towards caring for their family, they contribute indirectly to the work productivity of family earners. Additionally, they contribute directly to production by participating personally in the work process as *paid* labour, or by supporting and supplementing the direct work contributions of family earners through additional *unpaid* labour. In practice, only the second category of paid labour services enters the national accounts as 'income received' against work. Particularly in rural areas areas however, where agricultural or artisanal activity is carried out collectively by family labour, women contribute considerable amounts of unpaid labour towards tending livestock and crops and also to crop harvesting and post-harvest activities. While not classified as activities that generate personal income, the unpaid labour contributions of women enter the practical definition of work and any woman so engaged is notionally a worker. However, since her work contributions do not result in direct income for her, she is not classified as a worker under the Census. Thus a woman *marginal* worker under Census definitions will have secured less than six months of paid work in the year immediately preceding the Census, while a woman *main* worker will have secured more than this quantum of paid work. In general, because of their gender-typical roles as carers and home-makers, many women do not enter the Census definition of 'workers' at all. Of those that do, many perform marginal rather than main work, because they continually have to balance family commitments against livelihood

opportunities. Under such rigid definitions, many women are therefore perceived as being unproductive and idle, since their participation in paid work is much lower than that of their male counterparts. Among the more affluent sections of society that reside in urban areas, the economic pressure on women to go out and seek paid work is much less. Therefore their participation in paid labour activity is much less than that of poorer women who reside in rural areas.

Work participation rates [WPRs] – defined as the proportion of women or men who are economically active, compared to their total number within the population - are nevertheless commonly used as a measure of the economic roles of women in society. Since much of the work they do is unpaid, WPRs of women in India are generally low compared to male WPRs in both rural and urban areas. Over time, there has been some increase in rural WPRs for women, mainly because of their increasing participation in irregular or marginal work. As seen in the table below, this is true also for Malda district, where the female WPR in the aggregate is only around 22 percent, against a male WPR of around 78 percent. The gender gap in work participation is therefore immense. Nevertheless, since the economic pressure to participate in paid work is higher among women in poorer social groups such as the SC and ST communities, female WPRs in their case tend to increase. Male WPRs in the SC and ST communities, conversely, are lower than male WPRs in the aggregate population, because these communities are predominantly poor and rural and their men accordingly have less access to the work opportunities available to the urban population. As a joint consequence of this, the gender gap in work participation is lower for the SC and ST communities.

**Table : Gender Differentials in Work Participation Rates in Malda 2001**

Social Categories	WPR for Men [%]	WPR for Women [%]	Gender Gap in WPR [% points]
General	78.03	21.68	56.35
SC	66.43	33.57	32.86
ST	55.84	44.15	11.69

*Source: Census 2001*

The regional characteristics of rural work participation by men and women in Malda district are delineated in

the blockwise tables below. Because of the dominating presence of men engaged in main work, the gender differential in the main workforce is overwhelmingly weighted in favour of men, except in the three blocks of the densely-populated Kaliachak region where women's WPRs in main work rise considerably. Conversely, since most women workers in the district are engaged in marginal work, the WPRs for marginal workers are strongly weighted in favour of women. Overall, this would indicate that while many rural women in the district participate actively in economic

work, the work opportunities available to them are still of a casual nature and do not offer them employment around the year. Consequently, many more women have to participate in marginal work. Even in the Kaliachak region where many women are able to secure main work because of the proliferation of home-based economic activities such as *biri* binding and sericulture, there are still many more women who can only secure marginal work opportunities because of the pressure of population on the avenues for non-agricultural work.

**Table: Gender Work Participation in Malda District 2001**

**MAIN WORKFORCE**

CD Block	Total Main Workers	Male Main Workers	Female Main Workers	Men in Main Workforce [%]	Women in Main Workforce [%]	Gender Differential in Main WPR [%]
Harischandrapur 1	41067	37025	4042	90.2	9.8	-80.3
Harischandrapur 2	49767	43572	6195	87.6	12.4	-75.1
Chanchal 1	47906	42766	5140	89.3	10.7	-78.5
Chanchal 2	43258	37076	6182	85.7	14.3	-71.4
Ratua 1	50798	45779	5019	90.1	9.9	-80.2
Ratua 2	42654	36435	6219	85.4	14.6	-70.8
Gajol	83695	70640	16055	84.4	19.2	-65.2
Bamangola	37490	31065	6425	82.9	17.1	-65.7
Habibpur	62372	45525	16847	73.0	27.0	-46.0
Old Malda	40893	32641	8252	79.8	20.2	-59.6
Englishbazar	61630	51798	9832	84.0	16.0	-68.1
Manikchak	52411	42737	9674	81.5	18.5	-63.1
Kaliachak 1	125488	72856	52632	58.1	41.9	-16.1
Kaliachak 2	65456	46882	18574	71.6	28.4	-43.2
Kaliachak 3	93580	61867	31713	66.1	33.9	-32.2

**MARGINAL WORKFORCE**

CD Block	Total Marginal Workers	Male Marginal Workers	Female Marginal Workers	Men in Marginal Workforce [%]	Women in Marginal Workforce [%]	Gender Differential in Marginal WPR [%]
Harischandrapur 1	11325	4429	6896	39.1	60.9	21.8
Harischandrapur 2	33095	9762	23333	29.5	70.5	41.0
Chanchal 1	13693	5579	8114	40.7	59.3	18.5
Chanchal 2	21326	7321	14005	34.3	65.7	31.3
Ratua 1	23741	10499	13242	44.2	55.8	11.6
Ratua 2	16586	5923	10663	35.7	64.3	28.6
Gajol	35679	11158	24521	31.3	68.7	37.5
Bamangola	14721	4852	9869	33.0	67.0	34.1
Habibpur	25731	7712	18019	30.0	70.0	40.1
Old Malda	11562	4562	7000	39.5	60.5	21.1
Englishbazar	14338	6313	8025	44.0	56.0	11.9
Manikchak	27380	11303	16077	41.3	58.7	17.4
Kaliachak 1	54797	21523	33274	39.3	60.7	21.4
Kaliachak 2	25689	7719	17970	30.0	70.0	39.9

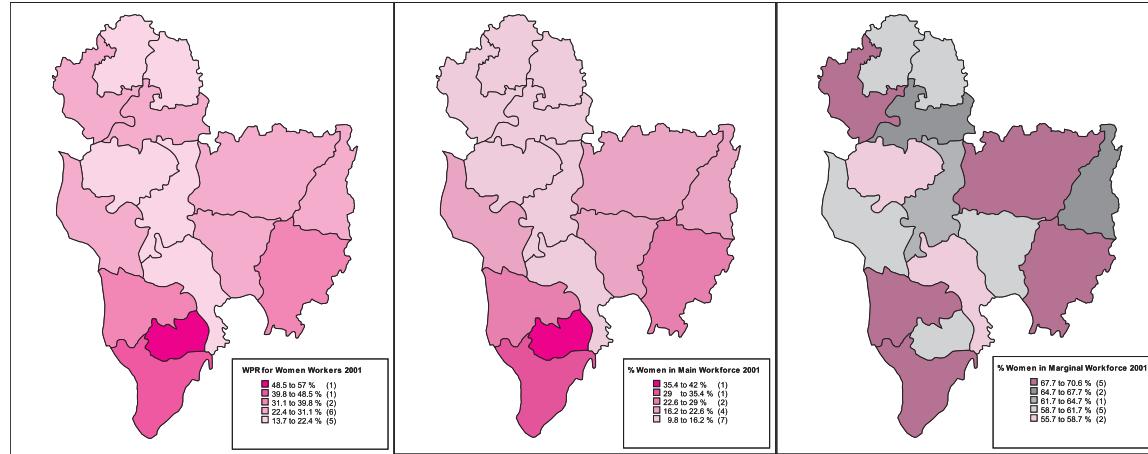
Source: Census 2001

Of the Malda blocks, Kaliachak 1 block offers the highest access to work opportunities and has by far the largest main workforce of over 1.25 lakh workers from both genders. Despite the fact that there are more than 72 thousand male men workers in the block, the male WPR for main work is much lower than in any other Malda block, at only 58.1 percent. Among women main workers however, the female WPR is 41.9 percent, by far the highest in any of the Malda blocks. In most other blocks of the Tal and Barind, male WPR is generally high but is accompanied by low WPRs for female main workers, implying that most available opportunities for main work are taken up by men. Women's WPRs for main work reach low levels of under 10 percent in Harischandrapur 1 and Ratua 1; thus the gender differentials in main work participation are also highest in these two blocks. It had been noted earlier, with reference to general economic conditions in the three densely populated blocks of the Kaliachak region, that economic livelihoods there are highly diversified with a large part of the resident population deriving its living outside the agricultural sector. Evidently, the primacy of non-agricultural wage-employment opportunities there also leads to high work participation among rural women. This feature is

missing in the other blocks of Malda, where rural livelihoods are still sustained primarily by agriculture which offers limited main work opportunities to rural women. Since women's work in agricultural families is largely unpaid, it does not enter the Census definitions of main work.

The situation alters quite dramatically in the case of marginal work. Women, at the very least, constitute well over half of the marginal workforce in all Malda blocks, their WPR rising to a high of over 70 percent in Harischandrapur 2, Habibpur and Kaliachak 2. Male WPRs in marginal work, in comparison, are relatively low at between 29-44 percent in all Malda blocks. This implies that the combination of economic and population pressures that compel the members of rural families to seek economic work are felt in equal measure by both men and women. However, for rural women, the opportunities for engaging in main work are strongly limited by the large presence of male workers seeking out opportunities for economic work. Consequently, many rural women are only able to work in a marginal capacity, and remain unemployed for the greater part of the year – except perhaps in the Kaliachak region, where the bulk of rural livelihoods are sourced outside the agricultural sector.

**Chart: Women's WPR & Presence in Main & Marginal Workforce in Malda District 2001**



Since differentials do exist between the work participation patterns of women from different community groups in Malda district, as described in the preceding chapter, the regional variations in WPR within the district may also be partially ascribed to such factors. Landlessness, for instance, is high among

the Muslim groups who form the majority community in the heavily-populated Diara region. Women from this community are therefore more inclined to seek wage-work outside the agricultural sector, which reflects favourably in the high WPRs for female main and marginal workers in the Kaliachak blocks. The SC

groups found in the Tal region are either landless or have minor holdings of land that are insufficient to provide them with year-round work. Thus a large section of SC women also participate seasonally in agricultural wage-work, raising the marginal WPR in this region. On the other hand, the ST groups who are found primarily in the Barind have large holdings of land. Women from ST families therefore work largely on their family farm as unpaid family-workers. Although WPRs among women main workers are therefore inevitably low in the Barind, more of them engage in marginal wage-work because of the relatively high levels of poverty that are characteristic of the ST community. This reflects in the WPR patterns seen in the Barind blocks.

The survey conducted for the DHDR also revealed that a large number of women who work within the farm sector as marginal agricultural labourers face discriminatory wages and other forms of economic exploitation. Although gender discrimination is less in non-agricultural activities such as *biri* binding, which provide specialised home-based employment to a large number of women in the Diara blocks, the piece-rated work imposes considerable physical stress on them since it is performed for long hours, after they have fulfilled all domestic chores. Consequently, they are left with little time for leisure, which impairs the health of pregnant women and also younger girls. All rural women who work – whether in a paid or unpaid capacity - also have to bear the full burden of domestic work, and consequently much longer hours than their male counterparts. ST women additionally have to bear the full responsibility of supporting their family, because of frequent alcohol addiction among their husbands which is tolerated by tradition in tribal society.

## Empowering Women

Empowerment has been defined by Amartya Sen and others as the process by which the powerless gain greater control over the circumstances of their lives. Paid

employment of women, particularly outside their traditional work-spheres, is potentially empowering since it endows women with financial independence and alternative social identities, also exposing them to power structures that are independent of their kin network. As women's earnings begin to supplement and support family expenditures, working women also acquire greater access and control over resources. This was borne out by the results of the DHDR survey, which also revealed that working women in the rural areas of Malda district participate more effectively in intra household decision-making. However, since the normal working opportunities for rural women are rather limited in a densely populated district like Malda, new empowerment strategies based on activities like entrepreneurship which depend on the women's own agency have a greater potential for success.

One such initiative that has sought to empower poor rural women in Malda by applying this strategy is the Self-Help Group [SHG] programme, which was initiated by the Panchayats & Rural Development Department under Swarna Jayanti Swarojgar Yojana (SGSY) in 1999. However, the programme, coordinated by the District Rural Development Cell (DRDC) of the Zilla Parishad (erstwhile DRDA), picked up only recently. More than eleven thousand SGSY groups with membership strength of more than one lakh have so far been formed in different blocks of the district. Most of the groups, nearly nine thousand are women groups with an average membership of 10 per group. In terms of group consolidation, the groups are in different stages of formation. Nearly eighty percent of the groups have crossed the first grading whereas when it comes to the second grading, performance dips down to less than twelve percent. In credit linkage no major headway could be made as yet. In terms of number of groups formed, Gajol is way ahead with 1878 groups, followed by Kaliachak 3, Harischandrapur 2, Englishbazar and Old Malda blocks.

**Table : Growth of SGSY Groups in Malda District**

CD Block	No. of SHGs formed	No. of Women SHGs formed	No. of SHGs passed Grade-I	No. of SHGs passed Grade-II
Harischandrapur 1	641	567	337	19
Harischandrapur 2	831	593	581	23
Chanchal 1	684	498	575	54
Chanchal 2	823	710	670	75
Ratua 1	682	575	572	102
Ratua 2	603	537	488	24
Gajol	1878	1158	1475	474
Bamangola	434	393	302	40
Habibpur	585	573	454	88
Old Malda	800	671	610	59
Englishbazar	805	796	668	158
Manikchak	313	212	239	24
Kaliachak 1	701	511	526	52
Kaliachak 2	719	516	554	63
Kaliachak 3	982	614	684	101
<b>Total</b>	<b>11481</b>	<b>8924</b>	<b>8735</b>	<b>1356</b>

Source: DRDC, Malda Zilla Parishad

SHG facilitation by the Cooperative Banks commenced relatively recently in the district. A total of 6503 SHGs have been formed under the leadership of the District Cooperative Bank, with over 55 thousand women members – each SHG thus enlisting between 4–5 women members on the average. As the table below indicates, the response of rural women to this programme has been enthusiastic in most blocks of Malda, with the most notable impact being felt in the four Barind blocks. The response in Kaliachak 1 and Kaliachak 3 blocks has however been limited so far,

probably because more rural women there are already engaged in paid work. Loan off-take by women through the SHG system, however, shows a greater degree of variability across the blocks. In most blocks, with the exception of Gajol, the average loan amounts are relatively minor, showing that most SHGs there are still at the formative stage. Since entrepreneurial activities do not enter the normal work-sphere of women in rural areas, the SHG programme requires further nurture in the district, if it is to yield tangible results in future that improve the empowerment status of women in Malda.

**Table : Growth of SGSY Groups in Malda District**

CD Block	Total SHGs as on 31.12.05	New SHGs in 2006	Women SHG Members	Loans to Women Members [Rs. lakh]
Harischandrapur 1	181	226	1415	4.3
Harischandrapur 2	192	255	1961	3.19
Chanchal 1	103	194	1550	1.69
Chanchal 2	128	181	1779	0.30
Ratua 1	116	123	999	0.63
Ratua 2	132	139	1113	0.11
Gajol	1519	1794	15064	325.9
Bamangola	677	914	7993	27.89
Habibpur	880	1084	9529	43.84
Old Malda	281	422	4428	3.42
Englishbazar	242	272	2560	0.00
Manikchak	244	336	2719	3.0
Kaliachak 1	33	24	187	0.00
Kaliachak 2	313	463	3877	3.95
Kaliachak 3	25	76	632	0.005
<b>Malda DT</b>	<b>5066</b>	<b>6503</b>	<b>55806</b>	<b>418.225</b>

Source: District Cooperative Bank, Malda

## Crimes Against Women

Malda is predominantly a rural district, where conservative attitudes regarding women still persist. Despite the spread of education, the accompanying cultural and economic processes that lead to social transformation within the family and eventually alter the relative positions of women have so far been muted. Urban social values, such as those now encountered within the city confines of Old Malda and Englishbazar, have thus had limited impact on the gender characteristics of rural society. In such a situation, numerous traditional practices that reinforce the inferior social positions of women continue to be practised by all cultural communities, prominent among which are the practice of dowry and early marriage. Educated women are placed in a particularly ambiguous position because of this. Even after moving into more active social roles and acquiring the ability to understand the predicament in which women are placed because of patriarchal values, they are often unable to challenge gender practices that receive strong social sanction and are compelled to accept these as their lot.

Societal structures that subordinate the roles of women within traditional communities are often enforced through the open exercise of power by males, both in natal and marital relations. The unfortunate consequences that are faced personally by women include physical and mental cruelty, domestic and dowry-related violence, bigamy and desertion, sexual harassment and abuse at home and in the workplace, as well as specific crimes against women, including the crime of rape. Since many such events – especially those that occur in the privacy of the marital home – find tacit approval rather than condemnation within society,

they are not treated as offences under law. In certain situations, which also recur in Malda, poor women also fall prey to organised criminal activities such as trafficking and prostitution, receiving little protection from the law. Many crimes where women are victims are also related directly or indirectly to property matters, among which are the incidents of witch-burning reported from tribal areas in the Barind. Given the socioeconomic backwardness of Malda, the proportion of crimes and offences against women is rather high.

A recent study on the dimensions that child marriage, dowry-related offences and trafficking of women and children have assumed in the six North Bengal districts, carried out by the Centre for Women's Studies at North Bengal University, sheds considerable light on the critical crime situations that confront women in Malda district. Recent crime records on the incidence of crimes against women [CAW] in Malda district reveal that the bulk of such cases pertain either to marital offences relating to cruelty and torture of women by their spouses or in-laws (under section 498A IPC) and cruelty, torture and abetment to suicide (u/a 498A/ 306 IPC); or to crimes against the women's person such as rape offences (u/s 376 IPC), criminal assaults to outrage modesty (u/s 254 IPC), and the kidnapping/ forced marriage or procuration of minor girls (u/s 63/ 366/366A IPC). Although the number of such cases registered by the district police varies from year to year, the highest number of cases every year are registered under sections 498A & 306 of the Indian Penal Code, pointing to the insecure situations that many women face in their marital homes. The arrest record also shows that the highest number of arrests are made each year against police cases in this category.

**Table : Crimes Against Women [CAW] recorded in Malda Districts 2003-2005**

	2003 Cases	2004 Cases	2005 Cases	2003 Arrests	2004 Arrests	2005 Arrests
<i>u/s 498A/302 IPC</i>						
Death from Cruelty/Torture & Murder by Spouse/in-Laws	4	14	4	12	35	12
<i>u/s 498A/304 IPC</i>						
Cruelty/Torture & Death from Bodily Injury	3	1	-	7	2	-
<i>u/s 304B IPC</i>						
Bodily Injury within 7 yrs of Marriage	4	4	3	13	12	11
<i>u/s 498A/306 IPC</i>						
Cruelty/Torture & Abetment to Suicide	20	31	9	43	64	22
<i>u/s 498A IPC</i>						
Cruelty/Torture by Spouse/in-Laws	99	245	175	122	270	201
<i>u/s 376 IPC</i>						
Rape Offences	57	98	46	63	109	53
<i>u/s 363/366/366A IPC</i>						
Kidnapping/Forced Marriage or Procuration of Minor Girls	20	48	23	47	94	40
<i>u/s 254 IPC</i>						
Criminal Assault to Outrage Modesty	67	112	na	75	124	na
Eve-Teasing Offences	1	-	-	1	-	na
<b>Total Cases &amp; Arrests</b>	<b>275</b>	<b>553</b>	<b>260</b>	<b>383</b>	<b>710</b>	<b>339</b>

Source: State Crime Research Bureau, West Bengal

It may be noted that such records probably represent the tip of the proverbial iceberg, since a large number of crimes where women are victims go unreported, particularly when the victim is silenced by family concerns, such as in rape. The arrest records against rape offences also reveal that in many cases, more than one offender is involved, demonstrating tangibly that rape is the exercise of male power rather than merely a sex offence.

Since marital offences form a major component of the crimes committed against women in Malda district, useful comparison may be made of the incidence of such crimes in Malda against the incidence of similar crimes in the six North Bengal districts as a whole. Dowry-related cases in Malda are showing a definite rising trend, with the proportion of such cases recorded in Malda district rising from around 15 percent to

around 41 percent of all such crimes recorded in the North Bengal districts. It is possible that such trends partially reflect the better reporting of cases after the stress officially laid by the police authorities on preventing crimes against women. Crimes u/s 498A of the IPC pertaining to cruelty and torture within the marital home represent more than one-third of all such cases recorded in North Bengal over two consecutive years between 2004-2005. Although the number of cases u/s 498A/302 and 498A/304 IPC, where such marital cruelty has resulted in the death of the woman, are fewer in number, they represent a very high proportion of similar cases recorded in North Bengal, compared to which the incidence of abetment to suicide u/s 498A/306 is proportionately much smaller. Thus, marital violence against women in Malda district often takes extreme forms.

**Table: Dowry-related Cases in Malda District 2003-2005**

	2003	2004	2005
<i>Cases u/s 498A IPC - Cruelty/Torture by Spouse/in-Laws</i>			
Malda	99	245	175
N Bengal	665	719	376
<i>% of N Bengal Cases</i>	<i>9</i>	<i>34.1</i>	<i>46.5</i>
<i>Cases u/s 498A/302 IPC - Death from Cruelty/Torture &amp; Murder by Spouse/in-Laws</i>			
Malda	4	14	4
N Bengal	13	30	11
<i>% of N Bengal Cases</i>	<i>30.8</i>	<i>46.7</i>	<i>36.4</i>
<i>Cases u/s 498A/304 IPC - Cruelty/Torture &amp; Death from Bodily Injury</i>			
Malda	3	1	-
N Bengal	6	5	1
<i>% of N Bengal Cases</i>	<i>50.0</i>	<i>20.0</i>	-
<i>Cases u/s 498A/306 IPC - Cruelty/Torture &amp; Abetment to Suicide</i>			
Malda	20	31	9
N Bengal	140	186	53
<i>% of N Bengal Cases</i>	<i>14.3</i>	<i>16.7</i>	<i>17.0</i>
<i>Cases u/s 304B IPC - Bodily Injury within 7 yrs of Marriage</i>			
Malda	4	4	3
N Bengal	44	35	24
<i>% of N Bengal Cases</i>	<i>9.1</i>	<i>11.4</i>	<i>12.5</i>
<b>Total Dowry-related Cases</b>			
Malda	130	295	191
N Bengal	868	975	465
<i>% of N Bengal Cases</i>	<i>15.0</i>	<i>30.3</i>	<i>41.1</i>

Source: District Crime Research Bureau, Malda

Analysis of the regional incidence of cases u/s 498A/302 IPC registered at the eight regional *thanas* of Malda district, involving deaths of women between 2004-2005 as a direct result of marital cruelty, shows that such crimes have occurred across the entire district, with the exception of Englishbazar PS. Cumulatively, their incidence has been highest in Kaliachak PS, followed by Manikchak PS and Baishnabnagar PS, all located within the Diara.

## Trafficking of Women

From the evidence of frequent media reports and national crime records, trafficking of women from the eastern regions of India and other cross-border locations has assumed menacing proportions. Young girls,

divorced or separated women as well as other women living in poverty have fallen easy prey for well-organised networks of traffickers that have spread their tentacles into these regions, and have been trafficked to cities and other locations in the north and west of the country. Cities in North Bengal like Siliguri and Englishbazar, form convenient hubs from which traffickers can operate, often in connivance with agents of the local flesh trade, because of their proximity to borders and their overall connectivity through road and rail communications. A study conducted in 2002-2003 by the National Human Rights Commission [NHRC] in collaboration with UNIFEM revealed that several border districts of northern West Bengal form a conduit, through which women from eastern Nepal and Indian states like Assam are being channeled into

the flesh trade or into work-bondage at locations far from their homes. The 2006 study conducted by the Centre for Women's Studies at North Bengal University has assessed the dimensions that trafficking of women has assumed in the North Bengal districts. The evidence cited by the study establishes that these trafficking networks also draw victims from women living in these districts, including several victims whose homes are in the district of Malda.

Not all women who fall prey to traffickers join the flesh trade. Several women victims from the region leave their homes willingly against the promise of decent work, but are then forced to work in coercive work environments at brick-kilns, stone quarries and the like, where they are enslaved without adequate monetary compensation and also frequently subjected to extreme physical and sexual abuse. Women from Malda district have also been trafficked to northern states like Haryana and Rajasthan, to be sold as brides to widowers and other aged spouses. The main factor that differentiates trafficking from free consent is the ignorance of the victim about the true purposes for which she is being lured away from her home and family. One form of the common *modus operandi* used by male traffickers and their agents in the region to lure away young girls living in poverty from their village homes is to gain the trust of the girl and her parents in connivance with a local resident and then make an offer of marriage, in lieu of which the girl's family is paid a small sum of money against 'marriage expenses'. Another form, used when the traffickers

employ women agents, is for women who had left the village in the past to be sent back to their homes, from where they lure other women away by impressing them with the promise of 'work in the city' and a better life ahead. Among the many people who get duped into acquiescence are parents too poor to afford the weddings of their daughters, and orphaned or widowed women living alone without the support of families. The studies also point out that traffickers operate freely throughout the region, because of existing loopholes in the law, as prosecutions for trafficking offences have to be preceded by recovery of the victims, before the offences are identified as such. Thus, many women listed as 'missing' in police records may actually have been trafficked, but cannot be identified as trafficking victims, unless they come back at some point and narrate what had befallen them.

The two provisions of the law used by police authorities to initiate penal action against traffickers are the Immoral Traffic Prevention Act [ITPA] used in cases of trafficking of women for prostitution, and sections 363/366/366A/366B of the Indian Penal Code which relate to the kidnapping, abduction or inducement of a woman to compel her marriage, or to the procuration of minor girls either from within the country or across international borders, against which the maximum penalties range from 7-10 years in prison. In practice, prosecution can be difficult unless the victim is recovered before she can be trafficked, since no proof of the crime exists without the personal evidence of the victim.

**Table: Cases of Trafficking of Women in Malda 2003-2005**

Year	Cases registered under Immoral Traffic Prevention Act [ITPA]	Cases registered under Indian Penal Code [IPC] sections
2003	1	20
2004	4	48
2005	na	23

Source: District Crime Research Bureau, Malda

**Table: Cases of Trafficking of Women in Malda 2003-2005**

	2003	2004	2005
<u>Cases under ITPA</u>			
Malda	1	4	na
N Bengal	1	18	na
% of N Bengal Cases	100.0	22.2	-
<u>Cases u/s 363/366/366A/366B IPC</u>			
Malda	20	48	23
N Bengal	118	198	77
% of N Bengal Cases	16.9	24.2	29.9
<u>Total Trafficking Cases</u>			
Malda	21	52	23
N Bengal	119	216	77
% of N Bengal Cases	17.6	24.1	29.9

Source: District Crime Research Bureau, Malda

As recent crime records from Malda district reveal, the number of trafficking cases registered under SITA or the relevant sections of the IPC amount to between 22-24 percent of all such cases registered in the six North Bengal districts, which is rather high. Since many more cases are registered under the IPC compared to those registered under ITPA, it would appear that the law enforcement authorities work more effectively when preventing or rescuing victims who may otherwise end up in the flesh trade. More tolerance seems to be exercised in the case of brothels and other establishments from which prostitution is conducted on a regular basis, since few cases are registered under ITPA.

Case records and media reports show, however, that such cases are not isolated instances where a single victim might have been duped or taken advantage and subsequently trafficked, but have occurred as events linked within a well-organised trafficking frame, involving the operation of multiple agents through many parts of North Bengal and adjoining states. Cases thus exist where girls trafficked from other districts in North Bengal have been recovered in Malda and also where girls trafficked from Malda district have been recovered in Delhi or Mumbai. In a single case registered in Englishbazar PS, a large group of girls who had been trafficked from Assam were recovered from the custody of traffickers based in Englishbazar. Tribal girls from villages in Old Malda and Bamangola blocks have been enticed away either on the assurance of work or

marriage and subsequently sold to brothel-keepers in Delhi or to aged spouses in Faridpur, Punjab. Sahajogita Samiti, an Englishbazar-based NGO which has maintained watch over several such cases, has subsequently become involved in tracing some of these victims and in arranging for their rescue and subsequent rehabilitation.

The survey carried out in course of the trafficking study also covered certain areas of Malda district that have become potential targets for trafficking. Several predisposing factors were identified by the study, which escalate the risk of women being trafficked from the district. Most residents in such potential target areas are very poor because of the increasingly limited access to work. Migration of both men and women workers from these villages to distant cities in the past has therefore been a relatively common occurrence. Many migrant workers who return for an annual visit to their villages, subsequently leave with fresh companions who had sought their assistance in finding work. Many women are persuaded to leave their village on the assurance of finding employment in domestic service, from other women who claim to have found such easy work in the cities. No watch is kept – either by the local panchayats or the local law enforcement authorities – on those who come or go in this fashion, or on certain ‘friends’ who sometimes visit the village with them. Reports about people who go missing after voluntarily leaving their village are seldom filed with the appropriate authorities. Hence the cases of

trafficking of women that have occurred in the district are extremely difficult to follow up. With increasing outmigration from the rural areas of Malda district, the risks of escalation in incidents of trafficking are self-evident. These risks can only be offset if the panchayats of Malda district perceive how they are being targeted, and maintain social watch over all suspicious events.

## Reproductive & Child Health Issues

As noted previously, early marriage is still the norm rather than an exception in the rural areas of Malda district. Estimates of birth rates and the levels of female fertility in the district generated from figures available in the census conducted in 1991 show that these significantly exceeded the averages for the state of West Bengal. Against the crude birth rate [CBR] of 29.01 per thousand and a total fertility rate [TFR] of 3.61 per woman in West Bengal at the time, the district of Malda had a CBR of 37.56 and a TFR of 5.01. Thus on an average, at least one more child was born per woman in Malda than in the rest of the state. Since female fertility in Malda also exceeded the corresponding rates in the other North Bengal districts, certain predisposing factors like the cultural composition of the district population would appear

to be responsible, along with differences in relative levels of economic and human development. Because of such reasons, cultural customs and norms that extend the reproductive span of women would have a close bearing on fertility and child survival, ultimately impacting on the social position of women and children in Malda district

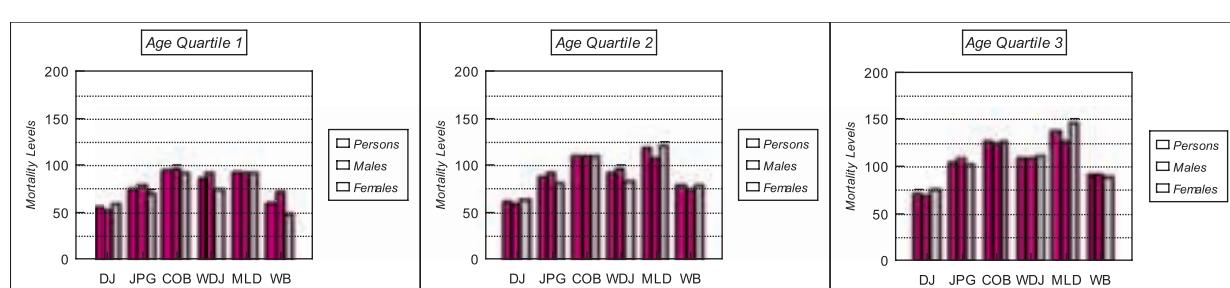
The cultural practice of early marriage, which is still witnessed widely in rural Malda, lies at the root of this. Besides having a lengthened reproductive span, young rural women also experience repeated pregnancies before the age of sexual maturity, accompanied by birth complications that lead to higher incidence of maternal and child mortality and other health problems that reduce the probabilities of their survival to a later age. Resulting differences in gender survival rates lead to lower life expectancy among women, and to higher masculinity in the surviving population. A critical factor that conditions the ratio of females to males in Malda is the rate of child survival and its gender characteristics. Estimates from the census conducted in 1991 reveal that although more children are born on the average to each married woman in Malda district, the chances of all children surviving into maturity are much lower in Malda than in the state of West Bengal as a whole. Higher child mortality is thus experienced by both rural and urban families, leading to higher fertility as a compensating response.

**Table : Child Birth & Survival among Women at Terminal Stage of Fertility**

Unit	Ever-married Women in the Age-group 45-49 years			Ever-Born Children			Surviving Children		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Malda	44365	40905	3460	5.58	5.68	4.44	4.56	4.59	4.11
W Bengal	1296728	1010990	285738	4.56	4.77	3.83	4.01	4.14	3.55

Source: *Census 1991*

**Chart : Gender-specific Mortality Patterns in Malda & the North Bengal Districts**



Unit Codes: CWB=West Bengal; DJ=Darjeeling; JPG=Jalpaiguri; COB=Coochbehar; UDJ=Uttar Dinajpur; DDJ=Dakshin Dinajpur; MLD=Malda

Further evidence of gender differences in mortality and survival rates in Malda district is visible in age-specific differences in gender mortality and survival rates estimated from the census data for 1991, which are graphically represented for the three age-quartiles 1-25 years, 25-50 years and 50-75 years in the associated bar-chart. Mortality rates are higher in Malda than in West Bengal as a whole or even in the other districts of North Bengal, and mortality levels among the female population are higher than among males, because of

higher female mortality relative to male mortality in the upper age-quartiles. Such gender differentials in mortality are generally the result of a mix of cultural and demographic factors that include low rates of institutionalised or attended deliveries, lower survival rates among girl children because of gender inequalities in parental care and healthcare access, and the higher mortality risks that directly affect the survival of women because of gender-specific factors like maternal mortality.

**Table: Family Welfare Programme in Malda District**

Block	Government Family Welfare Centres	2001 Vasectomies performed	2001 Tubectomies performed	2001 IUD Insertions
Harischandrapur 1	1	1	608	53
Harischandrapur 2	1	-	251	84
Chanchal 1	1	-	1346	75
Chanchal 2	1	-	324	78
Ratua 1	1	-	-	35
Ratua 2	1	-	225	60
Gajol	1	-	735	106
Bamangola	1	-	620	80
Habibpur	1	-	-	186
Old Malda	1	3	71	69
Englishbazar	1	-	1	52
Manikchak	1	1	1648	136
Kaliachak 1	1	-	-	337
Kaliachak 2	1	1	510	59
Kaliachak 3	1	4	297	68

Source: BAES GoWB

Contraceptive prevalence in Malda district is still low at present, and birth rates continue to be high. In rural families, decisions regarding the use of contraception are generally a male prerogative, partly because of conservative social values that prevail among the rural communities and partly because of the ignorance of many women about reproductive health matters. Temporary family planning [FP] methods continue to be used - despite higher rates of failure - in families that have reached their desired size, because of male convenience, and the adoption of terminal FP methods is still a rarity in most blocks of the district. As the table above indicates, when these are adopted, the onus for seeking surgical intervention falls upon women since rural males are extremely reluctant to undergo the much simpler male procedure of vasectomy. Thus, although

tubectomies were performed on well over six thousand women across the district during the reference year, only ten males proved willing to undergo the equivalent male procedure. For a district with an aggregate population exceeding 32 lakh, the number of terminal FP cases is very small indeed. Not a single terminal procedure was performed over the year at the Family Welfare centres at Ratua 1, Habibpur and Kaliachak 1, and in Ratua 1 even the number of IUD insertions was very low. Clearly, serious effort will have to be made to implement the Family Welfare programme, if total fertility levels in Malda district are to be brought on par with those in the rest of the state. For this, women in the district have to be educated about their reproductive rights and thus about their option to forego the cycle of early marriage, frequent

pregnancies and subsequent complications in maternal & child health that has so far been a common occurrence in Malda's rural areas. From being a male decision based on conservative social values, the determination of the ultimate size of rural families must become a decision of the woman who personally has to undergo motherhood, and should be based on the long term perspective of improving the state of maternal & child health in the district.

Paradoxically, such demographic characteristics that have had adverse consequences on the survival of women in Malda do not improve the social position of women but in fact are responsible for worsening it. The social value given to women is higher when male survival is low, because it leads to higher social and economic valuation being attached to their labour. Increased male survival makes the labour of women redundant except as unpaid work-agents, because a larger male workforce becomes available for all economic forms of work. Since women are gradually reduced to work within the

household, their power declines especially in terms of economic and property relations, and they become more and more subservient to social and economic control by men. Rural women who share in livelihoods and economic work have no control over their own earning contributions, because of the social control exercised over them by their spouses. Since these personal earnings constitute the most basic form of property, women become more and more dispossessed in spite of the valuable contribution they make to the survival of the home and family. An indication of their diminishing social worth is also found in the institution of dowry, which actually measures the premium commanded by males because of their greater economic and social power. Eventually, marriage is seen as a means for augmenting the economic assets of the male and his family through the extension of this social power over the family of the girl who marries into the male's family, leading to the entrenchment of dowry-related practices and crimes.

**Table : Survey Sites for the Study**

Region		Village	Location	Sample Respondents
Diara	Kaliachak 2	Uttar Model Dhulauri / Purba Jelepara	Rajnagar GP Bedrabad GP	104
	Kaliachak 3	Chek Seherdi Englishbazar	Bedrabad GP Englishbazar M	
Tal	Chanchal 1	Sherpur	Makdampur GP	101
	Chanchal 1	Makdampur	Makdampur GP	
	Ratua 1	Kheria	Sripur GP	
	Ratua 2	Chapai Kadamtali	Sambalpur GP	
Barind	Old Malda	Nimai Sarai Rangamati Simuldab	Bhabuk GP Bhabuk GP Bhabuk GP	95
<b>Total Respondents</b>				<b>300</b>

## DHDR Gender Survey Findings

During the course of the present gender study for the *District Human Development Report*, a special-purpose survey was carried out by the Department of Sociology, Malda Women's College, on a sample of 300 rural women respondents drawn from the three ecological zones of Malda district, namely the Tal, Barind and Diara regions. The objectives of the survey study were

- (a) to assess the current extent of gender deprivation in the district in terms of the basic quality of life and to identify other implicit forms in which gender deprivation might also exist
- (b) to understand the personal attitudes of women regarding conceptualisations of gender rights and gender inequity
- (c) to analyse whether these levels of gender

deprivation have been altered in any way, by the development process

Representation of all communities in the sample was ensured through proportional selection of respondents from each zone on the basis of the cultural composition of the population. Thus of 300 sample respondents, 185 (61.7%) were Hindu, 109 (36.3%) were Muslim and 6 (2%) were Christian. While the number of unmarried respondents among them was 97 (32.3%), 164 (54.7%) were currently married, 3 (1%) were widowed and 9 (3%) were either divorced or separated from their partners at the time of the survey. In terms of economic status, 134 (44.7%) of the respondents were independent self-supporting earners while 166 (55.3%) were in the dependent category.

Regardless of their earning status, most women respondents (95%) lived in *kuchcha* houses built of bamboo and mud plaster. Living space in these homes amounted to a maximum of two rooms, with livestock animals being kept in their close vicinity. Cooking was mainly performed by the women (90%) on earthen stoves, using earthen utensils and cookware. Comfort devices like pressure cookers, etc. were not used by these rural women. Very few of these women (5.3%) had access to commercial cooking gas, while the rest used a combination of wood, paddy straw and other agro wastes as fuel. Even fewer women (5%) had access to drinking water from domestic tubewells, while the rest fetched their daily supply of water from sources located at distances of upto 2 km from their homes. Access to drinking water had become easier over the years, and many women (71.7%) were now able to draw water within a distance of 1 km from their homes. However, during the dry summer months, fetching water became onerous and caused some tension among the women. No provision exists within their village homes, which provides privacy and sanitation to women and young girls during the performance of personal functions.

The activities in which women reporting a self-dependent earning status were mainly engaged commonly comprised agricultural labour, *biri* binding, petty trade, and NGO & SHG work, etc. A few others among the self-dependent group were drawing old age pensions, while the dependent women gave more priority to domestic duties and chores, to which they devote more than 12 hours every day. A large majority of women respondents did not report any discrimination

by gender while serving or being served meals by their family and siblings. However married women were unwilling to acknowledge the social custom of the husband eating before his wife does as a form of food discrimination between genders. They thought the idea of a woman eating before her husband was unusual. However, women from nuclear families and other working women stated that they have eaten their meals before their husbands on occasion, when necessary. Most women (65%), with the exception of women from the ST community, expressed a strong preference for their first-born child to be a son. The first preference among ST women was for a daughter, since the custom of bride-price persists in their society. A few married women (9%) stated they would prefer their next child to be a daughter, since they already had a son, while some other women (15%) reported no specific preference, of whom a few (10%) were unmarried girls.

Most women (90%) aged above 18 years had voted personally in the preceding panchayat and parliamentary elections. However, the choice of the candidate to be voted for depended on the decision of her father if the woman was unmarried or the decision of her husband if she was married. Very few women (2%) stated that they had cast their votes independently, among whom were several women whose husbands were currently outside the state in search of work. The degree of political participation by each woman appeared to depend on the level to which she had been educated. One woman respondent, who had been elected Panchayat Pradhan, merely signed her name where required, remaining fully ignorant about her rights and duties as a woman and as Panchayat Pradhan. She was being guided by a 'helper' (a male relative) at every stage in the performance of her official activities.

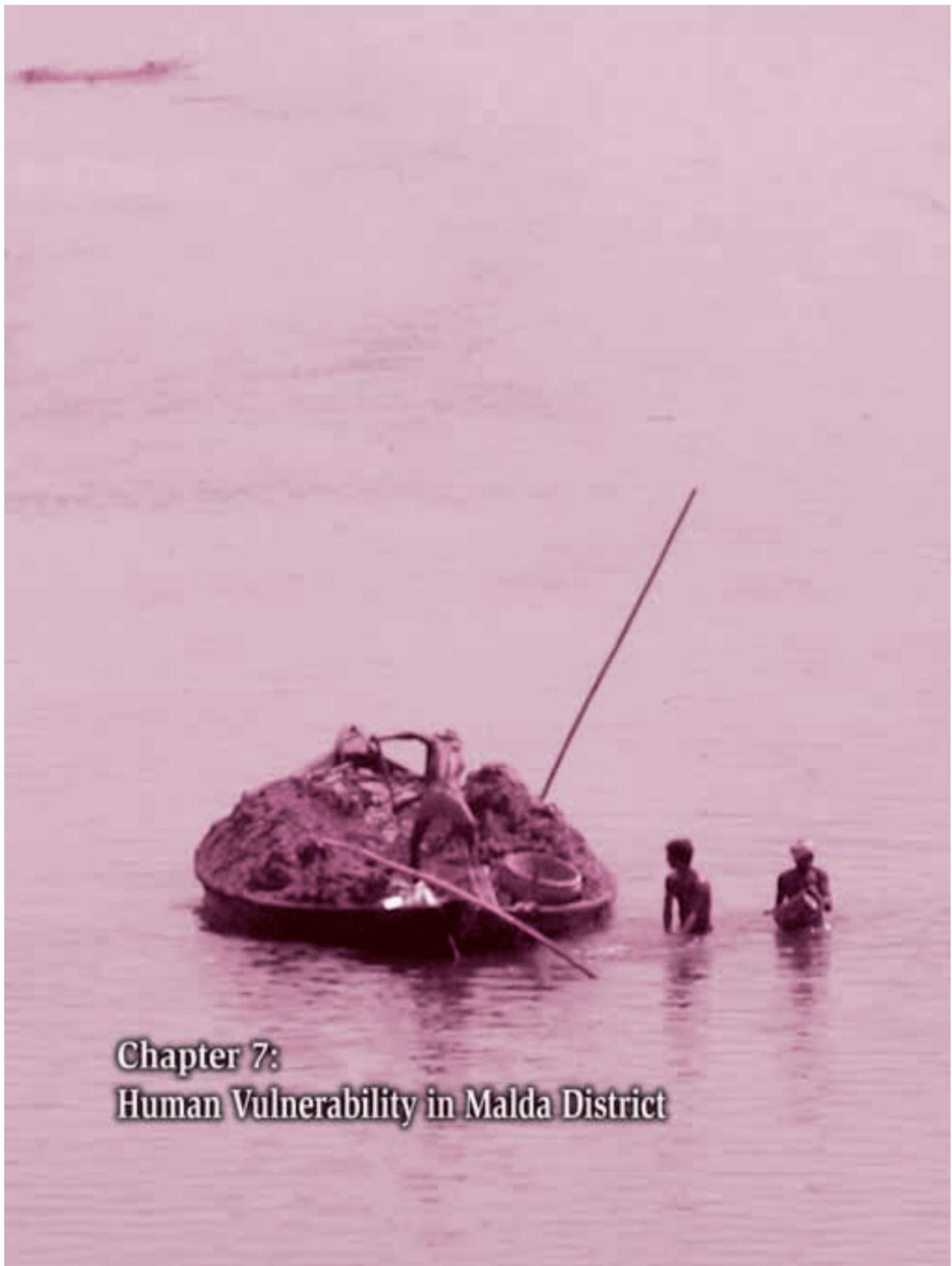
Decisions involving household expenses or decisions regarding the use of the woman's personal earnings were made jointly by both spouses in the case of most women (75%). The same cooperation also applied to decisions concerning the daily diet of the households, where the husband did the necessary shopping, and the woman cooked. In matters concerning personal health expenses, few women (15%) took decisions on their own, except in the case of gynaecological complaints, and in the case of other women, the appropriate decision was taken either by the husband

or by some other person within or outside the family. Most women earners (60%) reported that they freely participated in decisions concerning the use of their personal earnings. However, an even larger section of the women earners (89.7%) stated that their earnings supplemented household income and were not customarily utilised to fulfil personal needs.

The survey results also provided strong evidence of a change in the attitudes of rural women towards their gender rights. Most women respondents were already sensitised about violations of women's personal rights that take place in marital and other situations and many were adequately informed about the channels for redress. Among Muslim women respondents, for instance, an overwhelmingly large proportion (93.6%) were well informed about their right to reclaim *meher* in the event of breakdown of marriage, as sanctioned by Muslim personal law. No incidents of polygamy had occurred within the personal experience of the Muslim

respondents, even though the practice is supported under Shariat law. Only two Muslim respondents had separated from their spouses.

Among rural Hindu women too, a large proportion (89.2%) were aware about their marital rights as well as the steps for legal redress against domestic violence. The study showed that the peer support received from other rural women and women's groups had a noteworthy impact on the incidence of violence against women. Because of this development, earlier situations where domestic violence had been condoned by other women are now on the wane. The role of women's NGOs like Sahajogita Samiti in educating women in Malda about their rights was also acknowledged by many rural women respondents, who believed that further improvements in gender positions in Malda district was possible if women got together to place their gender case unitedly.



**Chapter 7:**  
**Human Vulnerability in Malda District**



## Human Vulnerability

Although human development reflects the widening of opportunities that occurs during the process of development, the dispersal of such opportunities among the target human population may not always be uniform. Whether measured in purely economic terms or in terms of human development, development processes can perpetuate or even amplify cultural and socioeconomic inequalities, as a consequence of which select groups of individuals may secure greater benefits at the expense of other social or cultural groups. In the regional situations of Malda district, where sustained economic losses and personal distress have repeatedly affected certain sections of the district population as a direct consequence of river erosion and floods, it becomes necessary to examine how the overall achievements of the district in terms of human development have been affected by such adversities.

Several economic and demographic factors can also contribute to vulnerability within human populations, as a result of which social inequalities may widen during the course of human development. In such instances, certain vulnerable sections within the population who have not been able to leverage new development opportunities to the same extent as their counterparts may remain economically motionless or may even suffer a developmental setback relative to their counterparts. The identification of such groups who have been unable to share equitably in development benefits is of prime importance before any focused intervention can take place to improve their lot.

Human vulnerability in Malda district is rooted in three distinctly visible processes, namely

- (a) losses of livelihood and property that have occurred periodically because of widening ecological imbalances, natural calamities and riverine erosion
- (b) land and livelihood losses resulting from conversion of land from agriculture to commercial orchardry and also to other forms of non-agricultural land use, and
- (c) high migration rates in the district, that result in

## Chapter 7

the depression of wage-levels and thus in the progressive devaluation of rural livelihoods

The contribution that each of these factors makes to human vulnerability may be assessed in terms of its impact on the patterns of human development within the district of Malda

### Ecological Causes of Human Vulnerability

Human vulnerability is a constant reality for the rural poor in any developing region where livelihood insecurity forms a key component of human poverty. Any coincident ecological or economic shock thus directly affects livelihood opportunities among vulnerable sections of the rural population whose livelihoods become even more insecure. In the district of Malda, human vulnerability resulting from ecological factors is felt particularly widely across the Diara blocks of Manikchak, Kaliachak 2 and Kaliachak 3, where entire villages have been swept off the district map in recent times by the raging advance of the Ganga. Although quantification of the resulting land and property losses is available through official district records, their human impact has been further assessed by specific surveys and case studies conducted among the displaced population. These studies reveal how these vulnerable sections have in fact regressed in human development terms, whilst people living elsewhere within the same district have advanced relatively. The special vulnerability of the population that lives and farms the riverine *chars* along the Ganga is also rooted in the same ecological factors.

Nearly all rivers – major or minor – that pass through the district of Malda are prone to seasonal flooding. While floods and river-erosion along the main course of the Ganga through the Diara are part of a complex fluvial process with major transboundary causes as well as implications, seasonal flooding also occurs frequently along the Fulahar and Mahananda as they traverse the Tal region, and also the Tangan and Punarbhaba which drain the old alluvial uplands of the Barind.

**Table: Gram Panchayats vulnerable to Flooding & Erosion in Malda District**

CD Block	Region	Affected Gram Panchayats	Affected Villages/Habitations
Harischandrapur 2	TAL	Islampur	Uttar Bhakuria
Ratua 1	TAL	Mahanandatola Bilaimari	<i>Jangalitola</i> <i>Bankutola</i> <i>Paschim Ratanpur</i> <i>Khasmahal</i> <i>Ajitzola</i> <i>Gangaramtola</i> <i>Nagkalti</i> <i>Rupnarayanpur</i>
Gajol	BARIND	Chak Nagar	Doba Khoksan
Old Malda	BARIND	Muchia	Rampara Ghat
Englishbazar	DIARA	Milki	Khaskhola
Manikchak	DIARA	Hiranandapur Mathurapur Gopalpur Manikchak Dakshin Chandipur	<i>Balutola</i> <i>Bahir Lutihara</i> <i>Debutola</i> <i>Nanditola</i> <i>Sankartola</i> <i>Doulattola</i> <i>Dakshin Hukumattola</i> <i>Uttar Hukumattola</i> <i>Udhantola</i> <i>Iswartola</i> <i>Kamalipur</i> <i>Jotpatta</i> <i>Radhunathtola</i> <i>Bipintola</i> <i>Sadhucharantola</i> <i>Jitentola</i> <i>Gudartola</i>
Kaliachak 2	DIARA	Kakribandha-Jhowbona*** Uttar Panchanandapur 1	<i>Ohitola</i> <i>Janutola</i> <i>Ugaltola</i> <i>Kacholitola</i> <i>Sahidtola</i> <i>Jahirtola</i> <i>Aladitola</i> <i>Motitola</i> <i>Subhanitola</i> <i>Vest Para</i> <i>Hakimtola</i> <i>Sultantola</i> <i>Mistiripara</i> <i>Kacharitola</i>
Kaliachak 3	DIARA	Birnagar 1 Birnagar 2 Laxmipur Par Deonapur-Shovapur	<i>Gandharitola</i> <i>Sarkartola</i> <i>Atartola</i> <i>Mukundatola</i> <i>Argartola</i> <i>Prahladtola</i> <i>Amarnathtola</i> <i>Par Lalpur</i> <i>Par Anantapur</i>

Source: Malda Zilla Parishad

\*\*\*Entire area under KB Jhowbona GP lost subsequently in 1998 to Ganga erosion

The table above lists all Malda blocks and villages that have been hit severely by river erosion and flood events between 1998-2005. Flooding along the Fulahar, which partially receives the incremental discharge when the main Ganga is in spate, affects the Tal blocks of Harischandrapur 2 and Ratua 1, and has had adverse impact on three GP areas and 9 villages. Old Malda block in the Barind tract, on the other hand, is affected by flooding on the Tangan as well as the Mahananda. Since the Tangan traverses a deep ravine in the Barind upland before discharging into the Mahananda, periods when the Mahananda is in seasonal high-spate induces a backflow effect across the Tangan basin, causing flooding as far north as Gajol block. Two GPs, one each in each of these two Barind blocks, are the most affected. Because of the low elevational gradients across the Tal and Diara regions, similar backflow events occur in a chain when the Ganga is in high spate thus impeding efficient discharge from the Mahananda and consequently also from various other minor rivers that feed the Mahananda. The seasonal *bils* and waterbodies produced by the impoundment of the monsoon discharge that give the Tal its distinctive character are also linked to such events.

In terms of sheer magnitude of damage as well as the frequency of occurrence, the brunt of ecological catastrophes stemming from floods and river erosion has been felt in recent years by Kaliachak 2 and Manikchak, and to a slightly lessened extent by Kaliachak 3. Since all three blocks lie in the Diara, the principal cause of these events is the encroaching Ganga. While 5 GPs comprising 17 villages have been affected in Manikchak indicating the widespread impact of riverine erosion on this block, 8 villages comprising the erstwhile Kakribandha-Jhowbona GP in Kaliachak 2 have been obliterated entirely from the district map by the inexorable eastward shift of the Ganga in the region above the Farakka Barrage. The river has subsequently begun to advance into Panchanandapur GP. Even in Kaliachak 3, where the sites of erosion mostly lie downstream of Farakka, as many as 4 GPs comprising 9 villages have been cumulatively affected by erosion on the Ganga left-bank.

Although the Diara is seen to be the region most affected by floods and riverine erosion because of its proximity to the Ganga, parts of the Tal and even the Barind are also prone to annual flood erosion. Besides the Ganga,

the other rivers that cause erosion within the district are the Fulahar which affects Belaimari GP in Ratua 1 block, the Tangan which affects Chaknagar GP in Gajol block, and the Mahananda which affects Muchia GP in Old Malda block. Within the Diara, Manikchak is the block most widely affected by river erosion, with Kaliachak 2 being in the third position after Kaliachak 3 in terms of the degree of erosion, but in the second position in terms of the number of villages affected. Englishbazar, Harischandrapur 2, Ratua 1, Gajol and Old Malda blocks are also affected by riverine flooding or erosion, but with less frequency. Thus, the Ganga is the main source for riverine natural disasters in Malda district.

## Longterm River Oscillation in Malda

The Ganga enters West Bengal in its third or lower phase, before egressing through the distributary channels of the Padma and the Bhagirathi-Hooghly into the Bay of Bengal. The main channel of the Ganga however traverses only a limited part of its total 2500 km long course through West Bengal, with a bankline of 76 km on its left bank in Malda district. The river is known to have undergone several historical shifts of its course in the vicinity of the Malda region because of a combination of several fluvial and topographical features at this point. Near the end of its second phase just prior to its entry into the district, the Ganga flows almost due-east, encountering the Vindhyan rocks of the Rajmahal hills on its right-bank near Munger. Subsequently skirting the southern edges of the old alluvial uplands in the Barind, the old river channel takes a 90° turn southwards entering Murshidabad district through the Bhagirathi, while the main channel flows in a much more easterly direction to become the Padma after it enters Bangladesh. The fact that this point of bifurcation occurs so close to the district of Malda draws attention to the terrain changes that occur at this point. Similarly, the history of the region, with its record of a sequence of river-course changes that led to the successive abandonment of the ancient cities of Pandua and Gaur and to the ultimate inundation of Tandah by the shifting Ganga, provides considerable evidence of how human habitation and activity in the region have been closely influenced and interlinked with fluvial history.

Having skirted the natural barrier put up by the Rajmahal hills, the Ganga in its lower course enters a region of flat alluvial plains with largely undifferentiated terrain. Satellite imageries of this region covering the Ganga-Padma system exhibit curious geological and geomorphological features including the palaeo-channels of the present river system, the abandoned channels of several extinct or near-extinct rivers, various meander scrolls, oxbow lakes and remnants of prior spill channels, as well as the limiting boundaries of older alluvial tracts, including floodplains, lineaments, etc.. Because of low velocity and very flat stream slope beyond this point, the Ganga like any other alluvial river begins to meander over this terrain, eroding its concave banks while depositing silt along its convex banks. However, unlike the other alluvial rivers of the region, the Ganga is a major river that drains the entire North Indian plain. Along with deforestation and longterm changes in landuse, the development of irrigation in the upper Gangetic valleys has reduced lean-season discharge and increased flood discharge, causing wide oscillation between the lean seasonal flow of 55 thousand cusec [1558 cumec] between March-April and the maximal monsoonal discharge of 18-27 lakh cusec [51-77 thousand cumec] between August-September. Because of this huge variation between peak and lean season discharges, the normal *alluvion* and *diluvion* activities of the fluvial system are thus aggravated by frequent changes in the formations of bed channels and spill channels, leading to temporal instability within the fluvial system of the lower Ganga.

Underlying the temporal oscillations of the Ganga and the other rivers that constitute its tributary and distributary systems are periodic tectonic events that have influenced the terrain and topography of the region. The district of Malda and the landmass to its east and south which these rivers traverse form a crustal gap zone breaking the continuity between the rocks of the Chhotanagpur plateau and those of the Meghalaya plateau, both of which have similar geological structures. It is hypothesised that the crustal rocks here have now sunk deep beneath the alluvial sediments, forming a basement block, long-term movements of which have been responsible for seismicity in the region. At least two major fault structures are traced at the extreme edges of this

sunken region, one of which links the rift valley occupied by the Sone river to that now occupied by the Kosi. The other passes through eastern Bhutan and the Kamrup region of Assam, descending along the valley occupied by the Brahmaputra along the western edge of the Meghalaya plateau. Both extremities – i.e. the Munger rocks and the Shillong region - are tectonically active, and have been associated with several recent seismic events, including the 1897 and 1950 Assam earthquakes and the 1934 and 1988 Bihar-Nepal earthquakes. Long-term movements of the Ganga and Brahmaputra and their tributary rivers are believed to be influenced by these events.

Prior to 1820, the earthquake record in India is poor. Nevertheless, in his *History of Assam*, Edward Gait mentions the occurrence of devastating earthquakes in that region in 1548, 1596, 1663 and 1714. There are records of the 1548 earthquake being felt widely in the Coochbehar region and another major earthquake is believed to have hit northern Bengal in 1505. More recent records provide evidence of the Brahmaputra having changed its course in response to the Assam earthquake of 1897 and again after the 1950 earthquake, the first of these events also being accompanied by a devastating flood. The influence that these historical tectonic events have had on the regional river systems has also been spectacular. Prior to 1776 when Major Rennell drew his survey-map, the Tista had trifurcated some distance below Jalpaiguri, distributing its waters between the Punarbhaba, Atrai and Karatoya. Its main flow thus discharged through the Karatoya into the Ganga system during Major Rennell's time, at a point southeast of Malda. The channel of the Karatoya river occupies a tectonic feature known as the Karatoya fault lying between the Barind and the Madhupur uplands in Bangladesh. Seismic activation of this fault at some point prior to the drawing of Rennell's map was followed in 1787 by the so-called Great Flood of North Bengal, when the Tista abandoned its old channels completely and swung a considerable distance to the east to discharge into the Brahmaputra system. Over the same period, the Kosi has swung in an arc more than 300 km to the west to join the Ganga near Patna, even though the mouth of its earliest channel which is now called the Mara Kosi (dead Kosi) joins the Ganga near Bhutni Diara. Very longterm changes of this nature in the river courses have not left the history of Malda district unaffected.

## Recorded History of River Shifts

Ten centuries ago, during the time of the Palas who ruled from Pundranagara (now Mahasthangarh in Bogra, Bangladesh), the most prominent city of the lower Barind was Devkot or Kotivarsa, the present-day ruins of which are located at Bangarh in Dakshin Dinajpur. The abandonment of this ancient Mauryan city which had also been a strategic river-outpost in northern Bengal during the Gupta age is believed to have followed the migration of the Tista and Punarbhava, and the site thus held little importance by the time the Senas came to power in the mid-12<sup>th</sup> century. Thus the new Sena capital was built at Lakshmanawati (later Lakhnauti) on the west bank of the Ganga, which then flowed along the channel below Englishbazar now occupied by the Mahananda. The site of this old city which lay to the north of the ruins of Gaur now falls within Mahadipur GP in Englishbazar block. However, when the Ganga began to show a tendency to migrate westward during the late years of Sena rule, Lakshmansena was forced to shift his capital southwards to Nuddeeyah (possibly modern Nowdah in Murshidabad, rather than the present Nadia). During the subsequent period of Khalji rule following the defeat of the Senas by Bakhtyar in 1205, an embankment was built along the west bank of the Ganga by Iwaz Khalji to halt the further advance of the river, the remains of which are still seen to the northeast of the ruins of Gaur. Nevertheless, the river appears to have remained unstable over the next century, and hence the capital of the sultans of Bengal was moved by Alauddin Ali Shah from Lakhnauti to Pandua in 1342.

At the time of the Iliyas Shahi sultans, the Mahananda flowed by the city of Pandua. However, it is believed that the Mahananda began to shift westward during the subsequent century, gradually abandoning the site of Pandua and depriving it of navigational access. This process was further accelerated by the earthquake of 1505. With the decline in the importance of Pandua, the capital shifted to Gaur in the mid-15<sup>th</sup> century during the reign of Nasiruddin Mahmud Shah and remained there through the next hundred years. The main flow of the Ganga by this time had shifted from the east of the city to its west, leaving only a few intermediary channels that linked the Mahananda with the Ganga. Gradually extending itself southeastwards

from the older site of Lakshmanawati, the new capital of Gaur at its zenith during the time of Hussain Shah is believed to have had a population of over two lakhs, when it had also become a major centre of the Gangetic river-trade. Portuguese visitors who came to the city in the early 16<sup>th</sup> century thus saw a busy river port by the side of the city. However, following the conquest of Gaur by Sher Shah shortly afterwards, the fortunes of this major mediaeval city began to falter sharply, probably as the consequence of renewed river migration. The Karranis who succeeded the Hussain Shahi sultans consequently shifted their capital westward and further upriver to Tandah shortly afterwards, from where the Mughals also established their Diwani in 1576. Although for a brief period between 1565-1575, Gaur did regain its earlier status of capital, evidence exists of the old drainage channels having become moribund by then, causing the frequent recurrence of plague and pestilence in Gaur around this time. The city thus rapidly lost importance and was eventually abandoned to time, and when Rennell visited the region two centuries later in 1776, he found the Ganga flowing more than 16 km to the city's west.

Although Tandah was favourably located at the time of its establishment, it too succumbed to the whims of the shifting river. Visiting Tandah in 1586, Ralph Fitch recorded the decline in its importance as a result of further migration of the main course of the Ganga. Hence in 1595, Mansingh decided to build a new capital for the Mughal Subah of Bengal at the new upriver site of Rajmahal (now in Jharkhand) on the west bank of the Ganga. Eventually in 1826, Tandah was swallowed by the river and its site re-emerged much later as a *Diara char*. Initially, the location of the new capital at Rajmahal or Akbarnagar was favourable, because of its accessibility by river and its impregnability by land in view of the natural protection afforded to it by the Rajmahal hills. The temporary shift of the Subah headquarters from Rajmahal to Jahangirnagar or Dhaka thus took place for strategic rather than ecological reasons and in 1639, Shah Shuja shifted the capital of the Subah back to Rajmahal and also extended the city further. However, the Ganga appears to have begun to oscillate in the opposite direction at this point of time, gradually yielding new *chars* and *diaras* along its right-bank which reduced the impregnability of the city.

When Mir Jumla transferred the headquarters of the Subah back to Dhaka in 1660, the river had shifted more than 4 km away from the city, leaving Rajmahal as yet another mediaeval relic city along the shifting trajectories of the Ganga.

As this historical record shows, the shifting of the Ganga has been a longterm phenomenon that has constantly shaped and reshaped the territorial history of Malda district. Hence the present river-shifts in the district have to be situated and understood in the longterm context. Shortly after the Ganga traverses around the Rajmahal hills in Jharkhand, the river enters its estuarine stage in Bengal, gradually splitting into several major and minor distributaries that flow over lower West Bengal and Bangladesh. Till it was forded by the Farakka Barrage, the only means of crossing the Ganga near the head of its estuary was the ferry service operating at Maniharighat, northwest of Manikchak in Malda district. The eastward course of the river, till this point, remains relatively stable since it is bound by the hard rock of the hills along its right bank. However, once the Ganga has rounded the shoulder of these Vindhyan hills and has turned southwards, its path downstream is unimpeded by anything more than occasional contours of gradient. When the Kosi had flowed more linearly more than a thousand years ago and discharged into the Ganga through its relict channel located near Bhutni Diara, the combined force of the waters had turned the river sharply to the south. Thus the main flow of the Ganga at that time had entered an ancient channel that passed through parts of Birbhum and Murshidabad. Radical alterations in the left-bank tributary systems – particularly those to the Kosi and Tista – over succeeding centuries were accompanied by considerable adjustments in the estuarine region as the main flow of the Ganga gradually migrated across the estuarine plain till its present place of confluence with the Ganga, just below Dhaka. Although the combined impact of these river changes was felt across a wide swathe of lower Bengal and Bangladesh and closely reflected in the rise and fall of river trade at the port of Kolkata, the point from which all these changes originated was the region presently occupied by the district of Malda. The present river-shifts and natural calamities that affect the district can be seen as part of this continuum.

## Impact of River Erosion on Malda

Till Rajmahal, the Ganga over much of its middle course is bound by gently sloping alluvial plains on its northern bank and the Vindhyan hills to its south. Although no major alterations of its course can occur over this range, deposition of silt beds wherever the channel narrows and creates impediments to the river's free flow results in the frequent rise of *diara* islands from the river bed. The largest of these is Bhutni Diara, located close to the point where the Ganga begins to turn southwards, which also marks the river's entry into the district of Malda.

Reputed to have risen from the river during the reign of Aurangzeb, the island of Bhutni is now protected against erosion by a ring *bund* that encircles the *diara*. Although the Ganga once bifurcated into two streams here encircling the *diara*, its eastern channel that separates the *diara* from the Malda mainland has gradually silted up, becoming shallow and moribund in the process. Hence the main flow now discharges through the deep channel to the west of Bhutni. Along the moribund arm, the Fulahar joins the Ganga below the relict Mara Kosi ('dead Kosi'), forming a spill channel that drains excess floodwaters away from the Ganga into the Mahananda. Two other spillways for channelling flood discharge from the Ganga into the Mahananda are provided by the Kalindri and the Bhagirathi-Pagla streams along the eastern bank. From Bhutni on the river's left bank in Malda district to Jalangi on the right bank in the district of Murshidabad, the main flow of the Ganga passes for about 137 km through West Bengal. However at Khejurtala village in Murshidabad, 40km below the Farakka Barrage, the Ganga bifurcates again into two distributary arms, of which the western arm or Bhagirathi turns southwards through West Bengal to become the Hooghly river, passing Kolkata before discharging into the Bay Bengal through the Sundarbans delta. The other distributary arm continues its eastward journey through Bangladesh as the river Padma, discharging ultimately into the Brahmaputra before meeting the sea.

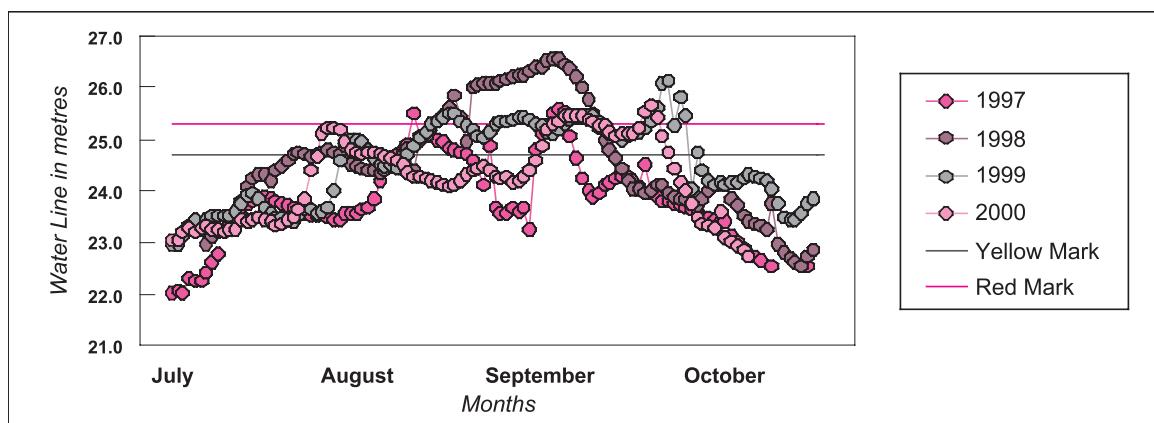
The combined Ganga-Brahmaputra system annually carries an estimated silt load of about 166.7 crore metric tonnes, which either gets deposited in *chars* and *diaras* at different points along riverbanks or feeds into the land building process in the mangrove forests of the lower estuary. Constant scouring action by these rivers is thus

needed for efficient discharge, which keeps the main flow-channels free of shoals, sandbanks and other impediments. Heavy precipitation along the outer Himalaya and the Gangetic plain, over the months when the southwest monsoon is active, increases the discharge of the Ganga by a factor of upto 50 times, causing the kind of instability that the river has displayed in its estuarine section over the long course of its fluvial history. Notably, the transitional zone from which the river begins its free play over the lower Bengal plains, after being compelled to hold course over its middle section by the Rajmahal hills, is located in the vicinity of Malda district.

Bankline surveys and survey maps since 1922-23 show that the Ganga in its course past the Malda Diara, has been stable at two points, namely at Rajmahal and Farakka, but has often changed course in the section between them. Thus, where early maps show the Ganga as having a straight course between Rajmahal and Farakka, later maps and satellite imageries all show evidence of a pronounced leftward swing past Rajmahal and a swing to the right past Farakka. After passing the circular embankment that shields Bhutni, therefore, the river has been scouring a deep channel for itself along its left bank as it passes the Malda Diara, causing tremendous left-bank erosion in Manikchak and Kaliachak 2 blocks. Since the Diara formations stretching to the limits of the ancient floodplain comprise a base of sandbanks overlaid by colloidal silts, these are notoriously prey to saturation and bank failure as the river scours away base material when it rises to spate.

Recent technical studies of left bank erosion by the Ganga in the Malda Diara conjecture that siltation at the Farakka Barrage site, as a result of which the flow of the river is no longer coaxial to the barrage, is one of the contributing causes. Of the 109 sluices along the 2.62 km barrage structure, 56 located near the left bank have been rendered dysfunctional by silt accumulation in the reservoir, considerably lowering the discharge efficiency of the barrage and also causing impoundment of the discharge when the river is in high spate. Meanwhile, the Ganga surpassed all previous records in 1998, when massive flooding occurred in Malda, with a peak discharge of 26.8 lakh cusecs. Data from the Farakka Barrage authorities estimate the cumulative extent of land loss as a result of left bank erosion between 1979-98 at 2915 ha, averaging over 145 ha per annum after construction of the barrage, against average land losses of over 895 ha per annum between 1947-79. Land losses in the more recent period between 1989-98 have, however, risen to an annual average of 179.5 ha and have surpassed 300 ha in 1996 and 1998 – two years when the maximum discharge crossed 25 lakh cusecs, indicating that upstream conditions are as much to blame as the inability of the barrage structure to dispose of this huge discharge efficiently. While clearly, the last word on the causes of Ganga erosion has still to be said and the historical record speaks for the past instability shown by the river once it enters the district of Malda, the distress frequently visited by these natural calamities on the region makes the people currently living in the Malda Diara especially vulnerable to its impact.

**Chart: River Flow Characteristics during the Monsoon at Manikchak Ghat (1997-2000)**



Several major flood events have hit Malda over the span of the district's recorded history. Between 1850-1899, there were six flood occurrences, among which the floods of 1871 and 1885 were major calamities. Between 1900-1950, there were eight flood events with a recurrence interval ranging from 4-13 years. After 1950, there were two major flood occurrences in 1954 and 1969, which caused widespread devastation in the district. Since 1971, the frequency of occurrence has intensified, with floods recurring almost every alternate year. Thus, there were 21 flood recurrences between 1971-2005, among which the flood of 1998 when the Ganga rose to a high-water mark of 25.40 m and recorded its largest-ever measured discharge, was the worst flood catastrophe of the century. This was followed consecutively in 1999 by another flood which hit several parts of the district simultaneously.

Thus in terms of the duration and frequency of these flood recurrences, the district of Malda can be defined

as a chronically flood-affected area [CFAA] by criteria suggested in 1981 in the Planning Commission study on the development of backward areas in India. Observing that economic development in such areas is impeded by the frequency of heavy floods, it had been recommended then that special measures would have to be instituted to redress these problems and to promote the development of such regions.

## Recent Flood Events

Two recent major flood incidences that affected many parts of the district of Malda simultaneously had occurred successively in the years 1998 and 1999. From administrative data on the extent of flood damage during these events, which are summarised in two tables below, the resulting intensity of the flood impact on the different blocks of the Tal, Barind and Diara can be assessed.

**Table: Flood Damage during the 1998 Floods in Malda District**

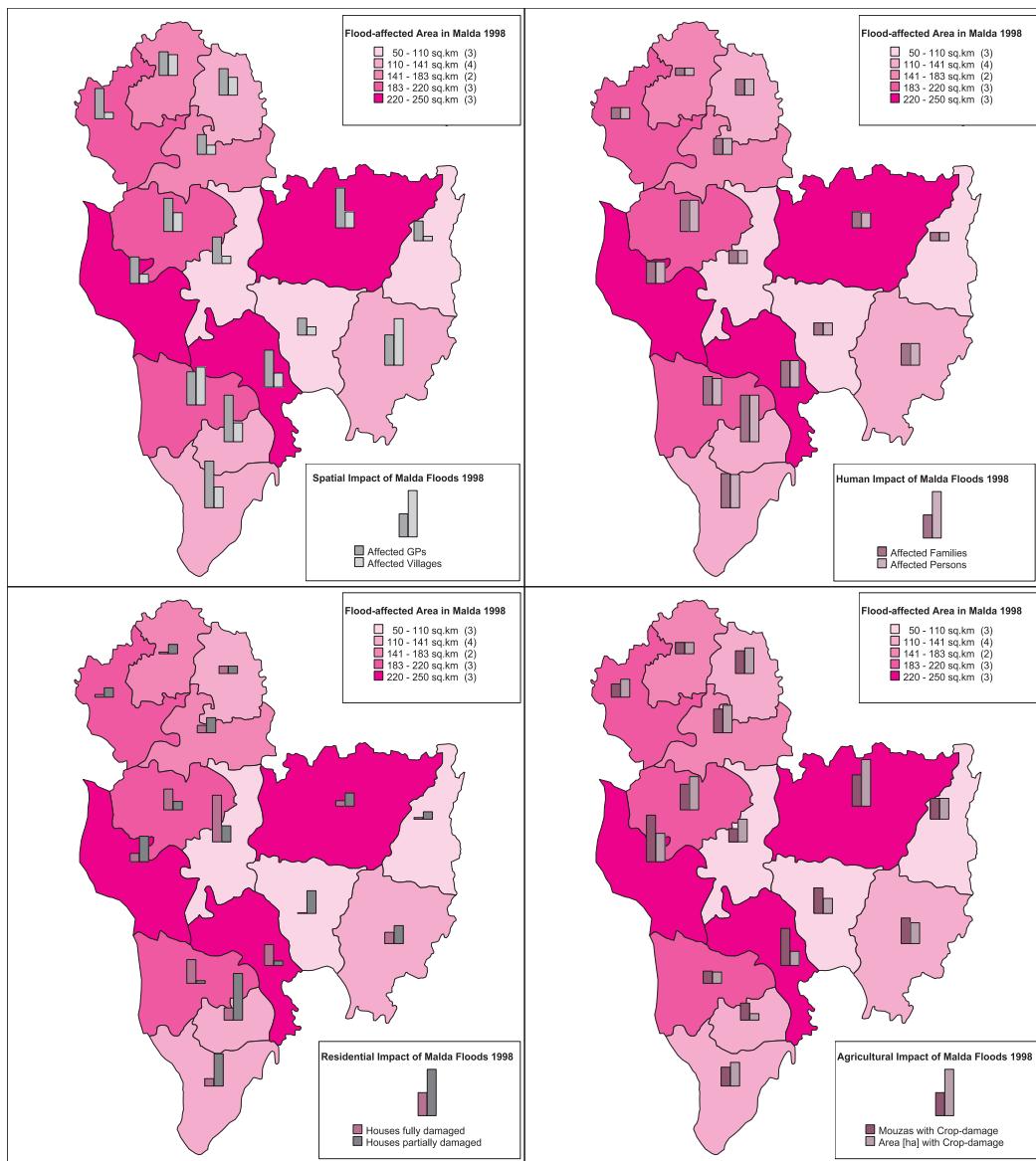
Affected Block / Municipality	Area Affected [sq.km]	GPs/ Wards Affected	Villages Affected	Persons Affected	Families Affected	Houses Fully Damaged	Houses Partly Damaged	Crop-damage Mouzas	Crop-damage Area [ha]	Human Lives Lost	Animal Lives Lost
Harischandrapur 1	171	7	213	50000	10000	3000	6000	44	5205	-	3
Harischandrapur 2	212	9	74	75000	15000	4000	6000	54	8300	-	-
Chanchal 1	111.46	8	191	107035	21407	10870	4600	91	11850	2	26
Chanchal 2	170	6	101	106000	21132	11762	9370	92	12600	1	-
Ratua 1	183	10	198	200000	40000	31075	5025	101	15000	4	-
Ratua 2	101	8	75	85000	17000	68000	10000	51	10500	4	-
Gajol	250	12	166	100611	21000	8197	7994	123	21231	3	7
Bamangola	50	6	50	55000	10640	2500	4500	84	9492	-	2
Habibpur	110	9	485	140000	28000	17000	11000	103	9500	-	-
Old Malda	77	5	91	77625	15525	1495	13970	100	7000	3	5
Englishbazar	220	11	144	170000	34125	30358	3100	146	6400	4	14
Manikchak	230	8	99	140000	28000	12509	15491	184	12860	15	4
Kaliachak 1	140.5	14	195	300000	60000	18000	28500	66	3050	18	10
Kaliachak 2	209	10	399	173000	37000	35000	1720	48	5130	10	10
Kaliachak 3	127	14	219	214664	44000	11225	19575	74	10690	7	174
Old Malda M	9.54	17	88	62325	16250	3920	11530	-	-	-	7
Englishbazar M	12.1	25	85	170000	32690	937	6927	-	-	-	-
<b>Malda DT</b>	<b>2383.6</b>	<b>179</b>	<b>2873</b>	<b>2226260</b>	<b>451769</b>	<b>269848</b>	<b>165302</b>	<b>1361</b>	<b>148808</b>	<b>71</b>	<b>262</b>

Source: *Uttarbanga Unnayan Parshad, 2001*

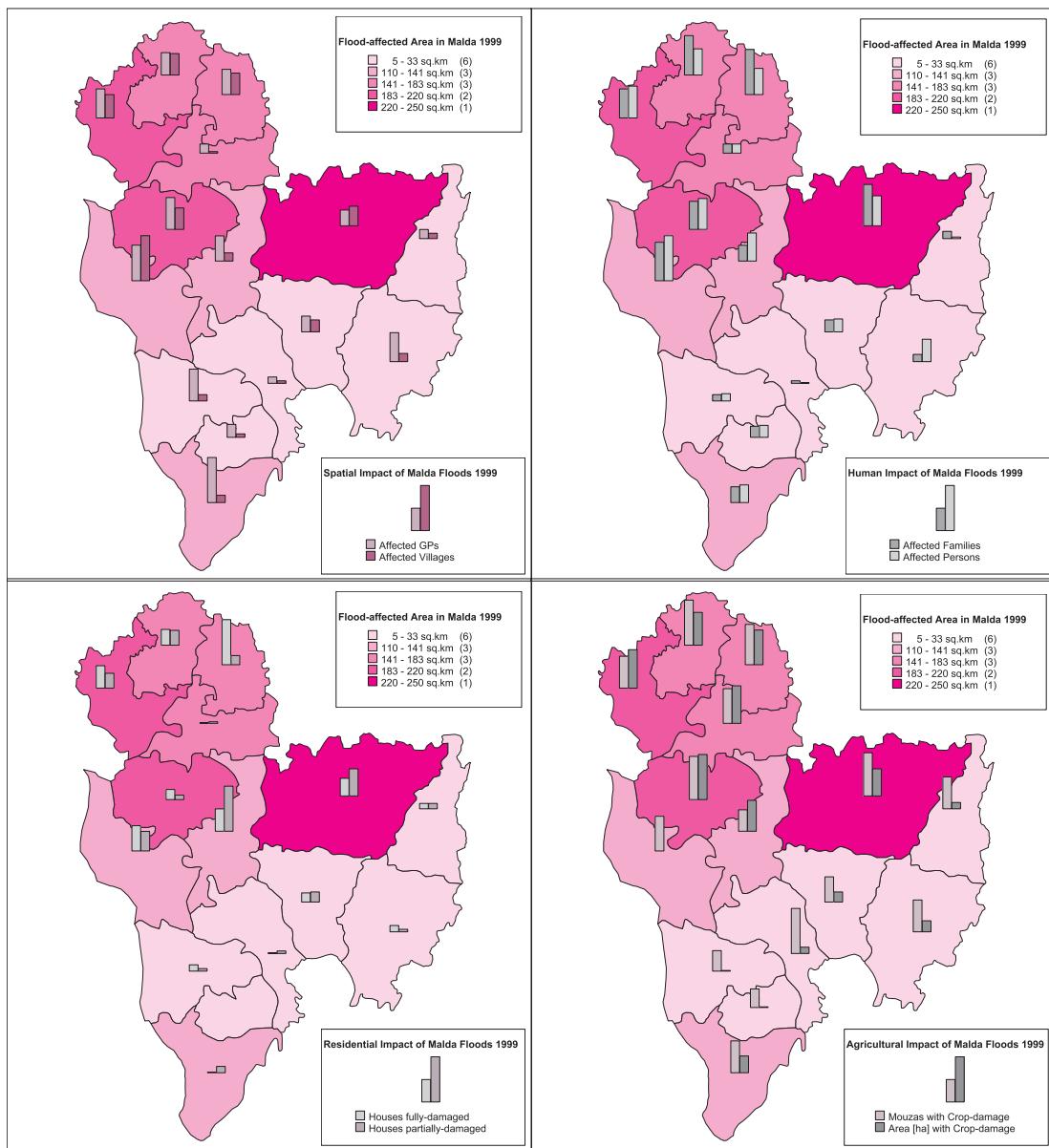
Because of the immense discharge recorded that year by the Ganga, more than two-thirds of the district was hit by floods in the year 1998. Over 22 lakh persons were directly or indirectly affected, in 2873 villages as well as in the Old Malda and Englishbazar municipalities, with nearly 4.4 lakh houses either being completely destroyed or else suffering moderate to severe damage. In spite of a flood-warning system being in position, the cost in terms of the loss of human and animal lives was also considerable. Flooding of more than 40 municipal wards in both cities was caused by backflow in the Mahananda, with the Ganga being in high spate. Although losses of human and animal life were cumulatively the highest in the Diara blocks which

had received the brunt of the flood from the Ganga, rural areas through most of the Tal and in Gajol and Old Malda also recorded loss of life because of backflow along the Ganga's main tributaries. While crop damage was extensive in all blocks of the district, covering a cumulative area of 1.48 lakh ha, the greatest damage to standing crops occurred in blocks located relatively far away from the Ganga, because of impoundment of the Tangan and Mahananda. Besides being among the worst natural calamities experienced by Malda district over the century, the 1998 floods also demonstrated the extent of vulnerability within the district caused by extreme situations when all regional rivers act in conjunction.

**Chart: Impact of the 1998 Floods on Malda District**



## Chart: Impact of the 1999 Floods on Malda District



The 1998 floods were followed the very next year by major floods again in 1999 triggered by heavy precipitation in the catchments of the rivers flowing through Malda, which affected nearly 10 lakh persons in 2000 villages spread across the district. Although the Ganga was in relatively moderate spate that year and the direct flood impact on the Diara blocks was much lower, most of the Tal and Barind blocks suffered heavy crop losses and house damage once again, because of impoundment and inefficient discharge of floodwaters by regional rivers like the Mahananda, Tangan and Punarbhaba. More than 66

wards in Old Malda and Englishbazar municipalities were affected, some remaining waterlogged for several consecutive days, and more than 1.58 lakh houses across the district suffered complete or partial damage. Thus, the entire district was affected and only the loss in terms of human and animal lives was less, relative to the 1998 floods, because of lower cumulative damage in the Diara. Such studies of flood recurrence in Malda emphasise the overall dimensions of human vulnerability in the district, where large sections among the rural population are highly susceptible to the vagaries of climate and nature.

**Table: Flood Damage during the 1999 Floods in Malda District**

Affected Block / Municipality	Area Affected [sq.km]	GPs/ Wards Affected	Villages Affected	Persons Affected	Families Affected	Houses Fully Damaged	Houses Partly Damaged	Crop-damage Mouzas	Crop-damage Area [ha]	Human Lives Lost	Animal Lives Lost
Harischandrapur 1	171	7	195	75000	25000	7000	5000	105	8038	-	-
Harischandrapur 2	212	9	218	90000	18000	10000	5000	74	9479	1	-
Chanchal 1	162	8	202	75000	28300	20000	3000	93	8490	-	-
Chanchal 2	150	3	21	28000	6000	500	700	82	9250	-	-
Ratua 1	200	10	198	88275	17655	4450	1500	101	11025	-	-
Ratua 2	125	8	81	80000	10000	10000	15000	51	7632	1	-
Gajol	235	5	177	85000	26000	8000	9000	100	6730	-	-
Bamangola	20	3	50	4500	4500	2500	2000	75	1600	-	-
Habibpur	33	9	80	65000	5000	3000	1000	74	2806	-	-
Old Malda	80	5	115	38700	7745	4000	3520	60	2546	-	4
Englishbazar	5	2	22	2000	2000	520	1080	105	1665	-	2
Manikchak	120	11	413	128135	24290	11100	6565	81	na	-	-
Kaliachak 1	41	4	35	35000	7000	150	100	43	169	1	-
Kaliachak 2	8	10	62	22000	4025	2800	900	48	244	-	-
Kaliachak 3	125	14	65	50000	10000	500	2100	74	4161	-	-
Old Malda M	8	25	41	56800	11400	8000	8000	-	-	-	-
Englishbazar M	4	4	25	75000	5000	400	1100	-	-	-	-
<b>Malda DT</b>	<b>1699</b>	<b>137</b>	<b>2000</b>	<b>998410</b>	<b>211915</b>	<b>92920</b>	<b>65565</b>	<b>1166</b>	<b>73835</b>	<b>3</b>	<b>6</b>

Source: *Uttarbanga Unnayan Parishad, 2001*

## Survey Investigations on Vulnerability

As suggested by the preceding analysis, riverine calamities have a two-fold impact on the people of Malda district. Over the wider vulnerable region spanning most blocks of the district, rural families that have suffered repeated losses of standing crops, homes and livestock have to pick up their lives all over again, while living in constant uncertainty about when the next flood event might recur. Consequently, in all blocks in the district, there is a section of rural poor whose economic situations are more or less arbitrated by nature. On the other hand, along the bankline villages of the Diara, there is another section of vulnerable poor whose lands and livelihoods have sustained permanent losses because of riverine erosion. The impact of natural calamities on this second group is far more profound, causing them to retrogress in human development terms against the general advance made by most people in the district. Since little information from secondary sources is available about the desperate situations that this group of people often face, direct investigation became necessary.

As part of a larger academic study on the problem of population and displacement in Malda district, carried out in 2001 by investigators from the Department of Economics at North Bengal University, a survey covering a sample of 250 flood-affected residents had been earlier

conducted in the Ganga left-bank GPs of Dharampur, Dakshin Chandipur and Gopalpur in Manikchak block. After having been displaced from their original homes by the recurrence of flood events in 1998, 1999 and 2001, the respondents at the time were living in makeshift hutment colonies at safer locations along public roads and along Embankment No.7 beside the Ganga - such resettlement colonies being a common sight along many retired embankments in this region. Several insights emerged from this study about the nature of ongoing flood-induced migration and resettlement in erosion-prone areas of the Ganga Diara.

Except for the Embankment No.7 colony which had come up after the 1998 floods, the other resettlement colonies had been in existence for a considerably longer period, establishing that the displacement of their residents by erosion and flood events was permanent. More than half of the resettled families were unitary, although the households were larger on the average (6.06 persons) compared to the district. The female deficit (FMR 825) was also larger than the equivalent for Manikchak block or the district, primarily because the majority of the males had yet to set up families of their own, 83 of the residents being minors. While literacy was relatively high (65%) among the respondents, a large number (43%) had never attended formal school. However, the younger generation was

more educated, either upto middle school or Madhyamik level.

All families in the resettlement colony had undergone direct asset losses of some kind, because of flood or erosion. 8 out of every 10 families had lost some or all of their agricultural land, while nearly half of them had also lost their homes. Only one family reported asset gain subsequent to the flood experience, in the form of a loan received for rebuilding its home. Most land losses had occurred near the older resettlement colony in Dakshin Chandipur. The residents of the other colonies were poorer, and few of them had consequently had land to lose. On the other hand, as their mobile assets like livestock had largely been relocated and saved, only one family reported livestock loss.

Although the sample had a total of 77 earners averaging 2.08 earners per household, female participation in earning activity was close to negligible, except for a few women engaged in *biri* binding. Consequently, each earner had to support at least three dependents. Most residents had once had cultivation as their original occupation, though only some (35%) had still retained holdings of land. Among the rest, an equivalent proportion were now drawing livelihoods from wage labour, while the remainder were engaged in sundry other occupations like services, petty trade and river-related livelihoods like boat operation. Fewer respondents had a secondary occupation, and a quarter of the resettled families depended on earnings drawn solely from a single means of livelihood. Among those who had another earning source, the majority (37%) still drew their second livelihood from cultivation while following some other activity as a primary occupation. A significant number (19%) supplemented their earnings from other occupations through additional wage labour. In general, since older resettlement colonies like the ones at Dharampur, Gopalpur and Dakshin Chandipur offered their residents more earning opportunities, the resettled families there averaged a monthly income of more than Rs.3000. This, however, was much lower than their pre-flood income. Because of the dearth of diversified livelihood opportunities, residents at the new resettlement colony on Embankment No.7 on the other hand had the lowest income.

With land units in the area having shrunk because of erosion, and wages being depressed by the dearth of agricultural work, resettled families who depended mainly on cultivation for their livelihood had the lowest post-flood earnings. The situation of families who depended on some form of riverine activity like fishing

or boat operation for livelihood had also deteriorated after the flood. On the other hand, families that drew earnings primarily from wage labour were in a marginally better situation, and families able to derive their livelihoods from multiple sources were better off still. Resettled families engaged in trade or services had the highest earnings in relative terms but were very few in number. In the older colonies, most resettled families had by then built *kuchcha* dwellings of bamboo and mud plaster, by investing Rs.10,000-15,000 from their savings. In the Embankment No.7 colony, all residents were still living in smaller makeshift huts built of flimsy bamboo and plastic that could scarcely hold back the rain. No family had been able to buy back any land, although all of them had acquired livestock ranging from cattle to goats, as a means of sustenance and additional earning. All families hoped to reclaim land one day from the *chars* that would rise subsequently from the river.

**Table : DHDR Vulnerability Survey Sites**

CD Block	Gram Panchayat	Habitation/Settlement
Manikchak	Gopalpur	<i>Mistiripara</i> <i>Jotpatta</i> <i>Gopalpur</i> <i>Kamaltipur</i> <i>Iswartola</i> <i>Udhabtola</i> <i>Hukumattola</i>
Kaliachak 2	Panchanandapur	<i>Swanitola</i> <i>Sultantola</i> <i>Kachalitola</i> <i>Hakimtola</i> <i>Vestpara</i>
Kaliachak 3	Lakshmipur	<i>Gandharitola</i> <i>Mukundatola</i> <i>Atartola</i> <i>Prolabtola</i> <i>Sarkartola</i>

## The DHDR Vulnerability Survey

During the preparation of the *District Human Development Report*, an intensive field study of flood and erosion affected areas in the Malda Diara was made on 5 March 2006, covering 130 sample households comprising 777 persons in all, drawn from various occupational groups in three selected Gram Panchayats of Manikchak, Kaliachak 2 and Kaliachak 3 blocks that are notoriously prone to floods and riverine erosion. The sample covered both cultivators and agricultural labourers, as well as respondents who are now drawing their livelihoods from other economic activities. The GPs and

settlements surveyed had all been directly affected by extreme riverine events such as erosion or floods during the previous year's monsoon.

Wider perceptions among the Diara residents about the cumulative impact of riverine calamities on their social and economic lives were assessed through an erosion impact ranking made on the basis of information collected during the survey. The overall impact rankings were determined from the factors to which each respondent attached highest importance. Land losses were thus identifiably the greatest burden borne as a result of riverine erosion by the affected population in the Diara, with over 55 percent of the respondents giving highest impact rankings to the land losses sustained in the region. Human displacement because of erosion, involving widespread resettlement or migration of the Diara population, came next on the impact ranking scale and was given highest priority by nearly 20 percent of the affected residents. Crop losses occupied third position, together with the despair and loss of hope that represented the psychological overburden of erosion calamities. However, the proportion of Diara residents that attached highest priority to these was smaller, since most residents in the region are landless and do not cultivate crops of their own. Long historical experience of living close to a turbulent river that has alternately blessed and wreaked destruction on the region appears to have given the Diara population considerable resilience. Therefore, the number of residents who felt total loss of hope was few. Livelihood and livestock losses were given priority by a smaller fraction of residents, since most respondents were poor and had little left to lose. Most either managed to save their livestock or had no livestock to lose, and were also able to find alternative wage-work which partly compensated their livelihood loss.

**Table: Erosion Impact on Diara Residents**

Erosion Impact	Ordered Ranking	% Response
Land Losses	73	56.2
Human Displacement	24	18.5
Crop Losses	7	5.4
Loss of Hope	7	5.4
Livelihood Losses	6	4.6
Livestock Losses	4	3.1
Human Losses	0	0.0

Source: DHDR Vulnerability Survey

Information was also collected during the vulnerability survey on the respondents' pre-flood and post-flood holdings of various physical assets, including houses, agricultural equipment & machinery, for-hire transport vehicles like rickshaws & *tangas*, etc., in order to assess any physical losses they may have sustained as the direct result of riverine calamities. Such reported losses were of two types, involving either

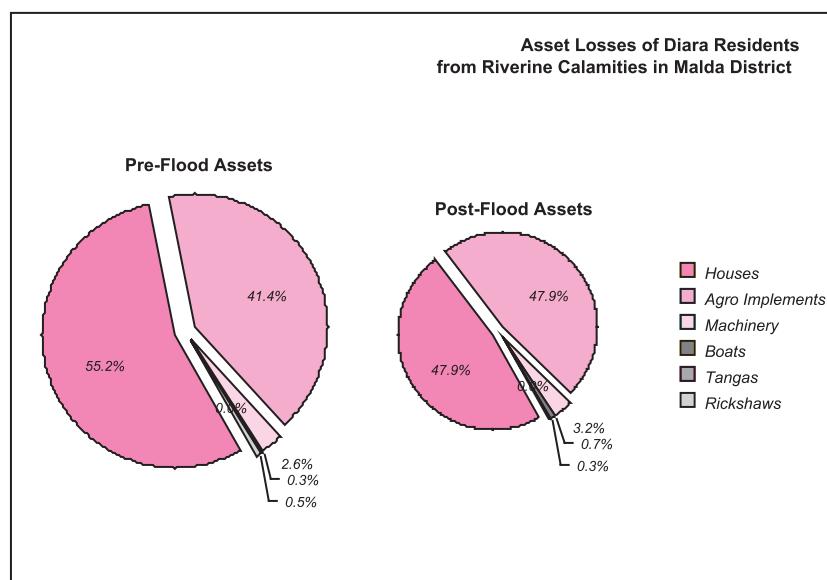
- (a) the complete destruction of an asset, such as the sweeping away of equipment by the river, or collapse of a house, or else
- (b) major damage to assets – for instance, to a house or a vehicle or equipment – in a manner such that there was substantial loss in its value.

The physical asset losses suffered by the Diara respondents, other than losses of land, were quantified cumulatively for the entire sample in terms of current value, in order to arrive at working estimates of the extent of their financial loss. The greatest depreciation between pre-flood and post-flood asset values had occurred in the case of the houses occupied by the respondent households, which had lost more than 56 percent of their cumulative value after the riverine calamities. Thus their current cumulative valuation thus stood at Rs.37.92 lakh for all survey households, down from the original valuation of Rs.87.20 lakh before the floods. Depreciation in value of agro implements was of the order of 42 percent, accompanying a loss of asset value by Rs.27.51 lakh. Despite the cumulative loss being less since few respondents had prior holdings of these, even major machinery like power tillers, pumpsets, etc, had lost 37 percent of the prior value. Vehicles like rickshaws & cycle-vans which were plied for a living by a few respondents, had similarly lost 70 percent of their prior value. However, as a consequence of the calamity, the need for boats had risen, leading to an increment in their asset value. Thus for all items for which the quantification was made, total asset losses amounted to over Rs.78.79 lakh for all households, implying depreciation in the total value of their physical assets to half of the value they had held before the calamities had struck.

**Table: Cumulative Asset Losses of Diara Residents**

Asset-type	Pre-Flood Valuation [Rs.]	Post-Flood Valuation [Rs.]	Loss Valuation [Rs.]
<i>Cumulative Value</i>			
Houses	87,19,982	37,92,000	- 49,27,982
Agro Implements	65,41,000	37,90,000	- 27,51,000
Machinery	4,04,900	2,57,000	- 1,47,900
Boats	48,000	55,000	7000
<i>Tangas</i>	1000	1000	0
Rickshaws	82,000	22,000	- 60,000
<i>Total [Rs.]</i>	157,96,882	79,17,000	-78,79,882
<i>Valuation per Household</i>			
Houses	67,077	29,169	-37,908
Agro Implements	50,315	29,154	-21,162
Machinery	3115	1977	-1138
Boats	369	423	54
<i>Tangas</i>	8	8	0
Rickshaws	631	169	-462
<i>Total [Rs.]</i>	1,21,514	60,900	-60,614

Source: DHDR Vulnerability Survey



Averaging such asset losses over all households in the sample, this implied that each Diara household had sustained a loss of over Rs.60 thousand on its average pre-flood asset holding of Rs.1.22 lakh. Since the proportion of asset loss in the case of houses and agro implements was particularly high, the degree of financial debilitation and human destitution sustained by the people of the Diara as a result of frequent natural calamities becomes readily apparent.

After the asset losses and land losses they had sustained, most marginal cultivators residing along the riverine tract had switched over to wage labour for their main livelihood, while a few now combined marginal cultivation with wage labour to make ends meet. Because of river erosion, many erstwhile cultivators in the survey region had in any case been reduced to landlessness. Thus over 92 percent of all respondent households depended on wage labour either for primary

or secondary livelihood, in contrast to which only 16 percent still practiced cultivation in any form. Only 10 respondents did not participate in wage labour in any way. Most households in this category were involved in either artisanship or trade. With the livelihood choices being limited and livelihood opportunities few, less than half of the respondents had earnings from a secondary occupation.

**Table: Livelihood Choices of Diara Residents**

Work-type	Primary Occupation	Secondary Occupation
Wage Labour	82	38
Agriculture	14	7
Artisanship	13	4
Service	6	6
Petty Trade	2	4
Miscellaneous	13	-

Source: DHDR Vulnerability Survey

Because of the overall lack of work and consequent economic pressures, the out-migration reported from the Diara region was high, and more than half of the respondent households had one or more individuals from their family working in faraway places like Kolkata, Varanasi, Mumbai or Delhi. Some of the respondents to the Diara survey had personally worked outside the district for some time, and reported that 70 percent of those who migrated from the Diara went to places outside West Bengal for work, because of the lack of local alternatives. Much of this migration was apparently seasonal, and took place during the lean season when there was a shortage of rural work. Therefore, the migrants returned during the agricultural harvest season, or in the case of Manikchak – during the mango and *litchi* season. Over the years, migration pressures were reported to have increased because of lack of irrigation in the *diaras* and the escalating cost of cultivation. The impact of constant erosion losses was also a contributing factor, since few large landholdings were left that could absorb the huge population of wage labourers. Migration pressures in the Diara are thus just one manifestation of a trend that is spreading slowly to many other parts of the district. Labour migration from the Malda district largely takes place because of economic reasons.. As one male respondent put it, “nobody would go outside to work if they could earn enough”.

**Table: Migration Pressures on Diara Residents**

Reason for	Ordered	% Response
Out-Migration	Ranking	
Livelihood	42	48.8
Marriage	15	17.4
Education	1	1.2
Service	1	1.2
<i>Nil</i>	27	31.4

Source: DHDR Vulnerability Survey

## Demographic & Occupational Change in the Diara

While the intensity of the impact that frequent riverine calamities in the Malda Diara have on the lives of people living along the Ganga floodplain is identified in these studies, the scale of this impact cannot be gauged from survey studies alone. Meanwhile, however, two notable changes in the demography of the Diara are seen to have occurred because of floods and erosion in the region. Over time, many erstwhile cultivators who had formerly farmed their own lands have been reduced to the status of landless labourers, because of economic distress. Relentlessly increasing pressure on the shrinking economic space resulting from occupational changes in the erosion-prone region have also triggered a strong migration impulse, as a result of which many residents now migrate seasonally or for longer periods to places outside the region or district.

Census figures on decadal change in the number of farm-based workers in the Diara also partially reflect the direct livelihood impact that floods and river erosion have had on them. Marginal cultivators who have been reduced to landlessness now swell the ranks of agricultural labourers, the numbers of which are now very high in the Diara tract. Local migration has also changed the gender complexion of the Diara population, because of the migration of males for work to other areas. Hence some idea of the recent scale of such changes can be gleaned from comparison of figures from the 1991 and 2001 Census for Diara villages in Manikchak, Kaliachak 2 and Kaliachak 3 that define the edge of the riverine tract, presented in the tables below.

**Table: Population Displacement in the Diaras of Malda District 1991-2001**

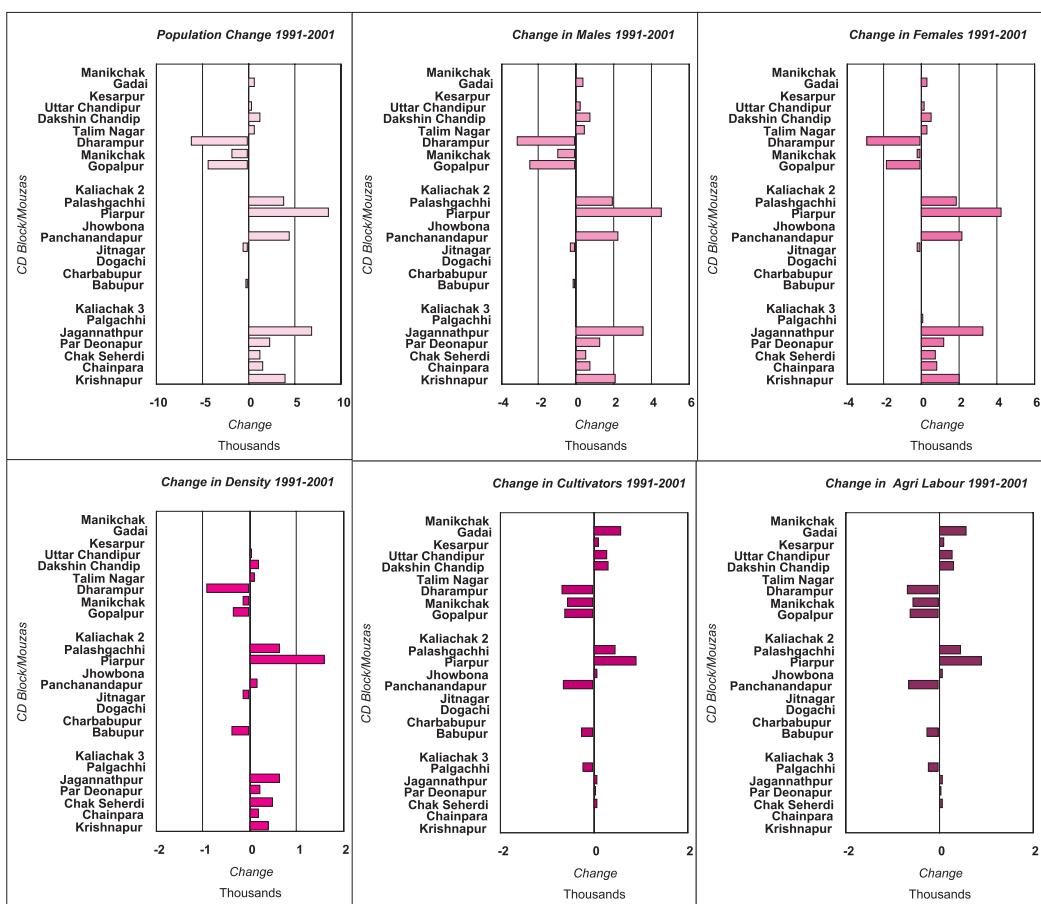
CD Block/ Villages	1991 Area	1991 Total Persons	1991 Males	1991 Females	1991 Cultivators	1991 Agri Labour	2001 Total Persons	2001 Males	2001 Females	2001 Cultivators	2001 Agri Labour
<i>Manikchak</i>											
Gadai	1474.28	1637	837	800	204	510	2469	1294	1175	190	1135
Kesarpur	685.43	949	497	452	96	210	1082	570	512	61	336
Uttar Chandipur	583.56	6517	3355	3162	792	788	7035	3649	3386	659	1095
Dakshin Chandipur	668.95	3586	1804	1782	535	514	5014	2616	2398	535	853
Talim Nagar	639.00	2546	1279	1267	251	323	3438	1779	1659	165	316
Dharampur	678.75	8882	4615	4267	796	1193	2798	1464	1334	185	509
Manikchak	1254.54	8082	4162	3290	560	1563	6280	3210	3070	297	1021
Gopalpur	1293.79	11387	6015	5372	1080	1460	7027	3544	3483	240	851
<i>Kaliachak 2</i>											
Palashgachhi	593.68	9885	5166	4719	1885	1479	13832	7186	6646	1437	1977
Piarpur	551.19	3911	2037	1874	568	410	12802	6635	6167	1593	1339
Jhowbona	2738.82	5587	2863	2724	429	676	5604	2918	2686	418	772
Panchanandapur	2301.87	16456	8514	7942	1443	2638	21017	10849	10168	1396	1993
Jitnagar	398.62	528	284	244	137	-	-	-	-	-	-
Dogachi	475.92	-	-	-	-	-	-	-	-	-	-
Charbabupur	513.01	-	-	-	-	-	178	93	85	27	22
Babupur	65.29	2052	1074	978	85	309	1799	935	864	72	55
<i>Kaliachak 3</i>											
Palgachhi	357.44	7014	3697	3317	618	660	7197	3708	3489	290	451
Jagannathpur	1039.30	5245	2717	2528	331	402	12241	6395	5846	133	495
Par Deonapur	1012.12	9582	4957	4625	1140	658	12156	6287	5869	1435	747
Chak Seherdi	277.85	4479	2326	2153	440	376	5935	2946	2989	283	477
Chainpara	737.75	3858	2016	1842	404	221	5556	2839	2717	615	263
Krishnapur	991.88	9775	5032	4743	696	329	14007	7176	6831	602	361

**Patterns of Change**

CD Block/ Villages	Change 1991- 2001 Persons	Change 1991- 2001 Males	Change 1991- 2001 Females	Change 1991- 2001 Cutivators	Change 1991- 2001 Agri Labour	1991 FMR	2001 FMR	Change 1991- 2001 FMR
<i>Manikchak</i>								
Gadai	832	457	375	-14	625	956	908	-48
Kesarpur	133	73	60	-35	126	909	898	-11
Uttar Chandipur	518	294	224	-133	307	942	928	-15
Dakshin Chandipur	1428	812	616	-	339	988	917	-71
Talim Nagar	892	500	392	-86	-7	991	933	-58
Dharampur	-6084	-3151	-2933	-611	-684	925	911	-13
Manikchak	-1802	-952	-220	-263	-542	790	956	166
Gopalpur	-4360	-2471	-1889	-840	-609	893	983	90
<i>Kaliachak 2</i>								
Palashgachhi	3947	2020	1927	-448	498	913	925	11
Piarpur	8891	4598	4293	1025	929	920	929	9
Jhowbona	17	55	-38	-11	96	951	920	-31
Panchanandapur	4561	2335	2226	-47	-645	933	937	4
Jitnagar	-528	-284	-244	-137	-	859	-	na
Dogachi	-	-	-	-	-	-	-	-
Charbabupur	178	93	85	27	22	-	914	na
Babupur	-253	-139	-114	-13	-254	911	924	13
<i>Kaliachak 3</i>								
Palgachhi	183	11	172	-328	-209	897	941	44
Jagannathpur	6996	3678	3318	-198	93	930	914	-16
Par Deonapur	2574	1330	1244	295	89	933	934	1
Chak Seherdi	1456	620	836	-157	101	926	1015	89
Chainpara	1698	823	875	211	42	914	957	43
Krishnapur	4232	2144	2088	-94	32	943	952	9

Source: Primary Census Abstracts, Census 1991 & 2001.

## Chart: Erosion-induced Displacement in Riverine Villages in the Malda Diara



The patterns of demographic and occupational change in these villages between 1991-2001 are depicted visually in the set of bar-charts presented above. While population rose in the aggregate by 25,559 persons for all riverine villages, the increase in the male population was smaller than that of the female population. Factors like outmigration, induced by land losses and losses of work in the riverine tracts, accounted for this, since the numbers of cultivators and agricultural labourers declined by (-)1857 and (-)349 in the aggregate, respectively, between 1991-2001. Population density changes in the riverine region between 1991-2001 showed mixed trends. However, only the Kaliachak 3 villages showed rising density in virtually all cases. In Manikchak and Kaliachak 2, population density alternately declined or rose between censuses depending on the location of the riverine villages relative to the erosion zone – such density declines being a markedly unusual feature in Malda district, where population has risen sharply overall between 1991-2001. Such density declines are strong

evidence of outmigration from riverine areas in the Malda Diara.

### Manikchak Diaras

The recent trend of the Ganga near Manikchak has been to attack its left bank. Through most of the riverine villages in Manikchak block, there has either been subdued increase or dramatic decline in population. Population decline has occurred mainly in Dharampur, Manikchak and Gopalpur areas, all of which, as seen earlier, are erosion-prone. In Manikchak mouza, however, the decline in males exceeds the decline in females, offering strong evidence of male outmigration from the area in the aftermath of erosion. From Dharampur and Gopalpur on the other hand, entire families have left. FMR ratios for the number of females to males in most Manikchak villages show a decline between 1991-2001, in contrast to the broad trend in the block where the FMR ratio has been rising. This pattern is due partly to the local migration of males from the erosion-affected stretch to areas where work can be found, and by the

evacuation of their families to safer inland places. Decline in the number of cultivators has occurred in all riverine villages in Manikchak, except Dakshin Chandipur. In the erosion-affected villages of Dharampur, Manikchak and Gopalpur, the decline has been noticeably sharp and is accompanied by steep decline in the number of agricultural labourers, providing evidence of increasing livelihood pressure and migration.

### **Kaliachak 2 Diaras**

In Kaliachak 2 block, the Ganga bankline has now been scoured into a concave curve by the shifting of the river. There have been declines in the population of the riverine villages of Jitnagar and Babupur, Jitnagar becoming depopulated as a result, while the new *char* land at Charbabupur has acquired new population, where a substantial number are new cultivators. Population change elsewhere in the riverine tracts of the block has generally been positive, and markedly so in Piarpur, Palasgachhi and Panchanandapur, which surround the vicinity where the Ganga had earlier swept away the villages of the erstwhile Kakribandha-Jhowbona GP. With the outer fringes of Panchanandapur now coming under attack from the river, there has been substantial concentration of population in its safer areas. In Piarpur and Palasgachhi villages, there has also been strong increase in the number of cultivators and agricultural labourers, establishing that these areas have drawn in migrants who had been displaced by erosion elsewhere. In most cases, this migration has involved the resettlement of entire families in safer areas, and only the remaining part of Jhowbona shows evidence that while their families have migrated, the male workers have stayed.

### **Kaliachak 3 Diaras**

Downstream from Farakka, the trend of the Ganga near Kaliachak 3 block for some time has been to attack its opposite bank in Murshidabad district. The *chars* that had risen on the Kaliachak side have thus been rapidly populated, leading to overall increase in the population of most riverine villages, particularly the large villages of Jagannathpur and Krishnapur. Therefore, unlike in Manikchak and Kaliachak 2 where mixed population trends were observed in riverine areas, no decreases in population have occurred in any of the bankline villages in Kaliachak 2 and population density has risen sharply

in all. FMRs in Palgachhi, Chak Seherdi and Chainpara villages have risen because of faster rates of increase in the female population, suggesting the migration of more families into these areas. In other areas, there has mainly been new settlement by males. However, except in the Par Deonapur and Chainpara *chars*, there has been a decline in the number of cultivators in the other riverine villages accompanied in Palgachhi by a decline in agricultural labourers. Most of the new population has thus had to seek livelihoods from other forms of home-based work.

In all Diara villages that have been affected recently by riverine erosion, displaced residents have built temporary homes along embankments and other highlands that offer them more security. Their houses in these congested resettlement colonies are largely constructed from panels of straw that lean upon a bamboo skeleton and need constant renewal. Drinking water was in short supply until a few tubewells were sunk recently by the local panchayats. Some resettlement colonies are built on *khals* lands that had been reassigned for this purpose by the District Administration, and are served by a few primary schools located in their vicinity.

### **Land Rights Issues on the Ganga *Chars***

Despite such hardships under which they all live, most residents are unwilling to resettle permanently at safer inland locations, mainly because of the lure of the new *char* lands that periodically rise from the Ganga shortly after the flood cycle has been completed. In the Panchanandapur area, for instance, where the bankline is presently under severe attack from the river, a large *char* has risen some distance away from the mainland at the site of Kakribandha-Jhowbona GP which had formerly been swallowed by the river. Being 'no-man's land' in a sense, such *char* lands are a prime attraction for those who can take them and hold them, because of their immensely fertile alluvial soil. Over much of the Malda Diara, these riverine *chars* are farmed by boatloads of agricultural labourers who cross over to them from both banks of the river. Other boatloaders cross the river to reap valuable consignments of tall *diara* grass, which is widely used all over the riverine region for thatch.

Farming on the *chars* is a largescale operation organised by locally-powerful farmers who have the capacity to mobilise large teams of farm labour at the going wage and can also organise the boat-loading operations that ferry them across. Describing agricultural conditions on the riverine *chars*, one powerful Panchanandapur farmer said, “The soil is so good out there that no fertilisers ever need to be used. We just take handfuls of *kalai* (*urad* dal, a lentil) and scatter them, and reap a bountiful harvest.” Many farmers hope to establish a permanent claim to the land once the *char* has stabilised, and gradually occupy the land by settling farm labour on it. These isolated *char* population serve to guard the land and the harvest, by force if the need arises. Gradually, with the elapse of time, more people cross over – some with families – and a village cluster appears, located far from the mainland, with boats as the only means of communication. However, the process of registering claims on these *char* lands after they have been surveyed by the administration takes a very long time, during which the land ‘belongs’ to whoever can sow it and the harvest can belong to whoever can seize it. Hence the situation in these riverine *diaras* is very lawless, where often the rule of might prevails over right. In the Malda Diara, such problems are compounded by the fact that the course of the deepstream channel of the Ganga constitutes an interstate boundary between West Bengal and Jharkhand, as a result of which both states have laid alternate claim to the new *chars*. Partly in pre-emption of such claims, the Jharkhand administration has thus recently occupied the new *char* at the site of Kakribandha-Jhowbona and established a few primary schools there for the *char* population, most of whom have crossed over from the Malda mainland and live in the resurrected settlements of Entajtola, Bamantola, Suvantola, etc., which had once existed in the villages of the vanished panchayat.

Although such land rights issues arise frequently in all *diara* areas on major rivers like the Ganga or Brahmaputra, the legal means for sorting them out are presently limited. The first historical attempt to regulate them through the Bengal Alluvion and Diluvion Regulation of 1825 was based on legal codification of the existing customs of usage, which distinguished land formations at the sites of past diluvion from *chars* that emerged as new land accretions from the river, under the principle that the landholder’s

tangible rights on land that had disappeared into the river were deemed to subsist when it reappeared *in situ*. Later tenancy legislations such as the Bengal Tenancy Act of 1885 and its various amendments continued to support this principle by recognizing that land rent could be abated if the land that reemerged *in situ* from the river was smaller than the land to which title was originally held. The amendment of 1938 set a timeframe for the period of diluvion over which the land right would subsist as 20 years, failing which land that reemerged from the river after this limit expired-would revert to the ownership of the state as *khlas* land.

For river *chars* that emerged because of avulsion from the river *ex situ*, the rule of usage codified in the 1825 Regulation laid that these would vest as *khlas* lands under the ownership of the state if they had emerged from a large navigable river in use as a public waterway or were separated from the shoreline by a navigable river channel, but would be treated as accretions to the property of those who held contiguous land titles or *jalkar* rights (rights of fishery), if they were formed in minor rivers and streams not used as public waterways. Abolition of *jalkar* rights during the later abolition of *zamindari* ensured that most river *chars* formed *ex situ* became *khlas* lands with ownership rights vested with the state except when they were separated from a neighbouring estate by a narrow fordable stretch of river not used as a waterway. In the latter case, they could be potentially treated as accretions to those landed estates provided other land revenue regulations were fulfilled.

In the case where a *char* has emerged near the site of prior diluvion, the owners of lands that had formerly disappeared have full rights of repossession without invoking the legal machinery of the state. Thus the repossession of the Diara *chars* in Malda by powerful groups of local farmers from either side of the river may be seen as an attempt to exploit ambiguities within the law and claim the land eventually either as a diluviated part of their holding that has reemerged *in situ* or as an accretion to their holdings separated by a fordable stream. Till such time as their claim is legally disposed of, they remain in *de facto* possession of the *chars*, planting and reaping rich harvests and earning *salami* rents by subletting the ‘right’ to cultivate. Meanwhile, the other agriculturists of the Diara, driven to economic desperation by the inexorable advance of the river, make share-cropping and rent tenancy

arrangements with them, all beyond the pale of the law. Notionally, at some point of time when the *chars* have stabilized, the question of legal ownership is eventually settled when the land is resurveyed by the authorities. However, since the processes involved are long and drawn out, it may be several years before this occurs. Till then, the 'owners' remain in possession, by force of might.

On a river that is prone to meander as widely as the Ganga, the boundary aspect brings up further contentious issues. The midstream rule is generally applied to resolve boundary issues whenever a river runs between states or districts. However, when the deepwater channel of the river begins to wander, along with the formation of *chars* and *diaras*, the territorial questions become complicated. Thus over the stretch of the Ganga that flows through West Bengal between Bhutni Diara and Jalangi in Murshidabad, there have been several past adjustments of territorial boundaries between Malda and Murshidabad districts, and between West Bengal and undivided Bihar. Between 1921 and 1931, when the main channel of the Ganga was attacking its right bank, the territorial boundaries between West Bengal and the erstwhile Santhal Parganas (now Jharkhand state) and Purnea districts of Bihar were adjusted to the advantage of Malda district. The huge river island of Bhutni Diara was a territorial gain from that time. With the reversal of that swing by the Ganga, those gains and losses are liable to swing the other way.

## Conversion of Agricultural Lands to Non-Agricultural Use

Besides the loss of cropland to the river, the economic livelihoods of certain vulnerable sections of the rural population in Malda district have come under pressure from diversion of lands that formerly supported field crops to other non-agricultural use. Parcels of agricultural land on city outskirts have been converted from agricultural to *bastu* (residential) land and brickfields that feed the urbanisation process. The development of new markets and favourable agroclimatic situations have also led to the conversion of farmland from field crops to mango and *litchi* orchards over a wide swathe of the district, yielding new profits for the fruitgrowers as well as market traders. The causes of such conversion are rooted both in the

development process as well as in the growth of market forces. But besides the many individuals who have drawn benefits from these processes, there are also many sections among the landless and the poor in a densely populated agrarian district like Malda, who suffer the inevitable consequence of displacement from the livelihoods upon which they had survived.

Over the last decade, Malda has emerged as one of the fastest growing regions in West Bengal. Rapid population growth in the district has also been accompanied by rapid urban expansion, increasing competitive pressure on the district's limited land resources. The hub of urbanisation in the district is situated in the urban agglomeration of Old Malda and Englishbazar municipalities which lie on opposite banks of the Mahananda. In 1991, several outgrowths from this urban complex into the rural periphery - such as those at Sahapur and Mangalbari-Samandai - were given the status of census towns. By the time of the Census in 2001, these had been merged into the respective cities as new municipal wards. Meanwhile the process of urban outgrowth has continued unabated, through urban extension around the new industrial estate at Narayanpur, as well as towards Amriti and Milki on the Malda-Manikchak state highway and towards Kamalabari and Jadupur on the Malda-Kolkata national highway. Landuse has been rapidly transformed on either side of these major road arteries, as residential buildings, shops and commercial establishments, factories and workshops and public buildings come up by the score. With the accompanying increase in the demand for new brickbuilt construction, several large brickfields have come up in rapid succession at strategic points along the outskirts of the cities, bringing further pressure to bear on agricultural land.

Although no settlement cluster located outside the Old Malda-Englishbazar complex has yet achieved the legal status of a statutory town, many block headquarters such as those at Kaliachak, Gajol, Bamangola, Samsi and Chanchal have developed into sprawling semi-urban settlements, and in Habibpur block, the cluster settlements of Kendua, Kachupukur and Aiho have now been identified as census towns. In a largely rural district like Malda, this 'rurbanisation' process is a concomitant of economic growth, as certain settlements develop the character and functions of towns to serve the rural surroundings. Through

most parts of the district except the sparsely-populated Barind, the village settlements are clustered relatively close with little physical distance between them. Thus, instead of particular settlements developing into towns because of the agglomeration economies of scale, the trend is for every large-sized roadside settlement to become a potential urbanisation hub. The process is unregulated and unplanned, and these minor semi-urban settlements remain undeveloped while fulfilling certain urban functions, thus being deprived of the infrastructural linkages that could help them to generate new livelihoods, activities and personal opportunities for the rural regions they serve.

In the vicinity of the cities of Old Malda and Englishbazar, the areas most susceptible to urban and industrial extension are prime croplands. Large land tracts near the cities along either side of the

Mahananda and Kalindri rivers are already occupied by well developed orchards that have been in existence for at least fifty years. Tree cover on such lands renders them unsuitable for urban conversion, therefore bringing conversion pressure to bear on the surviving tracts of farmland. Cultivation in most parts of the district is carried out on *barga* through various sharecropping and leasing arrangements. Since agricultural dependence is already high in the surrounding region, a large mass of agricultural workers can only find seasonal work. Consequently, outright sales of land that lead to its conversion to any form of non-agricultural use have a profound livelihood impact on the chains of *bargadars* and agricultural wage-workers who actually work on the land, even though the landowners might have received adequate compensation at the going market price of land.

**Table: Conversion of Agricultural Lands to Non-Agricultural Uses in Malda District 2000-2005**

CD Block	Agricultural Conversion to <i>Bastu</i> land [ha]	Agricultural Conversion to Commercial use [ha]	Annual Rate of Bastu Conversion [ha / p.a.]	Annual Rate of Commercial Conversion [ha / p.a.]
Harischandrapur 1	0.95	-	0.19	-
Harischandrapur 2	0.54	-	0.11	-
Chanchal 1	3.55	0.20	0.71	0.04
Chanchal 2	0.23	-	0.05	-
Ratua 1	2.21	-	0.44	-
Ratua 2	0.18	-	0.04	-
Gajol	9.61	7.48	1.92	1.50
Bamangola	-	-	-	-
Habibpur	1.65	0.34	0.33	0.07
Old Malda	5.85	13.01	1.17	2.60
Englishbazar	6.64	4.26	1.33	0.85
Manikchak	0.21	-	0.04	0.00
Kaliachak 1	4.27	3.72	0.85	0.74
Kaliachak 2	2.26	-	0.45	-
Kaliachak 3	-	-	-	-
<b>Malda DT</b>	<b>38.29</b>	<b>29.02</b>	<b>7.66</b>	<b>5.80</b>

Source: Office of the DLLRO, Malda

\* Figures converted from acres to hectares

Recent trends in the conversion of croplands to non-agricultural use in the different blocks of Malda district are reflected in the data above. Although the area converted appears to be small, the figures pertain solely to lands for which the mutation process is complete

and has been endorsed in the land revenue register. Since they exclude cropland acquisitions for commercial and industrial plantations and also private land transactions for which mutation is still pending, they therefore represent the tip of the pyramid.

Land conversion to *bastu* for residential purposes has occurred in virtually all blocks of Malda district, conversions of this kind being closely associated with settlement growth and urbanisation around the block headquarters. In Gajol, Chanchal 1, Ratua 1 and Kaliachak 1 & 2 which are entirely rural blocks, the extent of land conversion to *bastu* has been strong, indicating that the principal settlements there are fast acquiring an urban character. In Old Malda and Englishbazar blocks which surround the principal cities of the district, the scale of land conversion for residential purposes is seen to be pronounced, especially if it is also recalled that the combined municipal area of the two cities of Old Malda and Englishbazar already extends to 22.3 sq.km (2230 ha) after several new wards were incorporated during the past decade. Land conversion for commercial use has not been as widespread through the district, and has occurred in the surroundings of Old Malda and Englishbazar municipalities, and in Gajol and Kaliachak 1. The fact is therefore established that although several block settlements in Malda have acquired an urban residential character, their growth is not commercially driven as yet.

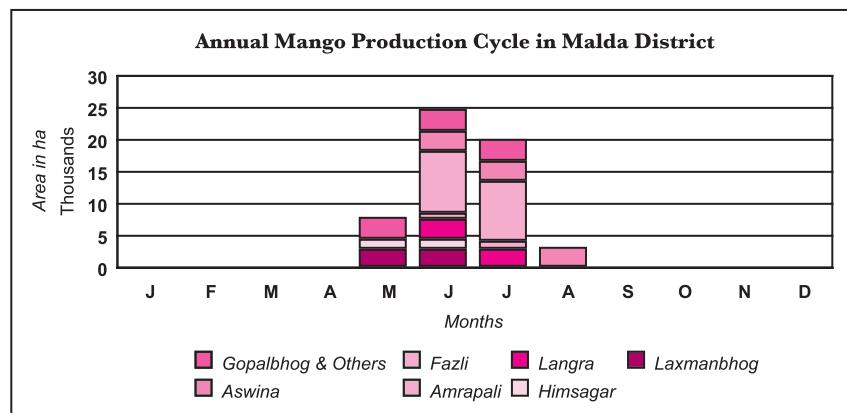
On the aggregate however, there is not a wide difference between the annual rates of land conversion to *bastu* and to commercial use between 2000-2005, even though the first process has dispersed through the district while the second remains confined to certain focal points. Since Malda district is relatively advanced in agricultural terms, many other semi-urban settlements that serve rural areas are based on service and trade activities. With the growth of the regional economy, these are likely to expand into independent growth centres. In the future, as new residential and commercial demands accrue at the rural settlements, the rate of conversion may reasonably be expected to escalate.

## Land Conversions to Orchardry

Partly as an inheritance from the old landuse patterns of Malda district, where several non-agricultural

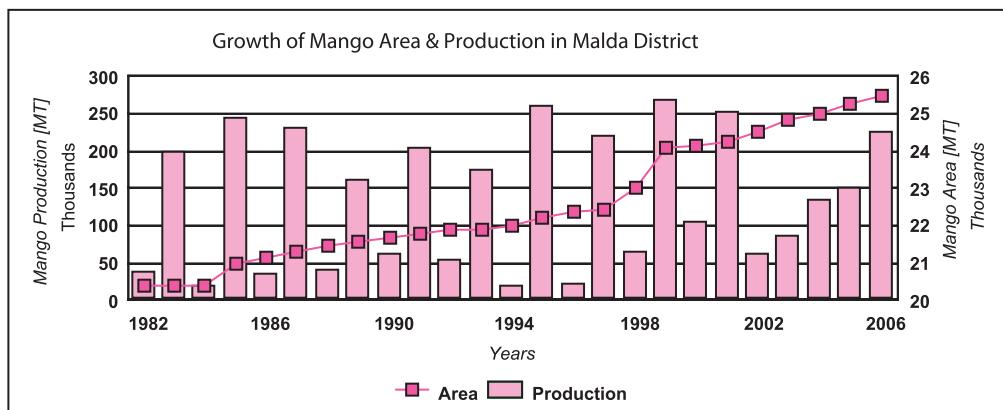
plantation activities had been historically practised in addition to cultivation of agricultural field crops, current landuse practices in the district show similar diversity. Although the indigo plantations of the 18th and 19<sup>th</sup> centuries have long vanished, sericulture and orchardry form the basis for landuse in many parts of the Diara, and other foodcrops are only cultivated in pockets. The shift from foodcrop production to the production of horticultural or plantation crops necessarily involves an entrepreneurial response on the part of rural farmers, since cultivation for subsistence is substituted by cultivation for profit. In parts of Malda where such commercial farming practices have been long entrenched, the propensity of new farmers to switch from crop cultivation to other horticultural crops is strong.

A variety of horticultural crops are grown in the district, among which mangoes are undoubtedly the best known product. Malda thus grows a range of delectable table fruit, ranging from the prized *langra* to the *himasagar*, *amrapali*, *laxmanbhog*, *gopalbhog* and *fazli* mango varieties. The estimated land area under mango orchards amounted to 25,500 ha in 2006. Mangoes grown in the district become available for processing between the months of May and August, starting from early varieties such as the *himsagar* and *laxmanbhog* to late varieties such as the *gopalbhog*. Thus, once an orchard has been planted and has matured, mango cultivation becomes a highly seasonal activity, with the activity period spanning just 4 months of the year, as indicated in the chart below. Labour demand for plucking and packing the fruit is relatively high during the peak months of June and July, but is slack in the months just before and after, and absent through the remainder of the year. Thus, conversion of agricultural land from the cultivation of field crops to mango orchardry on a large scale results in a vast scaling down of rural labour demands, and thus in a shrinkage in the opportunities for rural wage-work.



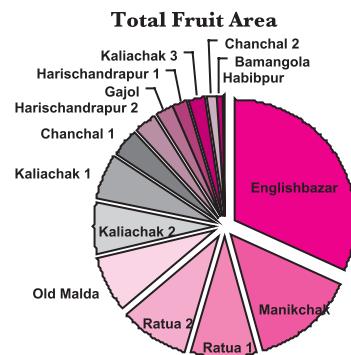
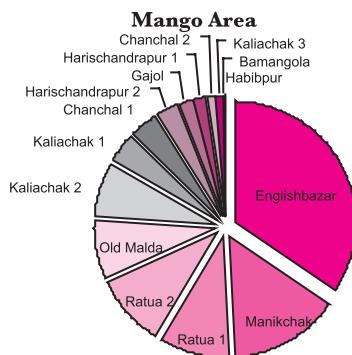
Most regions of Malda district, barring the Barind, are climatically well suited to the cultivation of mangoes, and improvements in storage and transportation have also eased the problems earlier faced in marketing the fruit. Along with Old Malda block, the Diara blocks of Manikchak and Englishbazar constitute the traditional growing area for mangoes in Malda district, together accounting for 57 percent of the total mango area and the mangoes produced by the district. From this core area, mango cultivation has spread southwards to the other Diara

blocks of Kaliachak 1 & 2, followed by the blocks of Ratua 1 & 2 and Chanchal 1 in the Tal region. While the share of the Diara region in total mango area and production has come down as a result, the six blocks in the Tal region together now account for just over 28 percent of area and production of mangoes in Malda. Old Malda is the only Barind block that grows mangoes to a significant degree. The other Barind blocks of Gajol, Bamangola and Habibpur together contribute only about 2 percent of the total mango area and production in the district.



The total land area under mango orchards in the district has thus grown steadily over the last three decades from 20,400 ha in 1982 to 25,500 ha in 2006. Over this 24 year period therefore, more than 5000 ha of croplands have been converted to orchards, at an average annual rate of over 200 ha per year. However,

there is pronounced cyclicity in the mango harvest in Malda, with wide variation between good and bad years. Thus, in a bad year, average productivity levels can fall to levels as low as 1000 kg/ha, but escalate in good years to well over 10,000 kg/ha.



Since mangoes are already grown on a wide scale in the Diara, future extension of mango cultivation in Malda district is likely to occur in the Tal region rather than the Barind, for climatic reasons. Such trends are already visible in the growth of mango area and production in many Tal blocks. Because of the building of commercial market supply chains, mangoes are now a prominent export of Malda to many other districts and states. A base for food processing industry is also gradually being laid in the district, because of which there is likely to be further future conversion of cropland to horticulture. However, the labour situation in Malda is not conducive to this. The district is heavily populated and is largely rural in character. The largescale expansion of mango orchardry through the Diara blocks has shrunk total labour demands, leading to the creation of a large marginal workforce that is already unable to find adequate year-round opportunities for work. Seasonal labour migration is high from the areas that grow mangoes, since during the off season, local labour needs are minimal. Therefore the expansion of mango cultivation has to be watched and carefully controlled.

Land conversion to orchardry in the district has accelerated after the coming of market liberalisation, and is driven by powerful trader lobbies engaged in the lucrative mango trade. Although specific data on the rate of recent land conversion from agriculture to orchardry is unavailable since such conversions are often categorised as cropping shifts rather than as landuse changes, visual evidence of the extent of conversion of croplands to orchards exists in plenty in several parts of the Tal and Diara where new plantations can be seen in profusion in the midst of arable land. In order to understand the underlying economic reasons that are driving the rapid conversion of agricultural land to orchardry, spot visits were made to several places in

Manikchak, Kaliachak 1 and Englishbazar blocks that are emerging as new centres for mango production in Malda district. During these visits, a lot of unstructured information was collected from persons directly connected with orchardry and the mango trade.

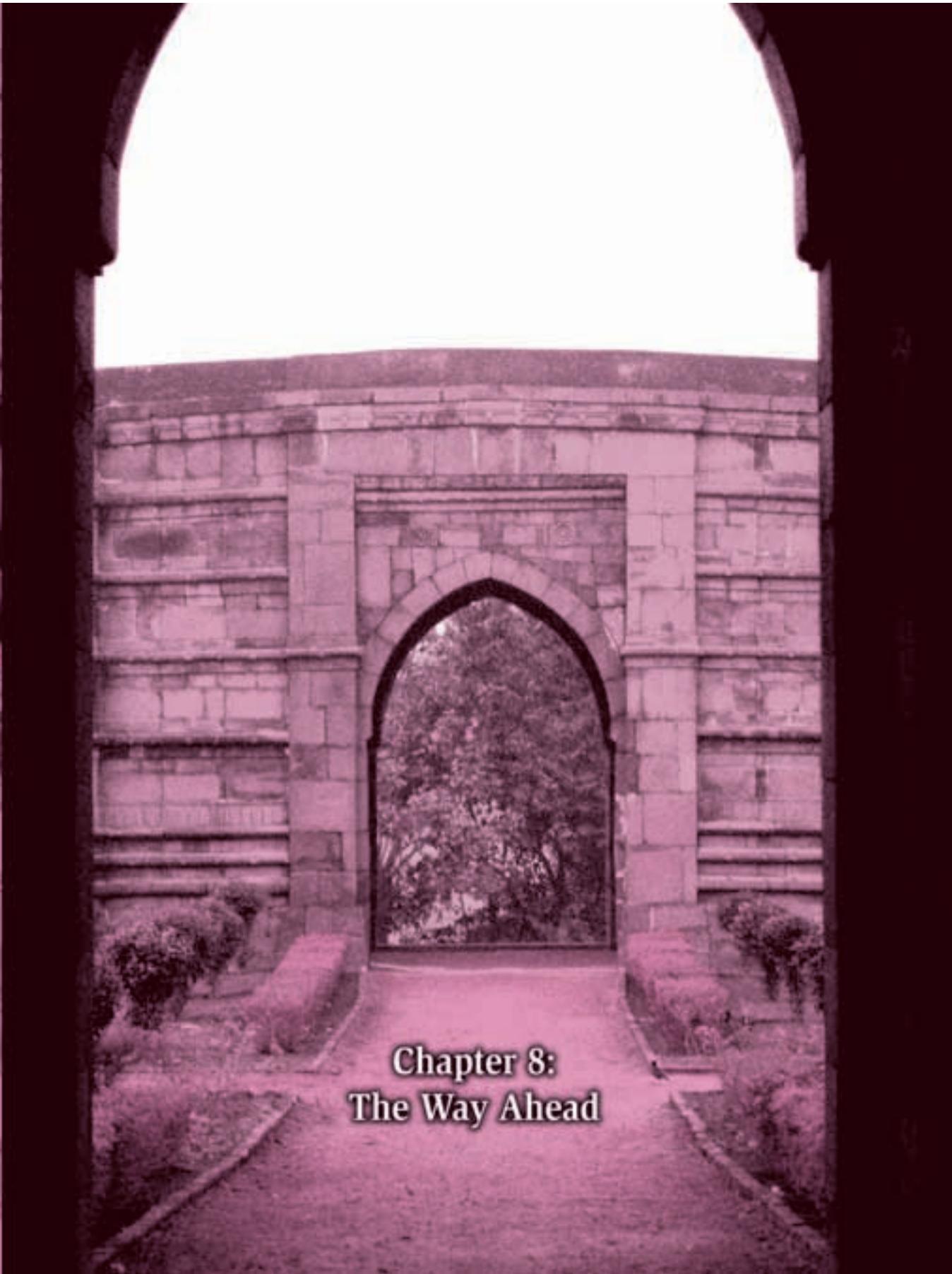
A resident of Niamatpur village in Englishbazar block reported, for instance, that he had gradually converted his 5 bigha agricultural holding into a mango orchard, commencing in 1994-95. His purpose in doing so was to meet his urgent need for cash income, since his holding was too small to yield a marketable surplus when it was farmed and only provided for the household's subsistence needs. He still cultivates wheat between the trees. Although his trees are not mature yet, they already provide him with more earnings than he had previously. Even after spending some of it on meeting subsistence needs, he is still able to earn a surplus. In Bastepur under Englishbazar block, another resident stated that he had converted his 2.5 bigha multicropped holding into a mango orchard in 2001-02, since it offered him no cash earnings under its previous use. Besides earning a cash surplus now, he stated that he is able to save considerably on the use of hired labour. When the land was farmed, he had to hire upto 20-25 wage labourers over multiple cropping seasons throughout the course of the year. As a mango-grower, his need for hired labour has now come down to 4-5 wage-workers per year, who only need to be engaged over one fruiting season.

For much the same reasons, such land conversions from agriculture to orchardry have spread into many parts of Malda district from traditional growing areas in Old Malda and Englishbazar blocks, and can now be seen as far afield as the western Harischandrapur blocks. Mango cultivation has also spread contiguously to traditional sericulture areas in Kaliachak 1 & 2 blocks,

after the silk producers came up against severe competition from Chinese silk. After the crash in silk prices, many have switched to mango cultivation. Cultivators who formerly produced field crops also find the prices of many agricultural commodities to be unremunerative, after across the board increases in the prices of agricultural inputs. Therefore, for many cultivators, mango cultivation is an option out. However, this is not the case for agricultural labour, whose livelihood opportunities are strongly dependent on the practice of multicrop farming. Therefore, in areas which have switched from agriculture to

horticulture, or from sericulture to horticulture, there has been considerable labour displacement and distress.

Both in the case of flood-induced vulnerability and vulnerability created through landuse change, the sufferers identically constitute the landless labouring population of the district of Malda. Because of the high population density of the district, their presence within the rural population is high. Development, for them, depends on their ability to find work – the opportunities for which are currently shrinking in many regions of Malda.



**Chapter 8:**  
**The Way Ahead**



## The Way Ahead

## Chapter 8

### Indexing Human Development in Malda District

Although human development describes a complex multidimensional process through which the gains accruing to a nation from economic growth and development consolidate and enhance the lives of its people, the essentials of this process are easily measured and explained by the Human Development Index [HDI] initially formulated by the UNDP while comparing human development across countries and global regions. Because of the intuitive simplicity of the concept, the HDI methodology is now widely applied also in national and subnational studies of the diffusion of human development across provinces and district clusters. The popularity of the HDI as a method for indexing and comparing development patterns lies in the ease with which three intrinsic dimensions of human development are captured within it – namely, the enhancement of human capabilities that lead to healthy and lengthened lives, the augmentation of human productivity through continuing knowledge acquisition, and the improvement of material standards of life through progressive increases in income and consumption standards. Under the UNDP methodology, these three human development attributes are captured within the HDI through their respective surrogates, namely *life expectancy at birth* as a measure of the longevity of human lives, *adult literacy rates* and *gross enrolment ratios* as a measure of education or knowledge acquisition, and *per capita GDP* as a measure of material standards of living.

Certain computational difficulties inevitably present themselves, however, when the HDI methodology is extended to index human development on a subnational or subdistrict scale, primarily because of the lack of robust databases of the UNDP surrogate indicators at district and subdistrict level. Hence, the calculation of the HDI at subnational or district level often involves an adaptation of the original UNDP conceptualisation in order to match the availability of data. Another UNDP index that is now widely accepted as a measure of levels of poverty and relative deprivation within a territorial space is the Human Poverty Index [HPI],

which reflects the exclusion suffered by certain socially vulnerable classes or communities from the general process of improvements in health, knowledge and income standards that touches the lives of the rest of the population. The use of the HPI to index relative deprivation within a district involves similar methodological adaptations of the original UNDP concept.

After due adaptation of the UNDP methodologies to fit the databases available at block-level for Malda district, an attempt has been made to index prevailing patterns of human development in the Malda CD blocks through a modified HDI that is conceptually similar to the indexes that had been used earlier in national and state HDRs in India. The major adaptations involve

- (a) the use of a *health services accessibility index* as the health component indicator within the modified HDI, in lieu of direct estimates of life expectancy at block-level which had to be foregone because of the dearth of reliable figures for infant mortality rates [IMRs] in the Malda blocks, and
- (b) the use of a *livelihood opportunities index* as the economic component indicator in the modified HDI, in lieu of direct estimates of per capita block incomes, since consolidated data on domestic product are not available at subdistrict level.

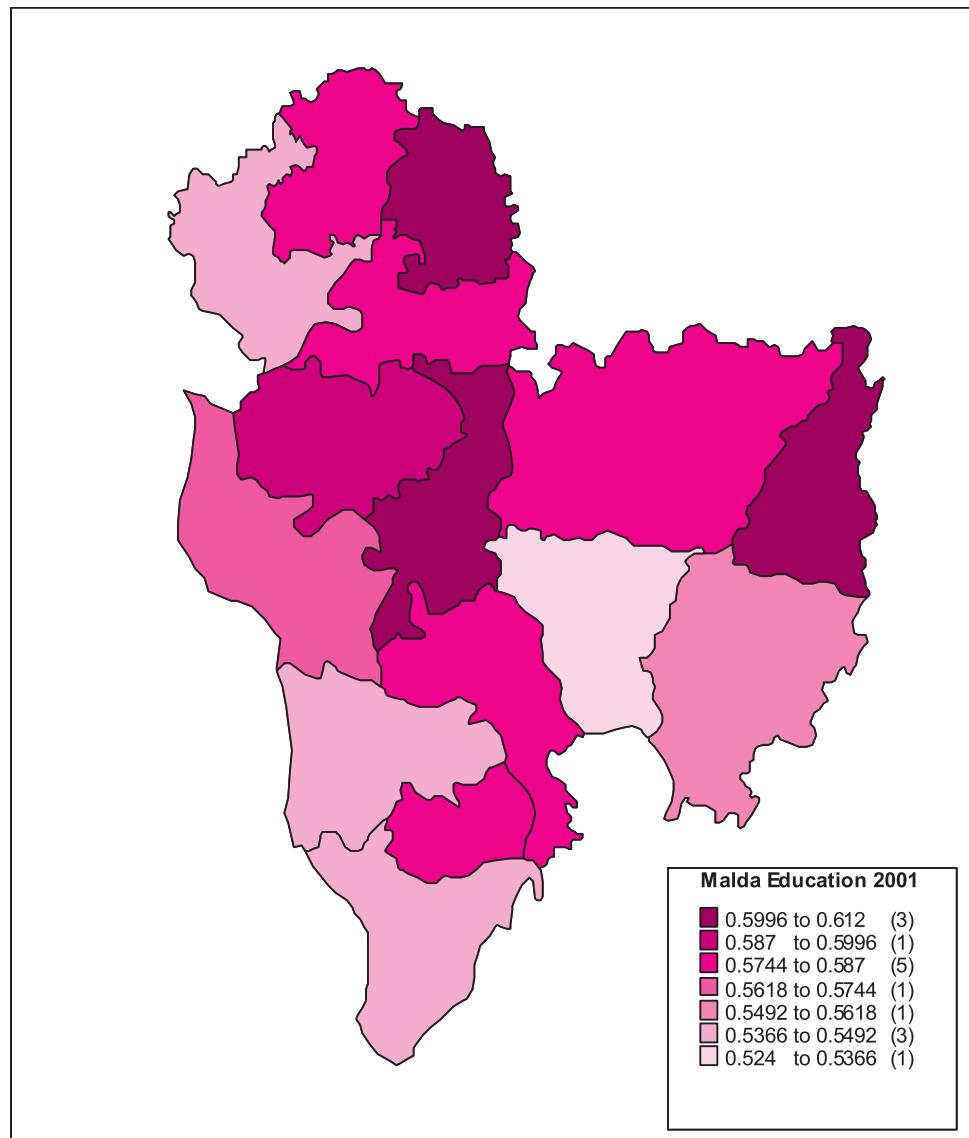
Although the *education index* used as the knowledge component indicator in the modified HDI is computed on gross enrolment ratios [GERs] for the population aged between 5-14 years and 15+ adult literacy rates, thus adopting the UNDP methodology as far as practicable, estimation of the population components for these calculations in the year 2005 has been done through exponential projection of the growth of block populations, in lieu of a direct count of the block & district populations in the age-groups 5-14 years and above 15+ years and of the number of 15+ adult literates in the blocks and district. These projected block populations are also used administratively while estimating annual coverage targets for education, rural health and other social sector programmes in the district, and thus have an officially representative

character in spite of any computational inaccuracies that may still exist.

However, no attempt is made here to compute HDIs across Malda district as a whole, because of the conceptual difficulties of projecting the required population components for small urban clusters like Old Malda and Englishbazar municipalities. Urban population growth is heavily influenced by discontinuities in net migration rates, etc., which would make this projection exercise hugely difficult to undertake. Therefore the indexes computed here are for *rural* Malda, which includes all CD blocks in the district but excludes the two major municipal towns.

Because of previously mentioned limitations in the block-level database, the modified index computations made here have been undertaken purely for the purpose of relative placement of the Malda blocks on an intercomparable human development scale, and also for identification of blocks that are particularly deprived in relation to the others and also the major sources of their backwardness. Till more accurate data become available at subdistrict level, this experimental exercise should prove helpful for human development planning in Malda district. The computations for the three component indexes and the overall HDIs and HPIs for the 15 Malda CD blocks are now presented and analysed.

**Chart : Contours of Development - HDI Component Index for Rural Education in Malda 2005**



## The Education Index

The calculation of the education index for the Malda blocks was made on a forward projection of the block-level population count from the 2001 Census, based on standard annual exponential growth rates of the respective block populations, until the year 2005 for which blockwise primary and upper primary enrolment figures are available from the DISE database. For estimating the size of population currently in the 5-14 age cohort, i.e. the age-group from which learners are drawn at the Classes 1-8 stage, standard age-group data for the district population were used, smoothed by forward projection of the blockwise 0-5 age cohorts from the 1991 and 2001 Censuses, following the informal logic that infants aged 0 years in 2001 would have just entered school-going age in 2005, while 0 age infants from the 1991 Census would have just left the school-going age cohort. No adjustments specific to intra-district migration were made, on the logic that migration of school-going children with their families would be

minimal. Children leaving their birth region after primary school to attend upper primary schools located elsewhere were specified as being residents of the block where they were currently enrolled. The Gross Enrolment Ratio [GER], which defines the proportion of the block population in the school-going age cohort that is currently enrolled at school, was then estimated for each of the 15 individual Malda blocks in 2005. Although, in case of the two Ratua blocks, the GERs so estimated appear excessively high since they exceed the ratio-value 1, it was noted that the existence of similar anomalies in block-level data for enrolments under the Sarva Shiksha Abhiyan were reported during mid-term review of the SSA programme in Malda district, so that the problem seems to be located in the enrolment figures for certain blocks rather than in the projection methodology overall. Hence no measure to correct the projected data was resorted to, in the belief that the age-projection is fairly accurate and is also representative, since it is used for targeting various social welfare programmes in Malda district.

**Table : Education Index Computations for Malda District 2005**

CD Blocks	2001 Population	2005 Projected 15y + Population	2001 % Literacy	2005 Projected 15y + % Literacy	2005 Projected 5-14y Population	2005 Total P/UP Enrolment [DISE]	2005 Gross Enrolment Ratio [GER]	Combined Education Index
Harischandrapur 1	162406	113327	44.1	37.2	36847	36606	0.99	<b>0.58</b>
Harischandrapur 2	198039	138285	40.7	34.1	44961	41679	0.93	<b>0.55</b>
Chanchal 1	174204	121569	56.1	60.6	39525	33941	0.86	<b>0.61</b>
Chanchal 2	165192	115281	44.5	38.7	37481	36299	0.97	<b>0.58</b>
Ratua 1	217356	151638	45.0	38.0	49303	49961	1.01	<b>0.59</b>
Ratua 2	160904	112318	47.8	41.4	36517	38220	1.05	<b>0.61</b>
Gajol	294715	205723	51.0	52.9	66887	56838	0.85	<b>0.58</b>
Bamangola	127252	88750	56.1	62.1	28855	23404	0.81	<b>0.60</b>
Habibpur	187650	130916	48.2	50.8	42564	33033	0.78	<b>0.55</b>
Old Malda	131255	91593	47.7	53.7	29780	19779	0.66	<b>0.52</b>
Englishbazar	226236	157889	50.4	52.0	51335	43526	0.85	<b>0.58</b>
Manikchak	214127	149450	44.1	39.0	48590	45675	0.94	<b>0.57</b>
Kaliachak 1	310935	216941	54.3	60.9	70535	53684	0.76	<b>0.58</b>
Kaliachak 2	211406	147642	46.1	47.7	48003	36944	0.77	<b>0.54</b>
Kaliachak 3	284376	198466	41.8	37.4	64528	56420	0.87	<b>0.54</b>
<b>Malda Rural</b>	<b>3066053</b>	<b>2139788</b>	<b>47.9</b>	<b>47.3</b>	<b>695711</b>	<b>606009</b>	<b>0.87</b>	<b>0.67</b>

Estimation of the 15+ adult literacy rates for each of the Malda blocks was made through forward projection of 7+ literacy rates from 2001 until the year 2005 with an inbuilt escalation factor, followed by subtraction of the total number of students enrolled between classes

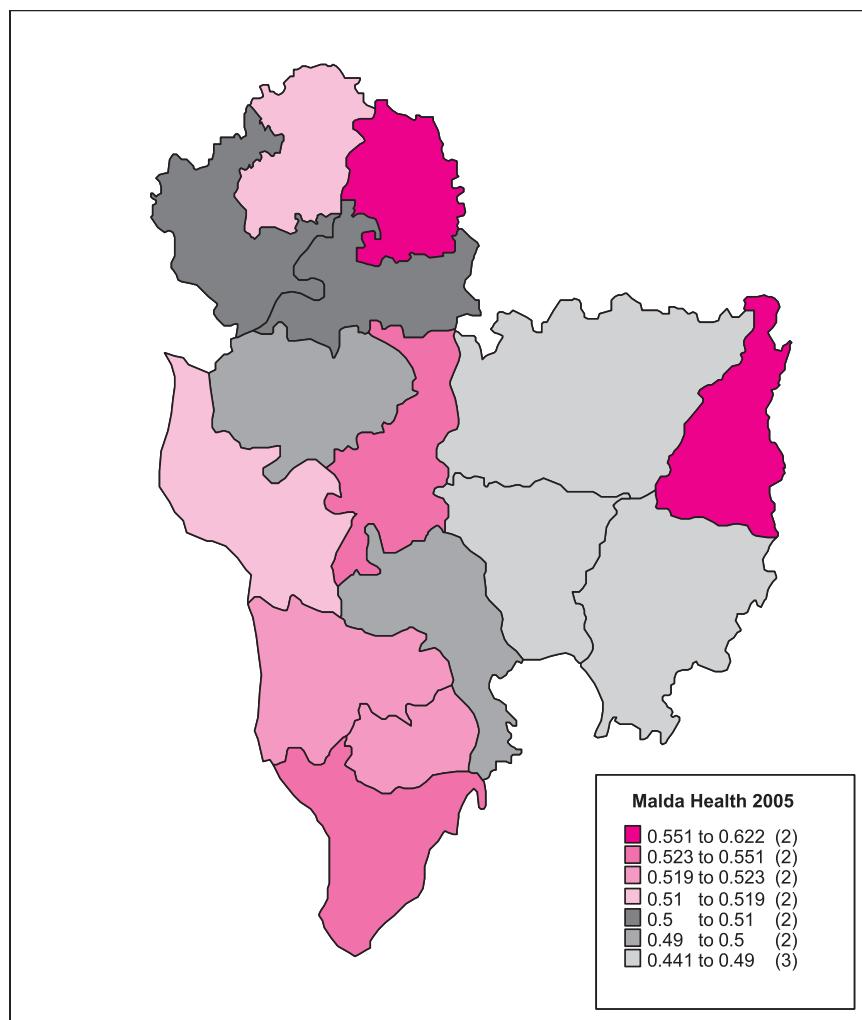
1-8 from the total so obtained in order to arrive at working estimates of the number of adult literates in 2005. The adult literacy rate in 2005 for each block was then obtained by defining the adult literates in 2005 as a ratio to the projected 15+ population in 2005

for each block. Estimation of the same indexes as combined rural benchmark rates for the district allows cross-comparison of GERs and 15+ enrolment rates across the blocks and across the district.

The education development patterns reflected in the education index values for the 15 Malda blocks have been visually presented in the map chart above. Helped by its high rate of adult literacy, Chanchal 1 is seen to be the leading block in the district in terms of the education index, despite having a lower GER than some other adjacent blocks. In overall terms however, GERs were higher in the Tal blocks than in other regions of Malda district. Since these accompanied generally low adult literacy rates, there is indication of an educational transformation across the Tal, which has yet to take root in the Diara blocks where GERs

and educational index values are generally low. .is , even though – with the exception of Chanchal 1 – adult literacy rates were generally low. The Barind blocks show considerable contrast between Gajol and Bamangola on the one hand, and .Habibpur and Old Malda blocks on the other. In terms of overall educational performance, the most developed region within Malda district comprises the central blocks of the Tal and Barind. At the other extreme, the blocks on the eastern and western peripheries of the district and along the Diara generally show educational backwardness because of the combination of low adult literacy and comparatively low GERs. However, comparatively, the worst performing block in terms of educational access is Old Malda block instead of other blocks along the district's western or eastern edge.

**Chart : Contours of Development - HDI Component Index for Basic Health Accessibility in Malda 2005**



## The Health Index

Unlike the DHDR education index which approximates the UNDP methodology of calculation, the index used for computing health-related disparities between the Malda blocks was based on a synthetic methodology to compensate for the dearth of reliable indicators for current infant mortality rates [IMRs] in the district. Besides being way off the mark, trial calculations based on ICDS records of live births and infant deaths in the first year of infancy could not include Kaliachak 3 block, where ICDS programmes have not been introduced till date. Hence, it was decided that instead of calculating life expectancies at birth as a direct method of quantifying the underlying human development attribute of a long and healthy life, a suitable proxy index should be developed from a select set of sub-indicators, chosen in such a way that they are responsive to the quality and extent of basic health services currently accessible to the population of the district. The four essential attributes that were used as sub-indicators related to the coverage of the rural population in Malda by rural sanitation and safe drinking water schemes, the coverage received by the neonatal population in terms

of immunisation services, and blockwise incidence of institutionalised deliveries. As evident from the selection, health index calculations based on this group of sub-indicators reflected a mix of general health & hygiene services and specific MCH interventions that together would also contribute to the reduction of IMR and improvement of life expectancy in the long run in the district. Thus, although measured indirectly from other attributes instead of being measured directly from IMR, the modified health index for the DHDR would pertain to the same set of factors that lead to improved health and extended life-spans, and would thus preserve the basic philosophy behind the UNDP health index.

Following this procedure, a set of sub-index calculations were made, to arrive at a health index that closely reflects the present state of health coverage and health services accessibility for the rural population of Malda district. Besides direct health services like MCH, the modified health index for the Malda blocks also included aspects of preventive and public health that partly determine the current health status of people in different parts of Malda district.

**Table : Computations of Health Services Sub-Indexes for Malda District 2005**

CD Blocks	2001 Population	2005 Projected Population	2005 Population covered by Sanitation Schemes	Sanitation Sub-Index	2005 Population fully or partly covered by D/W schemes	Safe Drinking Water Sub-Index
Harischandrapur 1	162406	178778	158120	0.88	162896	0.91
Harischandrapur 2	198039	218150	203285	0.93	214108	0.98
Chanchal 1	174204	191779	164151	0.86	187325	0.98
Chanchal 2	165192	181860	162110	0.89	170106	0.94
Ratua 1	217356	239215	210278	0.88	232982	0.97
Ratua 2	160904	177185	150410	0.85	151079	0.85
Gajole	294715	324536	265683	0.82	221617	0.68
Bamangola	127252	140006	110486	0.79	96879	0.69
Habibpur	187650	206524	176909	0.86	116371	0.56
Old Malda	131255	144492	116827	0.81	65013	0.45
Englishbazar	226236	249076	187412	0.75	214136	0.86
Manikchak	214127	235762	204005	0.87	226102	0.96
Kaliachak 1	310935	342233	294224	0.86	317869	0.93
Kaliachak 2	211406	232911	164210	0.71	223067	0.96
Kaliachak 3	284376	313088	268591	0.86	290744	0.93
<b>Malda Rural</b>	<b>3066053</b>	<b>3622664</b>	<b>2838447</b>	<b>0.78</b>	<b>2603996</b>	<b>0.72</b>

CD Blocks	2005 Estimated Live Births	2005 Estimated Target for Immunisations	2005 BCG/OPV/DPT /Measles Immunisations	Immunisation Sub-Index	2004-5 Estimated Attended Deliveries	Safe Delivery Sub-Index
Harischandrapur 1	5863	23452	14309	0.61	2202	0.38
Harischandrapur 2	7951	31804	23458	0.73	594	0.07
Chanchal 1	5610	22440	18086	0.80	1437	0.26
Chanchal 2	5964	23856	18948	0.79	444	0.07
Ratua 1	7105	28420	20150	0.70	418	0.06
Ratua 2	5101	20404	18524	0.90	647	0.13
Gajole	9080	36320	23938	0.65	2779	0.31
Bamangola	3368	13472	11399	0.84	1018	0.30
Habibpur	5292	21168	15116	0.71	1446	0.27
Old Malda	4358	17432	14680	0.84	612	0.14
Englishbazar	7183	28732	21930	0.76	1397	0.19
Manikchak	6552	26208	23498	0.89	565	0.09
Kaliachak 1	10487	41948	35791	0.85	2033	0.19
Kaliachak 2	5853	23412	18823	0.80	627	0.11
Kaliachak 3	10299	41196	35369	0.85	718	0.07
<b>Malda Rural</b>	<b>100066</b>	<b>400264</b>	<b>314019</b>	<b>0.78</b>	<b>16939</b>	<b>0.17</b>

Based on sub-indexes for the proportion of the block population receiving coverage from rural sanitation and safe drinking water schemes, and for the MCH coverage received by mothers and children in the Malda blocks in the form of neonatal immunisation

services and attended deliveries, the modified health index for Malda district can be calculated as a simple equi-weighted average of these four sub-indexes, as shown in the table below.

**Table : Health Services Index Computations for Malda District 2005**

CD Blocks	Sanitation Index	Safe Drinking Water Sub-Index	Immunisation Sub-Index	Safe Delivery Sub-Index	Combined Health Services Index
Harischandrapur 1	0.15	0.91	0.61	0.38	0.51
Harischandrapur 2	0.21	0.98	0.73	0.07	0.50
Chanchal 1	0.17	0.98	0.80	0.26	0.55
Chanchal 2	0.23	0.94	0.79	0.07	0.51
Ratua 1	0.23	0.97	0.70	0.06	0.49
Ratua 2	0.25	0.85	0.90	0.13	0.53
Gajole	0.26	0.68	0.65	0.31	0.47
Bamangola	0.65	0.69	0.84	0.30	0.62
Habibpur	0.23	0.56	0.71	0.27	0.44
Old Malda	0.33	0.45	0.84	0.14	0.44
Englishbazar	0.16	0.86	0.76	0.19	0.49
Manikchak	0.10	0.96	0.89	0.09	0.51
Kaliachak 1	0.11	0.93	0.85	0.19	0.52
Kaliachak 2	0.21	0.96	0.80	0.11	0.52
Kaliachak 3	0.25	0.93	0.85	0.07	0.52
<b>Malda Rural</b>	<b>0.22</b>	<b>0.72</b>	<b>0.78</b>	<b>0.17</b>	<b>0.47</b>

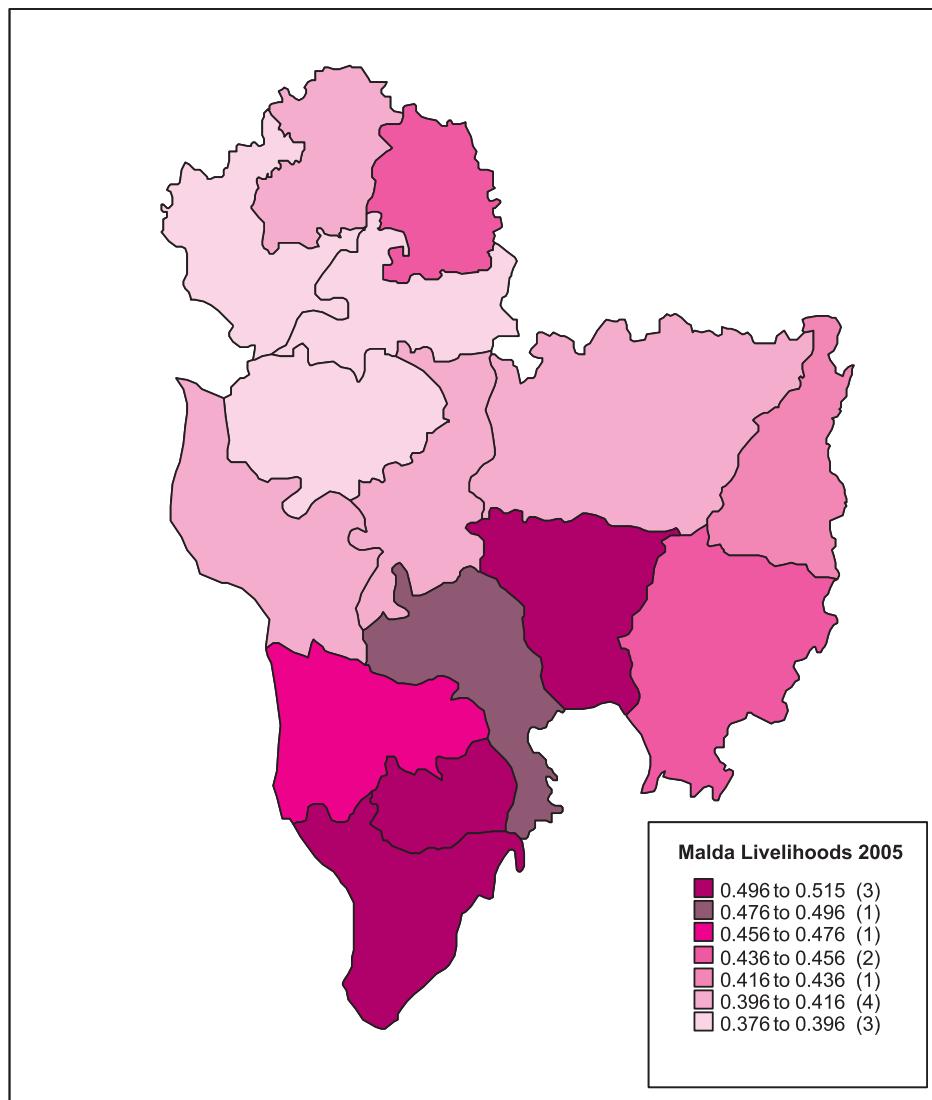
While the sub-indexed values for safe drinking water coverage and immunisation in the district are relatively high for all Malda blocks, those for rural sanitation and institutionalised deliveries are obviously on the low side. Nevertheless, there are noticeable variations in the proportionate coverage received by different Malda blocks in all indexed categories. The five Diara blocks, namely Englishbazar, Manikchak and Kaliachak 1, 2 & 3 all receive relatively high levels of coverage from safe drinking water and immunisation programmes, but record wideranging variations in rural sanitation coverage and safe deliveries. In Kaliachak 3 block, the sub-index for institutionalised deliveries is among the lowest in the district. In the six blocks of the Tal region, safe drinking water coverage is relatively good but immunisation coverage shows considerable variance. Harischandrapur 1 & 2 and Ratua 1 are relatively deprived in immunisation services. Again, the levels of safe delivery coverage vary widely across the Tal, Harischandrapur 1 and Chanchal 1 scoring commensurately better than the other Tal blocks.

Sanitation coverage in the Barind is far better than in any of the Tal and Diara blocks and is notably high in Bamangola. However, being water-poor, the Barind blocks suffer a general setback in the coverage they receive from safe drinking water programmes. With the exception of Habibpur, institutionalisation of deliveries is relatively better in all Barind blocks, when compared to the Tal and Diara. However, principally because of good sanitation coverage and relatively better rates of safe delivery, Bamangola stands head and shoulders

above all other Malda blocks in the composite health index because of good all-round access of the block population to a spectrum of health-related services. By contrast, Old Malda and Habibpur blocks are among the poorest performers in Malda district, despite their proximity to Bamangola which is the district leader in this respect. In aggregative terms therefore, the Tal and Diara show better consistency in the level of health service access, while the Barind on the whole lags behind in most health related spheres because of the inconsistency of coverage patterns across the blocks.

The regional patterns revealed by the index map for health service accessibility differ quite strongly from those for education, except in Chanchal 1 and in the central Tal region. The development of education in the district has improved educational accessibility in the Tal and Barind, creating a large response from learners, as reflected in high GERs. This has not, however, occurred in health accessibility, in which the Barind blocks lag considerably behind the other Malda blocks, with the notable exception of Bamangola. Again, unlike the Tal region, the Diara blocks show a generally deficient human development response in terms of improved educational opportunities, particularly in Kaliachak 2 & 3. However, the accessibility of health services in the Tal blocks is notably better than in the Barind. Only Bamangola, Chanchal 1 and Ratua 2 blocks appear to be consistent performers in both human development aspects, while the relative positions of the other Malda blocks vary rather widely.

**Chart : Contours of Development – HDI Component Index for Livelihood Opportunities in Malda 2005**



## The Livelihood Index

Because of the lack of firm statistical estimates of the block-level domestic product, the livelihood index used in the calculation of the modified HDI for Malda makes a total departure from the methodology used in the UNDP Human Development Reports. Unlike the UNDP method, where the quantification of the current material standards enjoyed by the target population is income-based, the alternative livelihood index used in modified HDI calculations for Malda district is opportunity-based and relates to current work and livelihoods of the people of Malda. Insofar as the livelihood choices made by the people determine their income scale, the surrogate index developed for Malda

district still relates eventually to the material standards enjoyed by the people of the district in their daily lives, and thus remains close in spirit to the UNDP formulation, without having to depend on direct quantification of the value produced by the block and district economy.

Since the livelihood index is opportunity-based, blocks that offer a wider range of employment possibilities have a higher work participation rate [WPR]. Accordingly, the WPR indicator can be measured directly from Census work participation data. However, work participation yields different incomes to those who participate in regional work opportunities on a regular basis, and those who participate casually as occasional or marginal workers. As noted elsewhere in this report

in the discussion on economic livelihoods, there is now enormous population pressure on agricultural land in most parts of Malda othe than the Barind blocks. Consequently, new livelihood opportunities in the agricultural blocks are mostly of a marginal kind. It therefore appears reasonable to include the distinction between main and marginal workers in evaluating new livelihood opportunities in the district, since the creation of opportunities for main work holds greater economic significance than the expansion of marginal livelihoods. Accordingly, the blockwise proportions of main workers

to the total workforce has been included in the computation of the livelihood component index. Again, in a land-scarce and highly populated district where the rural occupational distribution must turn gradually towards non-farm work, the proportion of *other workers*, i.e. non-farm workers, serves to identify blocks where such a transition has already commenced. Hence, blockwie ratios of other workers to the main workforce have been included in the computation of the livelihood opportunities index. The results of the computation are presented below.

**Table : Livelihood Opportunities Index Computations for Malda District 2005**

CD Block	2001 Population	2001 Total Workers	2001 % WPR	2001 % Main Workers among Total Workers	2001 % Other Workers among Main Workers	Livelihood Opportunity Index
Harischandrapur 1	162406	52392	32.3	78.4	12.8	0.41
Harischandrapur 2	198039	82862	41.8	60.1	10.8	0.38
Chanchal 1	174204	61599	35.4	77.8	18.3	0.44
Chanchal 2	165192	64584	39.1	67.0	10.9	0.39
Ratua 1	217356	74539	34.3	68.1	15.2	0.39
Ratua 2	160904	59240	36.8	72.0	13.8	0.41
Gajol	294715	122374	41.5	70.8	9.5	0.41
Bamangola	127252	52211	41.0	71.8	12.4	0.42
Habibpur	187650	88103	47.0	70.8	17.2	0.45
Old Malda	131255	52455	40.0	78.0	36.4	0.51
Englishbazar	226236	75968	33.6	81.1	29.4	0.48
Manikchak	214127	79791	37.3	65.7	17.6	0.40
Kaliachak 1	310935	180285	58.0	69.6	25.0	0.51
Kaliachak 2	211406	91145	43.1	71.8	27.7	0.48
Kaliachak 3	284376	132670	46.7	70.5	37.4	0.52
<b>Malda Rural</b>	<b>3066053</b>	<b>1270218</b>	<b>41.4</b>	<b>71.0</b>	<b>20.9</b>	<b>0.44</b>

From the resulting index, it can readily be seen that most of the Tal blocks have generally lagged behind in the creation of new work opportunities, despite the advances they have recorded in health access and education. Conversely, the performance of blocks that have lagged behind in education is generally strong in the sphere of extension of livelihood opportunities. Since in comparative terms, the greatest extent of livelihood development has occurred in the blocks of the southern Diara, the rest of the Malda blocks have lagged behind in this respect. This position becomes abundantly clear from visual examination of the index map for livelihood development.

## Modified HDI Calculations for Malda District

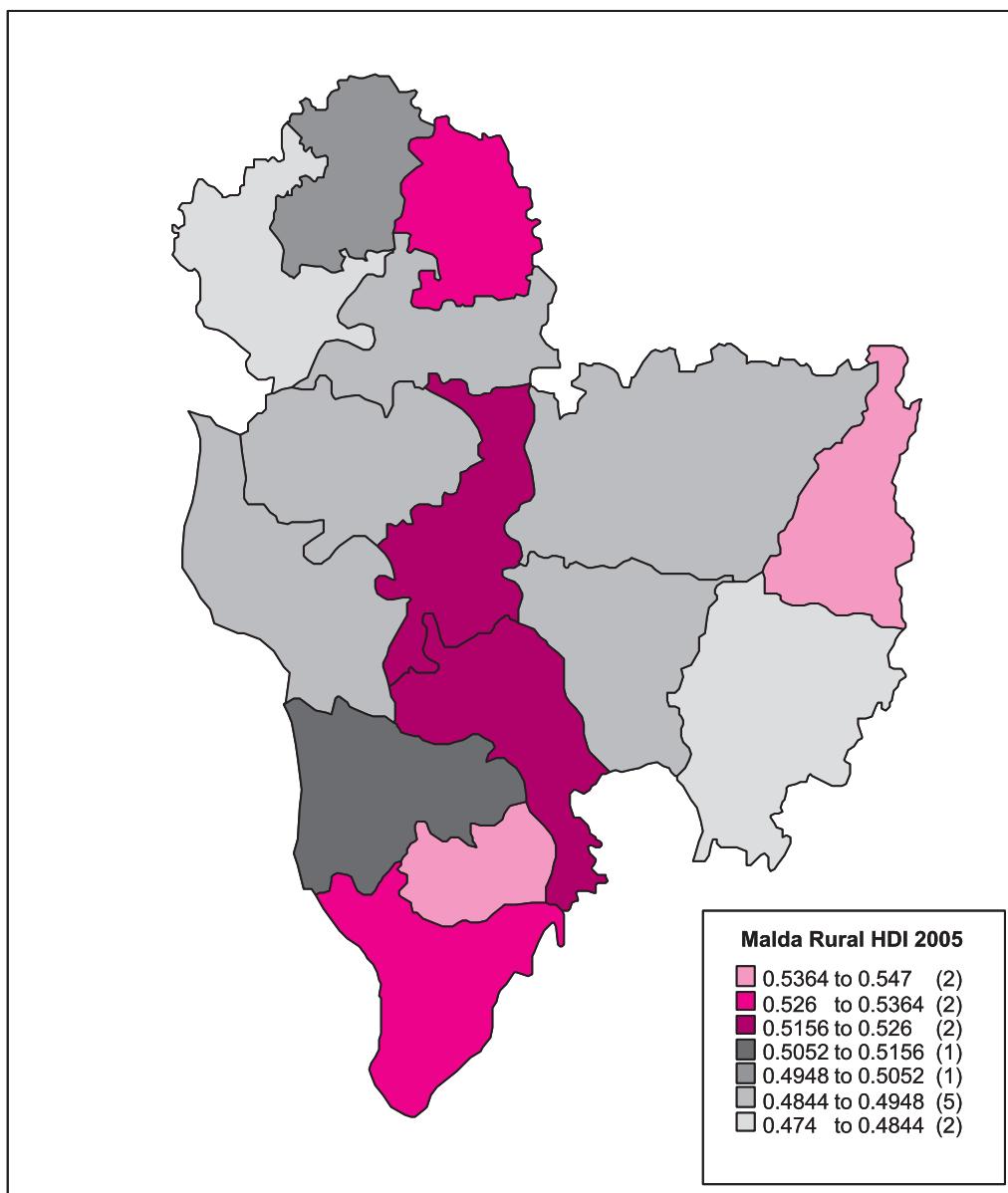
With values for the three component indexes for educational access, health access and livelihood opportunities having been computed through the process described above, it now becomes possible to compute the modified human development indexes for the 15 Malda blocks and to visualise their patterns of dispersion across the district. This is accomplished through the maps and charts presented below. Since the modified HDI coefficients represent the combined impact of educational development, healthcare

improvement and livelihood extension in different blocks of Malda district, it becomes possible to closely examine the impact of development processes on the regional patterns of development within the district in terms of the impact that these have on the lives of the people of the district.

To identify pockets where the development process has created relative deprivation and vulnerability, recourse

is made to the human poverty analysis presented after the discussion on the Malda HDIs. Thus while the HDI coefficients represent the level of achievements made by every block in the district, the HPI coefficients represent corresponding patterns of deprivation. The reorientation of human development plans for the greater benefit of the people of the district can only be made after due examination of both trends.

**Chart : Contours of Development – Modified Human Development Index for Malda Blocks 2005**

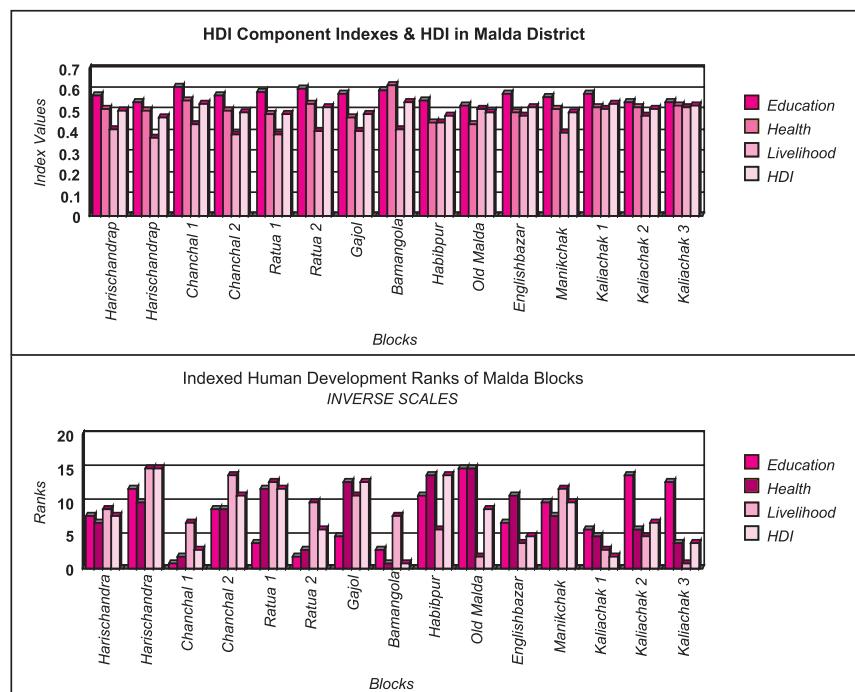


As described earlier, the HDI coefficients are computed as an unweighted average of the three component indexes for education, health and livelihood achievement presented above. As seen from the visual patterns displayed in the index map above, the current patterns of human development in Malda district indicate the existence of a considerable degree of inter-block disparity within the district, which affects large parts of the Tal and Barind regions adversely. Three pockets or loci with rapid rates of human development have gradually emerged at three locations in the district – these are at Kaliachak 1 in the Diara which has now become the principal hinterland for the city of Englishbazar, and at Bamangola in the Barind and Chanchal 1 in the Tal. However, the hinterland effect can only be observed in blocks contiguous to the District

headquarters, because of the lack of urban development elsewhere in the district. Although development disparities in Malda district are not wideranging, because of the overall lack of development in the district, two blocks to lag at some distance behind the rest in terms of human development. These are Harischandrapur 2 in the Tal region, and Habibpur in the Barind. In Harischandrapur 2, the principal reason for this regional position is the overall lack of livelihood opportunities, since educational and health access in the block is relatively satisfactory. In Habibpur, the lag in development is rooted in both low health accessibility and low livelihood opportunity. Other regional patterns visible in the HDI index map may now be analysed more thoroughly.

**Table : Modified Human Development Index [HDI]  
Computations for Malda District 2005**

CD Block	Education Index	Services Index	Health Opportunity Index	Livelihood Modified HDI
Harischandrapur 1	0.579	0.511	0.412	0.501
Harischandrapur 2	0.547	0.500	0.376	0.474
Chanchal 1	0.612	0.551	0.438	0.534
Chanchal 2	0.576	0.507	0.390	0.491
Ratua 1	0.589	0.490	0.392	0.490
Ratua 2	0.611	0.532	0.409	0.517
Gajol	0.583	0.474	0.406	0.488
Bamangola	0.601	0.622	0.417	0.547
Habibpur	0.552	0.445	0.450	0.482
Old Malda	0.524	0.441	0.514	0.493
Englishbazar	0.580	0.493	0.480	0.518
Manikchak	0.567	0.510	0.402	0.493
Kaliachak 1	0.581	0.521	0.509	0.537
Kaliachak 2	0.539	0.519	0.475	0.511
Kaliachak 3	0.540	0.523	0.515	0.526
<b>Malda Rural</b>	<b>0.580</b>	<b>0.473</b>	<b>0.444</b>	<b>0.444</b>



**Table : Index Ranks of Malda Blocks 2005**

CD Blocks	Education Index Rank	Health Services Index Rank	Livelihood Opportunities Index Rank	Human Development Index Rank
Bamangola	3	1	8	1
Kaliachak 1	6	5	3	2
Chanchal 1	1	2	7	3
Kaliachak 3	13	4	1	4
Englishbazar	7	11	4	5
Ratua 2	2	3	10	6
Kaliachak 2	14	6	5	7
Harischandrapur 1	8	7	9	8
Old Malda	15	15	2	9
Manikchak	10	8	12	10
Chanchal 2	9	9	14	11
Ratua 1	4	12	13	12
Gajol	5	13	11	13
Habibpur	11	14	6	14
Harischandrapur 2	12	10	15	15

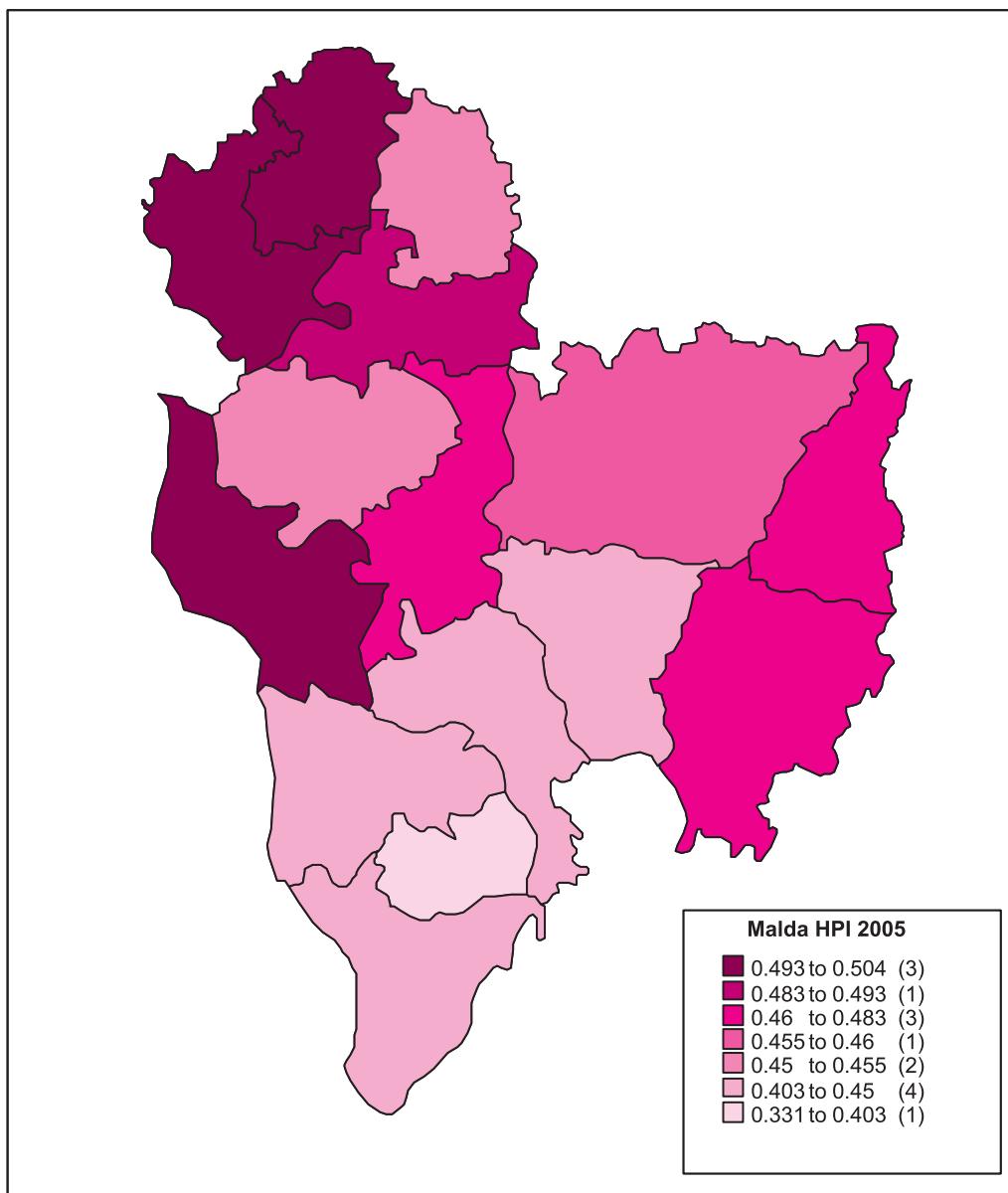
As remarked above, something fairly unique about current human development patterns in Malda is the lack of glaring inequalities between blocks. Thus the HDI index coefficients for the 15 blocks all lie within the relatively narrow range of 0.474-0.547. One principal reason would account for this is overall lack of development. In the *West Bengal Human Development Report 2004*, Malda district was identified as being

among the most backward districts in the state, in human development terms. Thus the narrow range between block HDI coefficients identifies virtually all blocks in the district as being backward, with relatively little that separates them. However, when the three HDI components are viewed discretely, it is seen educational inequalities are narrowest, falling in the range 0.524-0.612, inequalities between blocks is widen in the case

of health (0.441-0.622) and livelihood opportunities (0.376-0.515). However, the index-wise rankings of blocks for the three component indexes and for HDI are informative, and are useful for identifying outlier blocks. In the table and barcharts for index rankings, the two leading blocks in Malda district, namely Bamangola and Chanchal 1 are seen to have benefited from their high rankings in nearly all HDI components. Conversely, Harischandrapur 2 block that ranks lowest in HDI terms has low rankings across most HDI components.

In broad regional terms, the blocks of the Diara are relatively better placed, with distinctly better ranks despite relatively poor levels of educational access. Their advantage lies particularly in better livelihood opportunities. Although blockwise performance across the Tal and Barind is more mixed, the Tal region suffers distinctly from its limited livelihood opportunities. On the other hand, across most of the Barind, basic health access is poorest, despite the fact that Bamangola – the leading block of Malda district in human development terms – is located here.

**Chart : Contours of Development - Human Poverty Index in Malda  
2005**



**Table : Modified Human Poverty Index [HPI] Computations for Malda District 2005**

CD Block	2001 Population	2001 % Illiterates	2001 % Non-Workers	2001 % Agricultural Labourers among Main Workers	% Marginal Workers among Total Workers	% Rural Families in BPL category	HPI Index	HPI Rank
Harischandrapur 1	162406	65.3	67.7	47.2	21.6	47.6	0.499	2
Harischandrapur 2	198039	69.0	58.2	34.9	39.9	50.0	0.504	1
Chanchal 1	174204	54.5	64.6	34.3	22.2	50.0	0.451	9
Chanchal 2	165192	65.0	60.9	38.7	33.0	43.9	0.483	4
Ratua 1	217356	64.7	65.7	37.4	31.9	25.6	0.450	10
Ratua 2	160904	62.3	63.2	38.7	28.0	38.4	0.461	6
Gajol	294715	58.3	58.5	35.2	29.2	46.5	0.455	8
Bamangola	127252	53.1	59.0	40.0	28.2	49.9	0.460	7
Habibpur	187650	59.9	53.0	39.6	29.2	49.0	0.461	5
Old Malda	131255	60.9	60.0	32.8	22.0	39.2	0.430	12
Englishbazar	226236	59.1	66.4	32.0	18.9	40.0	0.433	11
Manikchak	214127	64.9	62.7	50.6	34.3	33.8	0.493	3
Kaliachak 1	310935	56.5	42.0	16.5	30.4	20.0	0.331	15
Kaliachak 2	211406	63.3	56.9	27.5	28.2	35.0	0.422	13
Kaliachak 3	284376	67.2	53.3	15.3	29.5	36.0	0.403	14
<b>Malda Rural</b>	<b>3066053</b>	<b>52.1</b>	<b>58.6</b>	<b>32.0</b>	<b>29.0</b>	<b>38.8</b>	<b>0.421</b>	

Although the *human poverty index* [HPI] used for Malda district is a modified form of the HPI defined by the UNDP, it indexes the same attributes of human development, namely, the persistence of poverty, distributional inequalities, etc. The modifications were primarily necessary in order to fit the index to the available block-level database. As visible in the table above, the attributes covered by the modified HPI are the proportionate presence of illiterates and non-working sections within the block population, the proportions of agricultural labourers among the main working population and of marginal workers to the total working population in each block, as well as the proportion of rural families listed under the BPL (*below the poverty line*) category in the block population. The modified HPI is derived as a simple average of blockwise values of these attributes. As all HPI components are negative attributes, the HPI rankings have an *inverse* character, i.e. the blocks ranked highest in HPI-terms have the highest levels of human poverty, while those ranked lowest are least poor.

Examination of the HPI indexes estimated for the Malda blocks again shows that there is little that separates them since the index range is relatively narrow at 0.331-0.504. However, Kaliachak 1 with an

HPI value of 0.331 is a noticeable outlier among the rural blocks, all other blocks being considerably poorer. In regional terms, human poverty is deepest through most of the Tal and adjoining Manikchak. The Barind also fares relatively poorly, with the exception of Old Malda block. Perhaps the most paradoxical position is the one occupied by Bamangola block. Ranked highest within the district in human development terms, Bamangola also has relatively high levels of human poverty, presenting something of a development dilemma to district policy planners.

## The Way Forward

Presentations of the *Draft District Human Development Report* for Malda district were made at two workshops organised at the district headquarters in the months of September and November 2006. These were attended by a large group of stakeholders comprising members of the Zilla Parishad and Panchayat institutions, officers of the District Administration and the line Departments, executives from the Municipalities, Block Development Officers and other Block representatives, Principals and Faculty from higher education institutions and schools in the district, representatives from regional NGOs and

voluntary organisations, in addition to members of the DHDR Core Groups who had assisted in report preparation. A special presentation was also made to members of the District Planning Committee at a special meeting of the DPC. The object of these discussions was ultimately to synthesise the elements of a human development strategy for Malda district.

The district of Malda has made notable strides in many development spheres over recent decades. Among these are agriculture, horticulture and food processing, manufacturing and rural industry as well as communications and road infrastructure. However, its performance in the three core human development areas of education, public health and livelihoods has had to negotiate the twin challenges posed by rapid growth of the district population, and, shrinkage of the land unit per farm family. Since urban growth has been limited to the two main cities and the livelihood profile is primarily rural, the main challenge before human development planners in Malda district will be to provide essential development services and infrastructural inputs to the people in a highly decentralised rural framework. Substantial resources have to be mobilised for this, which have to be allocated with considerable farsight and wisdom to build a development platform that meets the aspirations of the district population.

Because of the composite character of human development, another challenge before human development planners will be to coordinate the development activities of several administrative agencies and departments, so that the benefits from each development programme or scheme reinforce each other. For this a process of dialogue will have to be initiated between the departments and the people so that regional development needs are met holistically. The existence of a strong decentralised framework of Panchayat institutions in the district forms the network through which this can be achieved. However, within this framework, the chain of dialogue shall have to reverse direction to some extent, from the 'top-down' process that has existed till now. The conceptualisation of this process rests on devolution of more powers to institutions of local governance as also to civil society groups and organisations that share their vision and their common stake.

Among the peculiarities that define the current

development situation in Malda many are rooted in cultural and regional heterogeneity. As a result of this, the regional development approach to be followed has to be tuned to these regional and cultural situations. The cultural constituents of the district population, for instance the Muslims or the SC and ST group, follow a set of traditional norms that defines their distinctive identity. Yet their human development needs have homogenous content, requiring the provision of health services, education and vocations that lift them out of the common trap of rural poverty. A social consensus built around this human development strategy can potentially overcome the hurdles imposed by certain cultural codes and conventions. The ultimate beneficiaries of this would be the women of the district, who presently share a common plight despite belonging to heterogeneous groups and communities.

In keeping with several alternative visions of development objectives, such as the millennium development goals (MDGs), the HDI measures and the education for all (EFA) programmes for universalisation of human resource development, this consensus in the case of Malda can be prioritised around the three simple goals of

- accelerating the spread of education and improving the retention of learners within the district school system
- improving the health status of the district population by enhancing the access that people have to modern health care services, and outreaching to communities and groups that still live in isolation
- using the benefits that flow from educating the district population and improving its level of health and well being as the foundation for a skill development programme that gradually draws landless sections of the rural population into non-farm activities that have a potential to grow because of the comparative and locational advantages of Malda as a district.

The elements of these core strategies are outlined in the three sections that follow below.

## **The Sphere of Education**

Although Malda still lags behind many other West Bengal districts in the sphere of education, the growth

of primary schools and primary enrolments in recent times has been impressive. High pupil-teacher ratios [PTRs] in primary education indicate that there is no dearth of rural learners, and also that conservative norms such as those that once kept girls away from school have undergone substantive transformation. However, high PTRs are also a symptom that the district school system has been over-extended to absorb the mass of new learners, without substantial enhancement of either the school infrastructure or teaching staff. Ultimately, as seen in Malda district, increased primary enrolments are followed by subsequently high dropouts at the upper primary and post-primary stage, because of such *ad hoc* responses from within the public education system. Even so, because of factors like the rapid growth of district population which have also led to a younger-aged population overall, a large number of children in the district are still out of school. There are also certain regions in the district – the *chars* and *diaras*, for instance – where many children are compelled to remain out of school because of communication impediments. Thus, despite the apparently satisfactory evolution of primary school education in Malda district, the infrastructure for primary schools will have to undergo substantial expansion if the current PTRs are to be brought down to more reasonable levels.

In primary education, the rate of completion is low at class IV level and even lower at the upper primary stage. Low retention rates in the school system are attributable to the decline in the quality of education as the pupil load expands, as well as limited infrastructural facilities, staffing inadequacies, etc. The rate of expansion of upper primary and secondary school institutions has not kept pace with the expansion of primary enrolments. Hence, considerable dropouts occur at the transitional stage, since the existing upper primary and secondary school institutions lie at much greater distances from the places where the new primary learners reside.

Urban schools are more favoured in this respect since they have lower pupil loads, better PTRs and proper infrastructural amenities. The urban sections that can afford to pay higher user charges also have the choice of sending their wards to private schools where standards and facilities are even better. Since very few rural learners in Malda can afford to relocate to urban

areas in pursuit of a better education, most students in Malda district still find that the portals of formal education close upon them after they have acquired a few years of rudimentary education. In the long term, the adult population of the district formed when these age groups have grown to maturity is therefore constrained to remain under-trained and under-skilled. While special education programmes, such as the establishment of SSKs and MSKs under the Sarva Shiksha Abhiyan, have improved enrolment and retention ratios in school education in Malda district, these do not provide the level of training that would equip rural learners to move into new vocational spheres. As a result – unless basic changes are made within the education strategies for the district – the working population of the district shall continue to crowd into unskilled and under-skilled rural jobs, instead of fully participating in the process of human development that would enable them to break out of the traditional rural work-roles of their parents and predecessors.

Ultimately, the institutional framework for education in Malda district will need to be synchronised to the needs of a large mass of new rural learners, for which the present school infrastructure is inadequate. Since substantial expansion has occurred at the base, at the level of primary school enrolments, forwards planning of secondary and tertiary level institutions becomes necessary for the educational system to have the continuing capacity to absorb new students. At present, the structure of schools in Malda district is unbalanced and there are too few HS schools to be able to cater to the needs of the aspirants. The infrastructure for school education therefore needs to be rationalised with more secondary and HS schools being established to match the earlier expansion of school infrastructure at the base.

The present programme approaches to education under EFA, SSA and the Shishu Shiksha Karmasuchi of the State Government are focused primarily towards increasing enrolment at the base. Given the critical livelihood situations confronted by Malda, mere fulfilment of short term enrolment targets cannot be a viable foundation of public education programmes that must meet the needs of the people. A more integrated approach is therefore called for, which visualises the future human resource needs of the district and expands secondary and tertiary education accordingly. As part of such an approach, the SSKs and MSKs that currently

operate in Malda district will have to be brought into the formal school system under the leadership of the panchayats. Although they have contributed strongly towards the retention of learners, midday meal schemes in Malda have been functioning for some time without adequate infrastructure. Each school must therefore provide separate shed facilities to accommodate these, from available sources of funding. Additionally, the ICDS programme for pre-school education need to be strengthened to provide a basic orientation to the first-generation learners.

Special educational needs exist in SC, ST and Muslim dominated areas, which are not adequately covered by the programme approach. Improved retention of girls within the school system is essential for reversing age-old social practices like early marriage and improving gender security. Conspicuous regional imbalances are visible at present in the allotment of educational facilities at secondary, HS and collegiate levels. This leads to inadequacy of higher educational opportunities, particularly in regions like the Barind. The development of tertiary facilities for education in Malda district must match the size of the block and district populations, for whom many more educational opportunities need to be created. A strong tertiary education programme that includes vocational elements can also check the trend towards out-migration of unskilled youth, while improving the employability and earning potential of the youths of the district.

## The Sphere of Healthcare Services

In the public health sphere, Malda currently suffers from serious spatial limitations within its health infrastructure. Most of these problems are rooted in the recent upsurge in population growth across the district, and in the difficulties in communication experienced in certain regions. The present distribution of public healthcare facilities follows an administrative model that is increasingly inadequate to meet the emerging healthcare needs of the district population. Basic health services, such as nutrition, immunisation and sanitation are also inadequate, leading to high incidence of preventable diseases. MCH service delivery is also relatively poor, particularly in the case of institutionalised deliveries.

The health problems of the district are also aggravated by social and cultural factors, such as the high incidence of early marriage and multiple fertility, as well as high

maternal mortality. The problems of undernutrition of children are also concomitant to this, and have a highly damaging impact on the health profile of the district. Given the high incidence of malnutrition in certain parts of the district and its strong correlation with rural poverty, the supplementary nutritional programme in Malda should be extended to cover the nutritional needs of children suffering from Grade 2 malnutrition, in addition to children suffering from Grade 3 & 4 malnutrition.

Many administrative measures that have an important bearing on the improvement of public health targeting are currently neglected in Malda district. Although an effective Civil Registration System is the backbone for focused health intelligence and healthcare planning, the implementation of the registration system in Malda district is weak. A wide gap shows up, for instance, between the targets for children to be immunised set by the Health Department officials in the district on the basis of ELA methodology, and the projected birth rates for the district that are furnished by the State Bureau of Health Intelligence. While as a direct consequence, the high achievement levels for immunisation recorded departmentally in the district are immediately called into question, attention is also drawn to the large mass of rural children who currently miss out on these vital health services. The administration of health services needs to be tightened considerably, if the current position is to be reversed. Effective monitoring of the district health intelligence system is necessary, with strict enforcement of basic requirements that an Eligible Couple & Children Register be maintained at SC-level in all blocks of the district. Simplification of procedures for registering births and deaths under the Civil Registration System can also improve the collection of health intelligence in the district.

The delivery of health services in several parts of Malda district is restricted by the inaccessibility of the regions to be served. Flooding and waterlogging in many parts of the Tal seasonally interferes with the accessibility of the health sub-centres that have been established to meet the needs of the people. In the face of communication difficulties, ANMs seldom visit such areas and doctors are reluctant to reside at the health centres where they have been posted, preferring instead to stay elsewhere. In many cases, accessibility can be improved by the development of road

communications in such isolated areas. Inaccessibility in the *char* areas is, however, of a special order, since the people residing on *chars* remain cut off from all health services provided by the State. An extension health approach therefore needs to be adopted to meet the needs of such areas, where residents currently have difficulty in accessing the referral health system.

To check the very high rates of maternal and infant mortality that still prevail in Malda, very strong emphasis has to be laid on the institutionalisation of deliveries. At present, people living in urban areas and in blocks contiguous to these urban areas have alternate access to private healthcare facilities. Such alternatives are not available to other rural residents in the district. To redistribute service loads and to reduce the burden on District and Subdivisional hospitals, the PHCs and SCs have to be equipped to provide more health services locally. Local NGOs may also be assigned the responsibility of transporting pregnant mothers for improving the rate of institutionalised deliveries. Although current schemes like the Janani Suraksha Yojana are expected to improve the rate of safe deliveries in the district, their impact may not be noticeable until sufficient time has elapsed. Therefore, incentive-linked schemes like TBA or SBA will play a vital role in improving institutionalised delivery.

Current sanitation standards in Malda district are highly inadequate. The sanitary mart scheme has not met with success, because the providers have not been able to match the local demands that are being driven by the provision of subsidies. Floodplain areas in the district have low levels of sanitation coverage, even though they are especially prone to the seasonal onslaught of water-borne diseases. Arsenic contamination of drinking water sources also poses a growing health hazard in the Diara blocks and Habibpur. The supply of arsenic-free drinking water to all rural households and especially at local schools is therefore a prime necessity. Groundwater-based drinking water schemes have limited viability in the Barind, because of low water tables and the composition of regional soils. After completion, the tubewell schemes become dysfunctional within a few years. A more longlasting solution can be provided instead through effective rainwater harvesting and secure storage systems that maintain water purity.

Extension of this scheme into the sphere of surface irrigation will also improve the recharge of local aquifers and wells.

The health impact of seasonal migration of labourers from different parts of Malda district to distant regions in search of work needs to be assessed immediately. At present, such migration has reached high volumes but is not monitored. The returning migrants bring a variety of contagious diseases back with them that can spread quickly among the local population, who have low resistance to them. A system of health monitoring for migrants should therefore be instituted which conducts general checkups as well as compulsory blood tests, etc. during the exit and reentry of migrant workers.

## The Economic Sphere

Perhaps the most testing challenges faced in Malda district today are in the economic sphere. The district is land-scarce, it has a rapidly growing population, and its principal economic sector – namely, agriculture – has reached a point of saturation and thus has limited capacity to absorb new workers. While to the east of the district, the Barind region is water-scarce and produces a single annual crop, the fertile Tal region is prone to monsoonal water-logging and resulting crop losses. While outside the Barind, there is little scope now for expanding irrigation, irrigating the Barind poses a major technological challenge because of regional topography and the limited accessibility of groundwater. Diversions of agricultural land to commercial cultivation, most notably of mangoes, has had a labour-displacing effect across Malda and also threatens the food security of the district. Labour absorption in the orchard sector is highly seasonal, while the land diversion is permanent. Thus in recent years, a sizeable section among the population that has entered working-age has only been able to secure seasonal or marginal livelihoods. Since rural wage-rates in the district too are low, being driven down by the excess local supply, a significant proportion of rural households in each block live at levels close to absolute poverty, with poverty incidence being highest through the Tal blocks.

Meanwhile, despite small beginnings in the Kaliachak artisanal areas and the Narayanpur industrial estate, the dispersal of non-farm activities across the district has been weak. Malda suffers from having its economic

resources locked within the basket of agriculture. The potential for artisanal and industrial development across the entire district needs to be seriously explored, given the strategic location of Malda and its pool of growingly literate workers with very low wage demands.

Although a trend towards seasonal out-migration of labour from Malda district to places that offer higher wages or regular work is now strongly visible, particularly in certain blocks of the Tal as well as the Barind, this does not provide the ultimate solution. Worker migration brings in sociological problems, gender and family insecurity as well as the threat of epidemic diseases and HIV/AIDS. Incidences of illegal border trade and trafficking of women have also occurred recently under the guise of out-migration for jobs. The current livelihood crisis in Malda therefore needs to be tackled within the peripheries of the district, by redirecting labour from purely agricultural activities into non-farm work. Vocational education programmes have a strong role to play here, as well as the development of an agro processing sector in Malda, linked to its agricultural and horticultural economy. Artisanal activities such as sik production and weaving, which had once given Malda such importance in global trade, need to revitalised and integrated into the district economy. The establishment of a separate district board for sericultural and artisanal handicrafts can provide a strong beginning.

Nature too has not been kind to Malda district. Frequent ravages by floods and river erosion take their toll on agricultural productivity and livelihood opportunity, besides robbing affected rural families of assets, homes and livelihoods. The process of erosion is inexorable since it relates to the longterm shift of the course of the Ganga. Nevertheless, the largest impact of the river shift has largely fallen on the Malda Diara, commencing from Manikchak and continuing upto Kaliachak 3. Unless the river finds equilibrium again soon, the portents of this are ominous. The Diara is the most populated portion of Malda and has the highest densities of population. Protracted natural calamities have been experienced in the region before, and have been recorded in its history. Through their present recurrence, such calamities draw urgent attention to the longterm need for resettlement and rehabilitation of the Diara population.

Among the new initiatives for bringing the people of

the district into the development process as partners, the SHG programme stands out and holds greatest potential. So far, the SHG movement in Malda has been in a formative phase, where the focus has principally been on group formation. A large number of SHGs have now come into existence, many of which involve rural women. However, now that such groups exist, they can no longer be ignored during the development activities of Government departments. There is therefore overwhelming importance in progressively drawing the SHGs into economic activities, through provision of technical support and micro finance. Capacity-building activities also need to be conducted for the SHGs in order to train them for performance of a future economic role. SHG training has to be flexible and need-based, and must include market linkage, infrastructural support and financial assistance towards risk management. The *self-help* approach can be built on further if each Government department engaged in rural development activities also forms its own beneficiary groups, who can join the capacity-building initiatives and training programmes.

An important key that is vital to the stabilisation of rural livelihoods in Malda district and to unleash the full productive potential of the district's rural economy is the technical ability to manage water needs in the Barind. So far, the approach to surface water irrigation has been piecemeal in nature and many river-lift irrigation [RLI] schemes in blocks like Ratua 2 are now lying defunct. Evidence from the old history of Malda shows that for the Barind region to rise to its full potential, the storage capacity of the land must be increased through check dams and construction of surface water tanks that intercept monsoonal runoff and store the water for meeting lean season needs. Adoption of the micro watershed approach is closely linked to economic rejuvenation of the Barind, the full potential of which has not been realised till date.

The antiquity of Malda as the centre of the old civilisation of Gaur gives the district vast tourism potential. Malda also produces a variety of artisanal products that can be profitably linked to the tourist economy. So far, the lack of good communications infrastructure and the dearth of tourist facilities and information has impeded the development of this sector. Adoption of a modern approach to tourism can offer a solution, through the development of tourist

circuits that traverse the historical sites of Gaur, Pandua and Jagjibanpur, besides offering interesting explorations at potential ecotourism sights like Nayabad in Habibpur. Perhaps the greatest tourist attraction in Malda is held by sites along the river Ganga, the potential of which has so far remained unexplored. A glimpse of the mighty river in full flow and of the *chars* and *diaras* and the unique ways of life

and ancient crafts that still survive along the river from Manikchak Ghat to Kaliachak can be provided comfortably to the tourists by revitalising river navigation. Besides drawing economic dividends to the Diara communities who have so far been excluded from many development programmes and benefits, such an approach can provide a local solution to the problem of unemployment.

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