



**DISTRICT  
HUMAN  
DEVELOPMENT  
REPORT  
UTTAR DINAJPUR**



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

*District Human Development Report: Uttar Dinajpur*

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Government of West Bengal

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**Foreword**

For over three Decades, planning efforts in West Bengal have focused around an alternative model that seeks to bring about development equity through the reduction of disparities between the State's rural and urban areas. The primary instruments for this have been the principles of development, *decentralisation, devolution, and participatory inclusion*, which have fostered the partnership between planning institutions and the people, reflected in the Panchayat experience in West Bengal. As many independent studies have shown, the success of West Bengal in securing livelihood stability, in uplifting rural literacy standards and in improving agricultural productivity is associated closely with the strength of this progressive partnership.

However, planners in the State have been aware that although these achievements appear impressive in aggregate terms, they have sometimes been uneven at regional level, and that not all parts of the State have been able to share in equal measure in the fruits of success. Since the early 1990s, the State Government has had to function within a changing national policy framework where public investment support for rural development planning has declined considerably. While the advanced regions of West Bengal responded quickly to the early successes, the development needs of regions that lagged behind have been inadequately met from within the limited means available to the State Government. With clearer understanding of regional dimensions in West Bengal being generated by subsequent development studies, it has become increasingly evident that the development strategies being applied to the State need to be differentiated regionally, with full recognition of local factors such as climate, environment and infrastructural conditions. This approach has been inducted into the development policies of the State Government through the formation of regional boards to look into the specialised needs of the Sundarbans, the Paschimanchal and Uttarbanga regions and the Darjeeling hill areas.

Integration of human development concepts into development planning in West Bengal commenced with the preparation of the first West Bengal Human Development Report (WBHDR) which was published in 2004 by the Development & Planning Department, Government of West Bengal. The District Human Development Reports (DHDRs) now being prepared in West Bengal had their genesis in the tripartite agreement between the Planning Commission, the Government of West Bengal and the UNDP for strengthening human development planning





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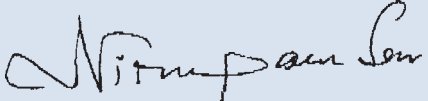
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capabilities in the State Plan. For the State Government, this collaboration held the potential of carrying forward its programme for decentralisation and devolution of development decision-making to local governance institutions, to ensure fuller and more meaningful participation of the people in the planning process. The selection of the backward districts of Malda and Bankura for the initial DHDR exercises marks the resolve of the State Government to address local factors that cause disparity and inhibit development, in regions where their impact has been most severe, also vindicating the ability of the Human Development approach to redirect policy attention to areas where it is most needed. The DHDRs already published for three districts in West Bengal have been widely studied in other States, generating considerable interest in the unfinished task of district level planning.

Some of the critical problems that West Bengal has had to face since 1947 arise from its border location, which affects development patterns in ten West Bengal districts located along the 2217 km Indo-Bangladesh border. Uttar Dinajpur is one among these, and its backwardness is directly related to its geographical situation. The Uttar Dinajpur District Human Development Report 2010 has been prepared by an interdisciplinary team of administrators, academicians and people's representative, through a consultative process led by Professor Jeta Sankritayayana, Member, West Bengal State Planning Board. The Uttar Dinajpur DHDR presents a vivid picture of the State of human development in the district, identifying the complexities of its regional and administrative history, its cultural and linguistic diversity, and their combined impact on its attainments in the sphere of livelihood, education and health. I record my deep appreciation of the painstaking effort put in by the team.

It is hoped that the DHDR will serve as a primary document for building a district vision and for assessing and redressing disparities within the district, and shall strengthen the capabilities of the District planning system in meeting people's aspirations and needs.

**Kolkata,  
February, 2010**

  
(Nirupam Sen)



## Preface

The Uttar Dinajpur District Human Development Report [UDDHDR], 2010 is presented in the second phase of studies undertaken to document regional human development in the state of West Bengal at district and sub-district level, as part of the project for Strengthening State Plans for Human Development [SSPHD] sponsored by the UNDP, the Planning Commission and the Government of West Bengal. The principal objective in writing this report has been to inform, influence and transform district planning processes in Uttar Dinajpur by reviewing the state of human development attainments in different parts of the district and identifying development issues that will need to be resolved so that human development in the district can become more inclusive and holistic, touching the lives of all residents in Uttar Dinajpur. Despite statutory provisions under which a district and its constituent blocks are defined as basic planning units in India, district planning has so far been handicapped by the lack of planning documentation of adequate spatial and analytical depth. While bridging this gap in the case of Uttar Dinajpur, the UDDHDR, 2010 also lays a foundation for integrated district planning that can ensure that development benefits percolate to all sub-regions and all stake-holders in Uttar Dinajpur.

Uttar Dinajpur is placed among the least developed districts in West Bengal as well as in India, with high levels of illiteracy, low health-care and livelihood access and wide-spread rural poverty. Although it is a predominantly agricultural district, rapid population escalation restricts the absorption of new rural workers into farm-based employment, while low levels of urbanisation restrain the growth of the non-farm sector. Medium and long range district planning strategy must accordingly focus on the diversification of economic activities by leveraging human development variables like education and improved healthcare, so that the district can ascend the development ladder through an alternative path. Identifying persisting roadblocks in different development blocks of Uttar Dinajpur through human development indexing, the UDDHDR, 2010 also outlines core strategies for the road ahead which can be followed fruitfully by the panchayats, the block planning authorities and the District Planning Committee [DPC] in prioritising development interventions while integrating sub-district level plans into a consolidated human development plan for Uttar Dinajpur. By encouraging the visualisation of current development processes and problems in Uttar Dinajpur from village and block level perspectives, the UDDHDR, 2010 also seeks to facilitate the evolution of a bottom-up approach which can strengthen convergence between administrative authorities, Panchayati Raj Institutions [PRIs] and other development stakeholders, thus holding the key to effective decentralised planning.

The Uttar Dinajpur DHDR examines the basic attributes of human development namely, educational attainments, health attainments and livelihood attainments, in the district of Uttar Dinajpur at the level of its constituent blocks, and occasionally also at Gram Panchayat level. This disaggregated exercise was undertaken in order to capture regional disparities within the district, drawing focus to human development issues that assume significance at sub-district level. Having

been reconstituted as a separate district in 1992 after the bifurcation of the erstwhile West Dinajpur district, district planning in Uttar Dinajpur is still in its infancy, although the creation of the new district has a long history behind it, stretching back to the 1947 Partition as well as the 1956 transfer of territories from Bihar to West Bengal. The present human development problems of Uttar Dinajpur thus have an inherited nature, and are rooted in internal development disparities within the district. Besides poor educational, health-care and economic attainments, the district witnesses pervasive poverty which is amplified by agro-climatic constraints, livelihood limitations and population migration, creating a vicious circle where development interventions have also been blunted by the unfinished process of administrative reorganisation. Along with the highly participatory nature of the DHDR process entailing continuous interaction with multiple stakeholders, visual recall of the regional disparities that became evident within Uttar Dinajpur while travelling the length and breadth of the district, aided the initial conceptualisation of these problems.

Delineation of these human development problems in the UDDHDR required the compilation of a strong statistical data-base for the district, drawing from the large online data-bases of the population Census, the Agricultural Census, the School Education survey, the Rural Household survey and MIS data from the DISE and NREGS systems, as well as the data compilations regularly published by the Bureau of Applied Economics & Statistics [BAE&S], Government of West Bengal. These were supplemented by departmental data drawn from within the Government system, which were made available by the Office of the District Magistrate, the offices of the CMOH and ICDS, the DIC and the Sarva Siksha Mission, etc., as well as the Uttar Dinajpur Zilla Parishad [UDZP]. The responsibility of seeking out and compiling the UDDHDR data-base from these multiple data sources, and of subsequently maintaining, managing and tabulating the data has rested from the outset on Prof. Jeta Sankrityayana. The UDDHDR data-base is a key resource for future human development planning in Uttar Dinajpur and will provide considerable support to the District Administration and the DPC in discharging their statutory planning responsibilities.

The DHDR process was initiated at a lively inception workshop held at Raiganj in early July, 2007, where the focal issues to be addressed by the UDDHDR, 2010, were synthesised through situational analysis and detailed discussion between a cross section of development stakeholders drawn from the District Administration and its departments, the UDZP and its multiple tiers, as well as from civil society groups, community based organisations and academic researchers from local and regional institutions. The workshop was facilitated by the HDRC Centre of the Development & Planning Department, Government of West Bengal, and the West Bengal State Planning Board. Besides, identifying and validating the existing data sources, the workshop provided inputs for formulation of the detailed UDDHDR Concept Note which was discussed and endorsed at a subsequent technical workshop held in early September, 2007, where cross-disciplinary working groups comprising technical experts, elected representatives and administrators, academic researchers and community workers were constituted for each of the DHDR study components delineated in the concept note.



While the working groups undertook the preliminary task of etching out the UDDHDR chapters, overall coordination was maintained by the UDDHDR Core Committee, with the Sabhadhipati of the Uttar Dinajpur Zilla Parishad [UDZP], Smt. Jyotsna Rani Singha, as its Chairperson and Shri Sukumar Bhattacharya, IAS, District Magistrate, Uttar Dinajpur, in overall administrative charge. The DHDR Cell at the Uttar Dinajpur district headquarters and its designated officers coordinated the UDDHDR activities and technical studies at the organisational level, maintaining liaison between working groups and the line departments, which also cooperated wholeheartedly in providing relevant data inputs. The District Administration was responsive at all times to the logistic needs of the UDDHDR exercise, helping the UDDHDR team immensely, while the UDZP and individual DPC members actively supported the working groups and considerably enriched the present report with their participation.

Presentations on the Uttar Dinajpur DHDR at three different stages of the UDDHDR exercise were also made at Kolkata at the Development & Planning Department, Government of West Bengal, in the presence of the Empowered Committee for the SSPHD project, representatives from the UNDP and the Planning Commission, Government of India, and members of the West Bengal State Planning Board. The audience at these presentations which were chaired by Shri Nirupam Sen, Hon'ble MIC, Departments of Commerce & Industries, Industrial Reconstruction & Public Enterprises and Development & Planning, Government of West Bengal, and steered by Smt. Jaya Das Gupta, IAS, Principal Secretary of the Development & Planning Department, also included representatives from other district teams engaged in similar DHDR exercises in the second phase of SSPHD studies. The knowledgeable comments received from discussants at these presentations have aided in refining the analytical focus of the present report.

Smt. Jaya Das Gupta, IAS, Principal Secretary of the Development & Planning Department, Government of West Bengal, has been at the helm of the second phase of DHDR exercises at the State level from start to finish, and has guided and facilitated all activities that have gone into the preparation of the UDDHDR. Her support and appreciation of the pioneering nature of DHDR studies has been invaluable in strengthening the quality of this report. Smt. Kalyani Sarkar, IAS, Director, EMM & Ex officio Special Secretary, Development & Planning Department, Government of West Bengal, and Nodal Officer at the HDRC Centre at the Development & Planning Department, kept the ball rolling through various stages of the exercise, with able organisational and technical support being extended by Smt. Sayantani Ghosal, NUNV, HDRC, Smt. Gargi Ghosh, NUNV, HDRC, and Shri Subhronil Ganguly of the Gender Resource Cell at the HDRC Centre at the Development & Planning Department.

The Uttar Dinajpur DHDR is the outcome of more than a year of consultations between local governance authorities, administrators, development agencies, research institutions, voluntary organisations and civil society, acting as stakeholders in the human development of Uttar Dinajpur. Shri P.K.Sengupta, IAS, the then holding charge as District Magistrate, Uttar Dinajpur, Smt. Jyotsna Rani Singha, the then Sabhadhipati of the Uttar Dinajpur Zilla Parishad, and Shri Manoranjan Das,

Vice-Chairman of the District Planning Committee, Uttar Dinajpur, provided the initial impetus for the initiation of the UDDHDR exercise at district level. Shri Sukumar Bhattacharya, IAS, who subsequently assumed charge as District Magistrate, Uttar Dinajpur, maintained a keen interest in the progress of the exercise and ensured that all administrative support was extended to the studies undertaken by the UDDHDR team. Shri P.K. Dutta, Additional District Magistrate (Development), Uttar Dinajpur, and Shri Enaur Rahman, ADM (Land Revenue), Uttar Dinajpur, were instrumental in maintaining coordination and in evening out the workflows from the start to the completion of the UDDHDR exercise. Shri Manoranjan Das, Vice-Chairperson, DPC, Uttar Dinajpur, drew freely from his uncommonly deep understanding of development processes and problems in Uttar Dinajpur, thus making an important contribution to the medium and long range visioning of regional experiences and latent development potentials in Uttar Dinajpur. The contribution made by Shri Sudip Mukherjee, Coordinator, NREGS, Uttar Dinajpur, in smoothening the UDDHDR exercise also merits special mention because of the high level of capability he constantly demonstrated while organising and supervising liaison activities and providing logistic support to the UDDHDR team.

The UDDHDR working group on Education, which included the DI (Primary Education) and the DI (Secondary Education), the DPO, Sarva Siksha Mission, Smt. Dola Ray, District Nodal Officer, SSK & MSK, and Shri Amitava Dutta, DYO, Uttar Dinajpur, as its members, was led by Shri Prasanta Basak, Headmaster, Chopra High School, who was also responsible for drafting the initial outline of the chapter on Education in Uttar Dinajpur. Additional inputs on the proliferation of education in Uttar Dinajpur, and the status of educational infrastructure and madrasah education were provided subsequently by Prof. Jeta Sankrityayana.

The UDDHDR working group on Health-care was led by Dr. Chandreyee Das of Hijli INSPIRATION, and included the Executive Engineer, PHE, the District Coordinator, TSP, the DPO, ICDS, Shri Arup Sanyal from the Department of Economics, Surendranath College, Raiganj, Shri Jagabandhu and Shri M.N. Ghosh from St. John's Ambulance, Shri Prosenjit Datta from the Red Cross, Shri Jayanta Bhowmik from SRISTEE, and Dr. Prabir Chatterjee from UNICEF, as well as the CMOH, Uttar Dinajpur. The initial outline draft of the chapter on Healthcare in Uttar Dinajpur was prepared by Dr. Chandreyee Das. Several additional inputs from Prof. Jeta Sankrityayana on disease incidence, health service norms and overall health-care performance in Uttar Dinajpur were incorporated subsequently.

The UDDHDR working group on Economic Livelihoods was led by Dr. Nandadulal Banerjee from the Department of Economics of Raiganj University College, assisted by Shri Chandan Ray from the Department of Economics, Kaliaganj College, and included Shri Asim Sarker, ADO, Dr. Sajal Bhunia, Deputy Director, ARD, the District Fisheries Officer, the District Horticultural Officer, the General Manager, DIC, Shri D. Mallick, MD, Milk Union, Shri Manoj Mitra, District Coordinator, SRD, DRDC, and Shri Bhaskar Sarkar from SRISTEE as its members. The outline draft of the chapter on Economic Livelihoods in Uttar Dinajpur was prepared by Dr. Nandadulal Banerjee and Shri

Chandan Ray. Additional inputs were incorporated by Shri Anjan Chakraborty, Lecturer in Economics, St. Joseph's College, Darjeeling, Smt. Panchali Sengupta, Senior Research Fellow at the Department of Economics, North Bengal University, and Shri Jaideep Sengupta and Smt. Debjani Chowdhury, researchers at the Department of Economics, North Bengal University. Dr. Abdul Hannan, who was then with the Centre for Education & Communication [CEC], New Delhi, prepared a status report on the new tea plantations in Uttar Dinajpur. Dr. Sanchari Roy Mukherjee subsequently contributed the analysis of work participation rates, while Prof. Jeta Sankrityayana contributed reviews of the agrarian situation, the proliferation of irrigation and the performance of NREGS in Uttar Dinajpur.

The UDDHDR working group on Women in Uttar Dinajpur was led by Dr. Sanchari Roy Mukherjee, Director, Centre for Women's Studies, North Bengal University, with Smt. Ranjita Chakraborty, Senior Lecturer in Political Science, North Bengal University, and representatives from several Gram Panchayats and women's SHGs in Uttar Dinajpur as its members. The outline draft of the chapter on Women's Situations in Uttar Dinajpur was prepared by Dr. Sanchari Roy Mukherjee, with inputs from Smt. Ranjita Chakraborty and additional contributions from Smt. Sudakshina Ray Dutta, Lecturer (Selection Grade) in Economics, North Bengal University, and Smt. Panchali Sengupta, Senior Research Fellow, Department of Economics, North Bengal University.

The UDDHDR working group on Migration and Resettlement in Uttar Dinajpur was led by Dr. Sanjay Roy, Reader in Sociology, North Bengal University, who prepared the working outline for the chapter, while the detailed study of long-term migration patterns from Census data-bases was contributed by Prof. Jeta Sankrityayana and Dr. Sanchari Roy Mukherjee.

While the introductory regional profile of Uttar Dinajpur district was prepared by Prof. Jeta Sankrityayana, the computation and analysis of HDI and HPI indexes for Uttar Dinajpur district was carried out jointly by Dr. Sanchari Roy Mukherjee and Prof. Jeta Sankrityayana on the basis of the methodology developed earlier for the Malda District Human Development Report, 2007, to maintain parity with index computations for other West Bengal districts. The outline strategy for human development in Uttar Dinajpur was compiled from detailed discussions on the Draft UDDHDR, 2009 with the members of the District Planning Committee and other stakeholder groups in Uttar Dinajpur district.

Compilation of the UDDHDR, 2010 into its present format was accomplished through three consecutive stages. At the initial stage, the UDDHDR working groups undertook the preparation of interim reports on their assigned themes and presented these at an interim workshop where progress was reported, data duplications were identified and removed and persisting data gaps were assessed. Incorporating the feedback from the workshop, the UDDHDR working groups expanded on their work, compiling outline drafts of their assigned chapters which were forwarded to the Lead Coordinator. At the second stage, the outline drafts were structured and assembled into

a working DHDR draft by the UDDHDR Lead Coordinator, Dr. Sanchari Roy Mukherjee, who also vetted the analytical coverage and data accuracy in the light of the concept note, removing anomalies where they occurred and assigning gap areas to the supplementary contributors. These additional inputs were assimilated into the Draft UDDHDR, 2010 which was presented for detailed discussion before the DPC and the SSPHD Empowered Committee. At the third stage, the UDDHDR, 2010 in its final manuscript form was prepared by the Lead Author, Prof. Jeta Sankrityayana, after reediting, restructuring and rewriting the preliminary draft wherever necessary, and adding the graphic and GIS content. Thus the first shape to the chapters was given by the UDDHDR Lead Coordinator, while the Lead Author has reshaped the UDDHDR, 2010 into its final published form.

The UDDHDR exercise marked a period of intensive interaction, consultation and mutual learning within a very large team of development stakeholders, with the objective of synthesising a common vision for future human development in Uttar Dinajpur. The Uttar Dinajpur District Human Development Report, 2010 in its final form documents this synthesis. Each participant in this process contributed uniquely to the final outcome, including those mentioned above, as well as the many citizens of the district whose voices and aspirations are reflected in the report even though their names remain individually unacknowledged. It is hoped that development agencies and district planners alike will draw substance and support from this report, while transforming this vision into practice. The ultimate impact of the report will then be shared by the ordinary people of Uttar Dinajpur.

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February, 2010

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## Chapter 1

### REGIONAL PROFILE OF UTTAR DINAJPUR DISTRICT

#### Human Development in Uttar Dinajpur

Uttar Dinajpur district spans an area of 3140 sq.km and had an aggregate population of 24,41,794 persons in 2001. It thus ranked 16th among nineteen West Bengal districts in terms of overall size with 3.5 percent of the total land area of the state, and 17th in terms of overall population with 3 percent of the aggregate state population. However, with high compound population growth at 2.56 percent per annum between 1991-2001 (West Bengal 1.76% p.a.) and even faster rural population growth at 2.76 percent p.a. (West Bengal 1.58% p.a.), Uttar Dinajpur was the fastest growing district in the state in terms of its population. The district remains predominantly rural, with an urbanisation rate of just over 12 percent of the population in 2001 (West Bengal 28%). Human development situations in Uttar Dinajpur are, therefore, strongly influenced by demographic attributes, including high population growth, high rural dispersal of the population and high rates of migration. Consequently, in the indexed human development assessments for seventeen West Bengal districts in the *West Bengal Human Development Report, 2004* [WBHDR 2004], the districts of Uttar Dinajpur and Dakshin Dinajpur taken together ranked 11th in terms of their combined health index of 0.62 and income index of 0.39, 15th in terms of their education index of 0.53, and 13th overall in terms of their combined *human development index* [HDI] of 0.51. The general backwardness of the Dinajpur region is easily apparent from such figures.

Although consistent data separating these human development indicators for each of the two constituent Dinajpur districts, were not available at the time of preparation of *WBHDR, 2004*, the development attributes for the district of Uttar Dinajpur, where separately available in *WBHDR, 2004*, showed that it lagged behind Dakshin Dinajpur in several vital spheres of human development, including education, basic healthcare and livelihoods. The aggregate literacy rate for Uttar Dinajpur in the year 2001 amounted to 48.6 percent against 64.5 percent for Dakshin Dinajpur, with the differential female literacy rates being even more striking at 37.2 percent for Uttar Dinajpur and 55.1 percent for Dakshin Dinajpur. At the primary stage, pupil-teacher ratios [PTRs] were also strikingly different between schools in the two districts at 71 pupils per teacher in Uttar Dinajpur against 56 per teacher in Dakshin Dinajpur, indicating the presence of higher enrolment loads but lower staffing ratios at the primary schools located in Uttar Dinajpur. At the upper primary stage too, Uttar Dinajpur had a higher PTR of 48 per teacher against 33 per teacher in Dakshin Dinajpur.

Around 28 percent of infant children in Uttar Dinajpur had received immunisation during the first year of their life, compared to over 40 percent in Dakshin Dinajpur. The gender ratio at 937 females per thousand males in Uttar Dinajpur also lagged behind the corresponding ratio of 950 for Dakshin Dinajpur. While agricultural labourers comprised 44 percent of the workforce in Uttar Dinajpur against 40 percent in Dakshin Dinajpur, the latter district offered a more diversified work profile with 28 percent of its workforce engaged in other non-farm activities against 18 percent in Uttar Dinajpur. The District Domestic Product [DDP] taken in *per capita* terms amounted to Rs.11,183 per person in Uttar Dinajpur in 2001 against Rs.14,579 per person in Dakshin Dinajpur, identifying Uttar Dinajpur as the poorest district in West Bengal. The after-effects of redistributive land reforms had also been felt unequally between the two districts, with 22 percent of all recipients in Uttar Dinajpur having subsequently lost control of their *pattas*, compared to 19 percent in Dakshin Dinajpur. Thus although both districts are socio-economically backward and occupy lower ranks vis-a-vis other West Bengal districts in terms of these attributes, development differentials of such high order between two district units that had both formerly been parts of the undivided district of West Dinajpur indicate that human development situations in Uttar Dinajpur are more desperate than those prevailing in Dakshin Dinajpur.

Given this backdrop, it becomes important to undertake a detailed study of human development in Uttar Dinajpur in order to identify the specific socio-economic causes and human impacts of its prevailing backwardness. The aim of this study is also directed at identifying specific subregions within the district where the levels of regional backwardness are highest, so that targeted planning interventions by the State and District authorities can ameliorate these differentials. The *District Human Development Report* [DHDR] for Uttar Dinajpur seeks to reopen a dialogue between the people and the planners by drawing specific focus to the life situations currently confronted by the people in different parts of Uttar Dinajpur. By making the social costs and benefits of district planning efforts to improve education, healthcare and livelihood opportunities clearly visible, the DHDR also seeks to promote common thinking among all development stakeholders in Uttar Dinajpur. Since the DHDR analyses human development situations within a holistic framework that cuts past narrow sectoral compartments and political constituencies, it encourages the evolution of a complete and inclusive development perspective on Uttar Dinajpur that can augment core district planning competencies and strengthen the concurrent monitoring of development programmes.

The foundation for such an exercise must be based on a comprehensive understanding of district development processes in Uttar Dinajpur within their specific regional and institutional setting. Thus at the outset, the DHDR assembles and analyses historical and spatial information for Uttar Dinajpur and its surrounding regions in order to identify the longterm regional constraints within which the district presently operates. Specific sectoral attention is then extended sequentially to human development situations and attainments within the educational, healthcare and economic spheres in Uttar Dinajpur, with separate note also being taken of underlying gender disparities within the district as well as specific women's issues and situations. As indicated by the short review above, the crux of general socioeconomic backwardness and many of the current human development problems in Uttar Dinajpur appears to be rooted in rapid population growth driven by high rates of migration into the district, as a joint consequence of which there is a constant mismatch between the existing provision of basic physical and social infrastructure and the user-loads that fall upon these facilities. The reasons for the phenomenon of high migration which lie in peculiar political and administrative history of Uttar Dinajpur district, causing it to be sandwiched in a narrow band between international and interstate frontiers, are also explored in a separate section of the DHDR. Finally, after measuring and ranking the human development attainments of the constituent blocks of Uttar Dinajpur by means of appropriate dimension indices and block level HDIs, the blocks where these overall constraints appear most severe are identified along with the design of a feasible district strategy for human development intervention.

The people of the district, the district planners and the local government institutions of Uttar Dinajpur are all expected to benefit from the comprehensive exercise undertaken in the *preparation of Uttar Dinajpur DHDR*. Despite being caught within a gamut of development challenges, both in its past and recent present, Uttar Dinajpur has shown considerable resilience while attempting to surmount these existing challenges. Better understanding of the human development problems of the district, through the DHDR, will help these present impediments to be overcome.

### Administrative History of Uttar Dinajpur

Uttar Dinajpur was reconstituted as a separate district within the state of West Bengal with effect from 1st April, 1992 by notification of the Governor of West Bengal (no. 177-L.R./6M-7/92) published in *The Calcutta Gazette Extraordinary* on 28 February, 1992. This order separated the subdivisions of Islampur and Raiganj Sadar, collectively comprising 9 police *thanas* of the erstwhile district of West Dinajpur, from the headquarters subdivision of Balurghat comprising 8 other police *thanas* which were reconstituted separately as the new district of Dakshin Dinajpur. Balurghat thus retained the principal administrative offices of the erstwhile district, while the subdivisional facilities that pre-existed at the time at Raiganj subdivision [SD] have been gradually upgraded with the establishment of the new Uttar Dinajpur District Administration,

for which a new integrated administrative complex has been established on the Government estate at Karnajora located on the outskirts of Raiganj. The transition of Uttar Dinajpur into a full-fledged administrative district is thus a relatively recent event.

Nevertheless, the antecedents of Dinajpur as a specific territorial region within Bengal stretch back more than 2000 years to the age of the Mauryas and Guptas, when the ruined city at Bangarh near Gangarampur in Dakshin Dinajpur – then known as the city of *Kotivarsa* or *Devikot* - flourished as a major trading post on the eastern fringes of their empires. The mythological associations of Uttar Dinajpur place it astride the frontiers of the ancient territories of *Anga* and *Pundra*, as mentioned in the *Mahabharata*. The decline of this important region of Bengal after it had risen to its zenith during the four-century reign of the Buddhist Palas was as much the result of ecological change accompanying the migration of distributary rivers in the Tista-Punarbhaba-Atrai system, as of the shift of political power away from the region during the subsequent ascendancies of the Sena kings, the Turko-Afghan sultans and Mughals, the colonial empire of the British, and India today.

The recent administrative history of the region is complex. The original district of Dinajpur was constituted in 1786 by the British after the alienation of the large zamindari estates of Dinajpur Raj, from which parts were also incorporated subsequently into adjoining Purnea (now in Bihar) and Malda districts, as well as Rangpur and Rajshahi districts which now form part of Bangladesh. After the Bengal Boundary Commission award partitioning Bengal had handed over the Sadar and Thakurgaon subdivisions of Dinajpur district to East Pakistan in August 1947, the new international border between the two parts of Dinajpur was demarcated by the Radcliffe line passing between (a) Raiganj *thana* and Haripur *thana* (in East Pakistan); between (b) Hemtabad *thana* and the *thanas* of Ranisankail and Pirganj (in East Pakistan); between (c) Kaliaganj *thana* and the *thanas* of Pirganj, Bochaganj and Biral (in East Pakistan); between (d) Kushmandi *thana* and Biral *thana* (in East Pakistan); between (e) Gangarampur *thana* and the *thanas* of Biral and Dinajpur (in East Pakistan); between (f) Kumarganj *thana* and the *thanas* of Dinajpur, Chirirbandar and Phulbari (in East Pakistan); between (g) Balurghat *thana* and Phulbari *thana* (in East Pakistan) terminating at the point where the Balurghat-Phulbari border met the Bengal Assam railway. Thereafter, the Radcliffe line turned southwards, skirting the lands belonging to the railway, then following the border between (h) Balurghat *thana* and the *thanas* of Panchbibi, Joypurhat and Dhamoirhat (in East Pakistan); and between (i) Tapan *thana* and the *thanas* of Dhamoirhat, Patnitola and Porsha (in East Pakistan). At the time of Independence in 1947, what has now become the northern border between Islampur SD in Uttar Dinajpur and Bangladesh was then the border between Purnea district in Bihar and East Pakistan.

The Balurghat SD of old Dinajpur was then reconstituted (*vide* notification no.548 G.A.dated 23.2.48) as West Dinajpur district within West Bengal, with the new Raiganj SD being formed (*vide* notification no.2139 G.A.dated 14.7.48) from the *thanas* of Raiganj, Hemtabad, Kaliaganj and Itahar as well as the adjacent *thanas* of Kushmandi and Banshihari which are now part of Dakshin Dinajpur. However, because of the pressing need to restore territorial links between northern and southern West Bengal which had been snapped by the act of Partition, the States Reorganisation Commission (SRC, 1953-55) subsequently approved the remapping of interstate boundaries between West Bengal and Bihar. On its recommendation, a portion of the erstwhile Kishanganj SD comprising Goalpokhar, Islampur and Chopra *thanas* and parts of Thakurganj *thana*, along with adjacent parts of the erstwhile Gopalpur *thana* in Katihar SD were transferred from Purnea district in Bihar to West Bengal in 1956, and were formally incorporated into Raiganj SD in West Dinajpur under the Bihar & Bengal (Transfer of Territories) Act 1956. In terms of the SRC award (which also transferred the tract constituting Purulia district from Bihar to West Bengal), the areas transferred from Purnea district in Bihar that now form Islampur SD in Uttar Dinajpur district lay within 200 yards [183m] to the west of the highway linking Siliguri to Dalkola through Chopra and Kishanganj and 200 yards to the south or southwest of the highway linking Dalkola through Karandighi to Raiganj. However, since the new boundary line was not to intersect any town or village, the township of Kishanganj and its entire municipal boundary remained within Bihar.

The transfer of territories from Purnea district in Bihar to West Dinajpur district in West Bengal, involving a total area of approximately 1965.80 sq.km covering 906 revenue villages with a total census population of 2.78 lakh in 1951, was accomplished through a series of sequential administrative orders. After an initial notification (no.3858 G.A.dated 1.11.56) had transferred these territories from Bihar to Darjeeling district in West Bengal, they were incorporated into West Dinajpur through a second notification (no.3875 G.A.dated 2.11.56). The new Chopra police station [PS] in West Dinajpur was reconstituted (*vide* notification no.3859 G.A.dated 1.11.56) from the transferred portions of Chopra PS and Thakurganj PS under the former jurisdiction of the erstwhile Islampur revenue *thana* of Kishanganj SD, which at the time also included the areas subsequently retransferred to Kharibari PS in Darjeeling district. Other transferred areas previously included in the Islampur revenue *thana* in Purnea district, were reconstituted (*vide* notification no.3860 G.A.dated 1.11.56) into the new Islampur PS in West Dinajpur district. The new Goalpokhar PS in West Dinajpur was similarly reconstituted (*vide* notification no.3861 G.A.dated 1.11.56) from the old Goalpokhar PS of the Gopalpur revenue *thana* under Kishanganj SD and certain portions of the old Kishanganj revenue *thana* excluding the Kishanganj municipal area. The new Karandighi PS in West Dinajpur district was reconstituted (*vide* notification no.3862 G.A.dated 1.11.56) from the old Karandighi PS areas formerly under Katihar SD in Purnea district. These four newly-added PS areas that had previously been included in Bihar were then regrouped into the new Islampur SD of West Dinajpur. In March 1959, the portion of Chopra PS lying to the north of the Mahananda river covering an area of approximately 148.7 sq.km, that now comprises Bidhannagar-1 GP, Bidhannagar-2 GP, Chathat-Bansgaon GP and the southern half of Phansidewa-Bansgaon Kismat GP in Darjeeling district, was transferred from West Dinajpur (*vide* notification no.1176 G.A.dated 20.3.59) to the jurisdiction of Phansidewa PS under Siliguri subdivision. Thus after the original act of Partition in 1947 and subsequent transfers and retransfers of territory initiated in 1956, the northern borders of Uttar Dinajpur district that exist today were only stabilised 12 years later in 1959.

After the introduction of the Community Development Programme [CDP] in West Bengal in 1960-61, 6 CD blocks were constituted within Raiganj SD, which at the time also included Banshihari and Kushmandi blocks in addition to Raiganj, Hemtabad, Kaliaganj and Itahar. Within the transferred areas, two CD blocks were constituted from Islampur PS and Karandighi PS, while Chopra PS and Goalpokhar PS were included jointly in a single development circle. Subsequently, Chopra PS was reconstituted as a separate CD block while Goalpokhar PS was further bifurcated into Goalpokhar-1 block (i.e. the present Goalpokhar PS) and Goalpokhar-2 block (i.e. Chakulia PS). At the time of the introduction of CDP, West Dinajpur was still a relatively underdeveloped district, with Raiganj as its more developed subdivision. Under the block classification system adopted for CDP from 1 April 1958, only Raiganj, Hemtabad and Kaliaganj blocks (all of them in Raiganj SD) attained the Stage II development status entitling them to higher annual development budget allocations. Islampur, Karandighi and Itahar blocks which are now in Uttar Dinajpur, as well as Gangarampur, Kumarganj, Tapan which are now in Dakshin Dinajpur lagged behind them at the Stage I development level, while Chopra, Goalpokhar-1, Goalpokhar-2 and Itahar blocks in Uttar Dinajpur and Banshihari, Kushmandi, Kumarganj, Balurghat and Hili blocks in Dakshin Dinajpur were still at the rudimentary pre-extension stage. Considerable development disparities therefore already persisted between the more developed Raiganj SD region and the transferred areas of Islampur SD, which were inherited subsequently by Uttar Dinajpur when it became a full-fledged district in 1992. Such disparities did not merely reflect differences in development performance, but also revealed persisting disparities in the associated administrative and delivery systems arising out of historical events such as partition and the interstate transfer of territories, which had a profound development impact on the West Dinajpur region. A large part of the state effort during the early years inevitably had to be expended on creating and adapting administrative structures to ever-changing administrative boundaries, creating a development backlog that still continues to affect Uttar Dinajpur and particularly the five CD blocks that constitute Islampur SD.



The administrative impact of Partition on the areas that were reconstituted into West Dinajpur district was felt in the immediate need to regenerate the economic and administrative structures required for the governance of the new district. A lot of these initial needs were infrastructural in nature, since two-thirds of the pre-1947 area along with district headquarters facilities of the pre-Partition Dinajpur district had gone over to East Pakistan under the Radcliffe award. Although Raiganj by that time held more importance as a market and commercial town, Balurghat was designated as the new district headquarters, since the basic infrastructure for development administration was already present in this former subdivisional town. Raiganj was declared a municipality on 19 July 1951 shortly after Balurghat became one on 24 May 1951, and largely because of its economic importance, population growth rates in Raiganj over the period since consistently surpassed those of Balurghat. Nevertheless, in the upgradation of district and subdivisional amenities, entailing the construction of new administrative facilities and physical assets, such as, schools and colleges, roads and communication routes, hospitals, etc., the investment requirements of the headquarters region inevitably took precedence over the rest of the district.

The addition of new territories and the creation of the new sub-division of Islampur compounded such problems by multiplying these infrastructural disparities and needs. Although a Government move was made in 1958 to shift the district headquarters from Balurghat to Raiganj on account of its more central location, the proposal had to be abandoned in the face of popular resistance. Meanwhile, under the transitory provisions of the Bihar & Bengal (Transfer of Territories) Act 1956, new administrative complexities surfaced because of the interstate reapportionment of administrative and judicial functions and personnel, tax revenues, assets and liabilities, budgetary responsibilities and the sharing of public debt, and even of the rights of representation in panchayats and legislative bodies of Bihar and West Bengal. The three West Dinajpur sub-divisions were also governed under different legislative provisions for some time during the transition. Thus, while the Bihar Land Reforms Act, 1950 and the Bihar Panchayati Raj Act, 1947 continued to remain in force in the transferred areas in Islampur SD for some time, the West Bengal Estates Acquisition Act, 1953 and the West Bengal Panchayat Act, 1957 were applicable in Raiganj SD and Balurghat SD. Peculiarities consequently arose in local government and in the land revenue administration of the district.

After West Dinajpur was bifurcated into the separate districts of Uttar Dinajpur and Dakshin Dinajpur in 1992, further administrative readjustments and reallocations of territory were once more necessitated. By the initial Gazette order (*no.177-L.R./6M-7/92* dated 28 February 1992), Raiganj Sadar SD was reconstituted after transferring Banshihari block (Harirampur PS and Banshihari PS) and Kushmandi block (Kushmandi PS) to the jurisdiction of Gangarampur SD in Dakshin Dinajpur. On the principle of territorial contiguity, readjustments of administrative jurisdiction between Itahar and Banshihari blocks was also necessitated, leading at first to the bifurcation (*vide notification no.136-RD(Block)/F/4/1C-J/91(95)* dated 5 January 1996) of the old Banshihari block in West Dinajpur into the reconstituted Harirampur and Banshihari blocks. This also required the reconstitution of the Harirampur and Banshihari Panchayat Samitis in August 1996, and subsequent alteration in the jurisdictions of Itahar PS (*vide Home Department notification no.709-PL* dated 20 February 2006) and Harirampur PS (*vide Home Department notification no.709-PL* dated 20 February 2006).

The ensuing administrative process involved the interdistrict transfer of 56 revenue *mouzas* comprising Gokarna GP, Saiyadpur GP and Chhaighara GP from the jurisdiction of the old Itahar PS to Harirampur PS, accompanied by redrawing of the boundaries of Saiyadpur GP in Harirampur block in Dakshin Dinajpur and the transfer of the *mouzas* of Bimlapara (JL No.101), Bhabanipur Bejpukur (JL No.102), Kurmanpur (JL No.107) and Paschim Saiyadpur (JL No.253) to Patirajpur GP under Itahar block in Uttar Dinajpur. Although appropriate notifications were issued soon afterwards of the transfer of the 10 *mouzas* of Chhaighara GP from Uttar Dinajpur to Dakshin Dinajpur block (*no.917/PN/O/IIIP-7/04* dated 21 February 2006 of the Panchayat & Rural Development Department) and of 4 *mouzas* from Saiyadpur GP in Dakshin Dinajpur to Patirajpur GP in Uttar Dinajpur (*no.924/PN/O/IIIP-7/04* dated 21 February 2006), along with necessary

orders for reallocation of GP & Panchayat Samiti memberships, GP assets & liabilities and panchayat funds, these could not be given effect to immediately because of a subsequent High Court stay on the operation of these orders issued in connection with a writ petition filed by certain private individuals. Finally, after the stay was vacated and the petition dismissed in March 2008, a new administrative order (no.2442/PN/O/II/IP-7/04 dated 10 June 2008 of the Panchayat & Rural Development Department) was issued after the completion of the 2008 Panchayat Elections, paving the way finally to give effect to these territorial transfers, sixteen years after the bifurcation of Uttar Dinajpur and Dakshin Dinajpur had been initially notified. Even so, the physical act of transfer is still not complete as of date.

As this survey of the administrative history of the district reveals, Uttar Dinajpur has taken an exceptionally long time to achieve territorial stability. Besides administrative complexities, the process of reconstituting the boundaries of the district after the initial act of Partition has involved huge intangible costs, both in terms of time and in the slowing down of the development process. The latter cost has been largely borne by the backward regions within the district, accounting for the high degree of regional disparity visible within Uttar Dinajpur. The creation of the district through the initial remapping of territories involved a sundering of its old regional linkages. The synthesis of new development linkages between the two sub-regions with disparate origins and cultural histories that now constitute Uttar Dinajpur has posed considerable challenges. This process of regional integration is not yet complete. The difficulties that have stood in the way need to be understood now against the broader canvas of regional history.

### Historical Antecedents of the District

Because of its administrative synthesis from sub-units that were originally parts of undivided Bengal and Bihar, the antecedents of Uttar Dinajpur district are scattered and need to be explored contextually with the local histories of regions to its east, west and south, to which its own regional history is inextricably bound. These regions respectively span undivided Dinajpur on the Tista floodplain, the Purnea-Saharsa region on the Kosi floodplain, and the Malda-Rajshahi region along the northern banks of the Ganga. On a map, Uttar Dinajpur straddles the eastern catchment of the Mahananda river, identified in the *Mahabharata* epic as the riverine boundary separating the ancient provinces of Anga and Pundra. Since the Mahananda occupies a deeply faulted valley between the major conical fans formed by the Kosi and the Tista, its course through history has been remarkably stable, unlike the latter rivers which have migrated considerably over their alluvial fans. The location of present-day Uttar Dinajpur thus corresponds closely with the western frontier of the ancient *pradesa* of Pundra with bordering Anga, which is associated mythologically with Karna who played a key role in the Mahabharata war in alliance with the Kauravas. Such mythological associations are also replayed in several regional place-names in Uttar Dinajpur like Karandighi and Karnajora.

Mythological connections to the Mahabharata legend are also found for several other places within the surrounding region, most prominently in the fortified ruins at Bangarh in neighbouring Dakshin Dinajpur district. Local fable links this site with the legend of king Bana and his daughter Usha who eloped with Aneerudha, the son of Krishna. Opposite the ruins of the city, located across the Brahmani river, is the supposed site of the legendary battle in which Krishna is said to have killed the Bana Raja. Slightly northwest of Uttar Dinajpur, near the city of Bhadrapur located in Jhapa district in the Nepal *terai*, is a site known as *Kichaka Vadh* where Bhima is said to have slain Kichaka in revenge for colluding and dishonouring Draupadi in association with the Kauravas, while the modern city of Biratnagar, located to the west in Morang district in Nepal, is believed to commemorate the capital of the king Virata of Matsyadesa who had offered the Pandavas shelter in the thirteenth year of their exile [Mahabharata Bk 4: *Virataparva*]. The riverport at Ghoraghat on the Karatoya, now located in adjoining Dinajpur *zila* in Bangladesh, is fabled to have been the site where Virata stabled his army's cavalry horses. Mythical links to the legend of Kichaka are also

often mentioned for the unexcavated historical sites at Asuragarh in Goalpokhar-2 block and the village of Bairhatta in neighbouring Harirampur block, Dakshin Dinajpur, both reputedly sites of the ruined palace of the vanquished Kichaka. A very ancient *sami* tree [*Prosopis spicigera*] at Bairhatta is still venerated as the site where Nakula concealed the weapons of the Pandavas before their attack on Kichaka.

While such local legends are obviously later suppositions which have overlaid the unwritten history of Uttar Dinajpur and its surrounding regions, solid evidence of the importance of the area during Maurya and Gupta times area has been found during excavations conducted at archaeological sites like Bangarh, which as the major regional riverport and communications node also formed the administrative headquarters for Kotivarsa *visaya* in Pundravardhana *bhukti* (cf. Damodarpur copperplates). The Karna legends and appellations associated with the Uttar Dinajpur region possibly derive from a dynasty of Karnata kings aligned to the later Sena dynasty who are known to have ruled parts of Bengal and Mithila intermittently during the interregnum between the decline of the Gupta age and the rise of the Palas [8th century CE]. This southern dynasty is also believed to have brought with it the system of tank-based irrigation which was already widespread in southern India. The presence of such water storage tanks is found upto the Karandighi region, marking the northernmost spread of tank-based irrigation systems in Bengal. Uttar & Dakshin Dinajpur collectively have over 29 thousand water tanks, most of which still continue to fulfil their ancient function more than a thousand years after they were originally constructed. The very largest of these Pala or post-Pala period irrigation tanks located at Tapan in Dakshin Dinajpur district covers an area of around 35ha excluding its banks, two more called Amrita and Jivat are in vicinity of Gangarampur, while three others of considerable size known as Alta Dighi, Gaur Dighi and Malian Dighi are grouped around Bairhatta, very close to Patirajpur in Itahar. Other than local legends however, no tradition survives about who exactly constructed these magnificent works.

The ancient period of Indian history from the 12th century BCE till about 550 CE was marked by the ascendancy of the Magadh region, rising to its ultimate zenith under the Mauryas (324-185 BCE) and the imperial Guptas (240-550 CE). Of the 16 mega-settlements or *mahajanapadas* that demarcated India during this ancient age, the Dinajpur region fell within Pundravardhana and was bordered to its south by Banga or Vanga and to its west by Anga. Gradually extending its frontier northwards to the Himalayan borderlands during the rule of Asoka (273-232 BCE), Magadh under the Mauryas had occupied all of Pundravardhana from the Kosi to the Karatoya, setting up a chain of fortifications to defend its territory and communications against the raids of hostile Kirata tribes from the northern hills. Prominent among these were Sikligarh fort in the Saharsa region of Bihar where a stone pillar was placed by Asoka, and the still unexcavated earthen fortresses at Barijangarh near Kishanganj and at Asuragarh (JL No.84 in Surjapur-1 GP, Goalpokhar-2 block) in Uttar Dinajpur. From its location and the palaeocourse of the Mahananda during Mauryan times, it is apparent that Asuragarh must have defended a riverine traderoute serving the fringes of the Mauryan empire. Historical structures and artefacts found at Asuragarh which include terracotta bricks and ringwells of the Mauryan type, scattered stone fittings and panels, and fields full of shattered potsherds as well as unidentifiable copper coinage, attest to the fact that this area was a flourishing settlement at the time, but was probably abandoned and never reoccupied following the decline of Maurya power. Further evidence of the Dinajpur region having been under the sway of the Mauryas is offered by the recurrence of pottery artefacts of the Northern Black Polished Ware [NBPW] type at archaeological sites spread all over the region.

During the interregnum when Shunga and Kushana rulers flourished in northwestern India, Pundravardhana apparently lost its strategic importance, although its continuing trading relations during the period are attested to by the recovery of Kushana gold coins and terracottas from archaeological sites like Bangarh. The northern territories were probably overrun at the time by Kirata invaders, commemorated in the legend of Kichaka. The Kichak and Asur tribes (probably alternate names for Kirati groups) are mentioned as being resident in adjoining Rangpur in 19th century ethnographic writings by British observers such as James

Wise, and a village named Kichaktola (JL No.120) survives in Sahapur-2 GP in Goalpokhar-1 block in Uttar Dinajpur. With the revival of regional fortunes commencing in the 4th century CE under the Guptas, Kotivarsa or Bangarh once again rose to administrative importance and many of the lands under its control were resettled through imperial landgrants such as those mentioned in the copperplate inscriptions of the era.

The landscape bordering the Mahananda to the west, spanning parts of modern-day Purnea, Araria and Kishanganj districts in Bihar and stretching on through Madhepura and Saharsa districts, was primarily a level treeless expanse of sandy savannahs and grasslands bordering the eastern Nepal *terai* which had long been dominated by the shifting courses of the Kosi and its many tributaries, offering little succour to agricultural communities. In contrast, the northern portions of Uttar Dinajpur lying along the eastern banks of the Mahananda valley which were wooded at the time attracted new settlement. Starting from the 4th century CE onwards, the forested lands in the tract were gradually cleared and replaced by cultivated fields and pasture lands. In later times, this process was accelerated through the evolution of *gachh* (literally, 'tree') tenancies, through which the land grantee in return for a nominal rent undertook to clear that land of its forest cover and bring it into productive use. As established by present-day village names, such *gachh* tenancies eventually spread widely over several parts of northern Uttar Dinajpur, including Sonapur, Majhiali, Daspara, Haptiagachh, Chopra and Lakhipur GPs in Chopra block, Ramganj-1, Kamalagaon-Sujali, Matikunda-2 and Agdimti-Khanti GPs in Islampur block, Jaingaon, Lodhan, Goti, Goagaon and Sahapur-1 GPs in Goalpokhar-1 block, and Sahapur-1 GP in Goalpokhar-2 block, as well as over adjoining areas in Darjeeling, Kishanganj and Araria districts. However, the waning of Gupta power during the 6th century CE was accompanied by another round of political uncertainty and population decline.

Journeying through the region to the court of Bhaskaravarman in Kamarupa in the 7th century CE during the reign of Sasanka who ruled the kingdom of Gauda from Karnasuvarna, the Chinese pilgrim Hiuen Tsang (Xuanzang) passed through Pundravardhana in 643 CE and left a written account of the tract, describing it as a region full of Mahayana Buddhist *viharas* as well as of adherents to the Jain teachings. The important Buddhist *viharas* of this period, which included Mahasthangarh (now in Bangladesh) and Raktamrittika (in Murshidabad), were important centres for the transliteration of Buddhist texts into the Chinese and Tibetan languages. The Jain *acharya* Bhadrabahu, preceptor to Chandragupta Maurya (40-298 BCE) who had founded the Maurya dynasty, was also reputedly born in Pundravardhana and played an important role in spreading the Jain teachings to southern India. The Jain or Natha sect also developed a large base in the Rarh region of Bengal and the adjoining areas stretching on to Bhagalpur, probably through the influence of the Karnata feudatories of the Gupta emperors who ruled that region. It is therefore presumed by certain sources that an Adinatha temple had existed at the time at Pandua in Malda district, whose rubble was later used by Sultan Sikandar Shah in constructing the Adina mosque at the site in 1375 CE.

Following the unsettled period known as *matsyanyaya* which followed the decline of the Gupta empire, the foundation of the Pala dynasty of Bengal was laid by its first ruler Gopala in 750 CE. Gopala is known to have been a native of Varendri – the classical name for the Dinajpur region – and is reputed to have risen to kingship at the will of the people. The early Pala dynasty between 774-1027 CE saw Bengal establishing dominance over much of northern India stretching on to Kanauj, under its major monarchs Dharmapala, Devapala and Mahipala-I. Besides building major Buddhist *viharas* at Vikramshila, Nalanda and Odantapuri in Bihar, the Pala rulers also built Somapura (Paharpur) *vihara* and Jagaddala *vihara* in the region adjoining Dinajpur in Bangladesh. Mahipala-I in particular had a very close association with Uttar Dinajpur, with his name being commemorated in place-names such as Mahipur village (JL No.32) and GP in Raiganj block, Mahinagar village (JL No.23) under Anantapur GP in Kaliaganj block and Mahipaldighi (JL No.190) under Udaypur GP in adjoining Banshihari block in Dakshin Dinajpur. Towards the end of his reign, Mahipala-I suffered reverses, losing sway over the Rarh region to the southern Chola dynasty. Following a period of

decline when Mahipala-II lost his life as well his control over the Varendri region during the Kaivarta revolt led by Divya, the power of the Palas was briefly eclipsed. The Kaivarta revolt is viewed partly as a rebellion against the suzerain power by a confederacy of minor rulers and partly as a revolt by the peasantry against oppression by their rulers. Although by 1072 CE, Ramapala was able to defeat the Kaivartas and restore Pala rule over Varendri, the empire had been substantially weakened by the revolt. Thus in 1096 CE, Vijayasena who ruled Rarh as a former feudatory of the Palas was able to establish control over Bengal and banish his erstwhile overlords into southern Bihar. The brief rule of this new dynasty saw the resurgence of Vaishnavism, and over its duration, the Pundravardhana region lost its political primacy. Ruling from Nadia, Vijayasena was succeeded by Ballalsena (1158-1179 CE) and then by Lakshmanasena who built his new capital at Lakshmanawati (Lakhnauti) or Gaur. In 1204 CE, the Sena rulers of Bengal were eclipsed by Turko-Afghan invaders when the city of Gaur fell soon after the lightning onslaught on Nadia by Bakhtyar Khilji, a general in the Mamluk force that had earlier occupied Delhi under Qutubuddin Aibak.

The early period of Muslim rule in Bengal till the mid-14th century CE saw frequent strife between the Delhi Sultanate and its independent-minded governors, many of whom sought to establish their own fiefs in the rich province they had just conquered. The warring factions chiefly comprised the Ghaznavids or Khiljis and the Ghurids or Mamluks, both of Turkic origin, while the scene of their conflicts included Malda, Dinajpur and Rangpur as well as the adjoining territories in Bihar. In order to re-establish swift military communications in the region, which had been disrupted by the difficulty of riverine communications following the shifting of regional rivers, the Khiljis had embarked on a program of building raised roads and bridgeworks between Devikot and their southern domains in Gaur, remains of which can still be seen at several places along the Tangan valley. The frontier citadel at Devikot or Kotivarsa, which was rebuilt during this period, continued to play an important part in maintaining their administration in the region even though its controlling hub shifted southwards to Lakhnauti (Lakshmanawati) or Gaur. In 1342 CE, the independent Bengal sultanate acquired stability with the founding of the Ilyashahi dynasty, heralding a period of architectural construction and growth. However, with Gaur having been abandoned temporarily to the vagaries of the shifting Ganga by Alauddin Ali Shah in 1338 CE, the Ilyashahi capital was located further up north in the older city of Pandua (Firuzabad), which was then situated more conveniently on the bank of the Mahananda.

The region to the north and east of the Karatoya river had till this time remained under the control of the Kamarupa rulers who gradually built a chain of mud forts along their frontier to ward off invasions from the south. The area separating Uttar Dinajpur from Jalpaiguri district, which lies due east of Chopra block and now forms Panchagarh *zila* in Bangladesh, held five of these major fortifications, namely Bhitargarh, Hosaingarh, Mirgarh, Rajargarh and Devengarh. Among these, Bhitargarh on the Indo-Bangladesh border is identified as the capital of the Kamarupi raja Prithu who is reputed to have attacked the retreating forces of Bakhtyar Khilji in 1206 CE upon their return from their expedition into the Himalayan hills, after dismantling an important bridge and cutting off their retreat across either the Tista or Karatoya. Now lying in Panchagarh Sadar *upazila* in Bangladesh, Bhitargarh fort is ringed to its north, east and west by the villages of Satkhamar (JL No.3, Bahadur GP) and Garalbari (JL No.9, Garalbari GP) in Jalpaiguri Sadar block and the village of Kukurjan (JL No.29, Kukurjan GP). Buchanan Hamilton, visiting the site in 1809, described it as a series of rectangular enclosures holding an outer city, an interior walled city, and a palace and citadel area located near a large 47ha water tank. As local legend has it, the city was abandoned and destroyed sometime during 13th century CE following a raid by the Kichak, *i.e.* Kiratas, indicating a period of turmoil when the region neighbouring present-day Uttar Dinajpur was overrun by invasions from the north, coinciding with the movement of the Ahom tribes into Assam. In his *Tabaqat-i-Nasiri* however, Minhaj records another abortive Khilji invasion of Kamarupa under Ghiyasuddin Iwaz Shah in 1226 CE, followed ultimately by the defeat of a similarly-named Kamarupa raja Bartuh or Britu at the hands of Nasiruddin Mahmud, governor of Awadh, in 1228 CE shortly after the Mamluks had wrested control of Bengal from the Khiljis.

Dinajpur has been identified almost coterminously with the Varendri region of northern Bengal, which was part of the administrative division known in ancient times as Pundravardhana. The name *Dinajpur* came into general use in during early mediaeval times after the foundation of the city of Dinajpur (now in Bangladesh) during early mediaeval times by a local ruler who held the position of *Hakim* (judge or governor) of *Dinaj* or *Danuj*, but whose origins cannot be traced more precisely. It is most likely that this was Raja Ganesha who also controlled the zamindari of Bhaturia (now in Haripur Upazila, Thakurgaon *zila*, Bangladesh), located on the Kulik river just north of the border village of Kailadangi (JL No.38) in Bindol GP, Raiganj block, and was one of the most influential feudatories of the Ilyashahi court. For four years between 1410-1414 CE, Raja Ganesha managed to consolidate substantial power into his own hands, and adopted the title of *Danujmardandeva* upon declaring himself ruler of Bengal in 1415 CE. Intervention by the Jaunpur sultan Ibrahim Shah Sharqi in 1418 CE forced him to relinquish the throne to his son Jitmal or Jadu, who converted to Islam and ruled subsequently as Sultan Jalaluddin Muhammad Shah. During the first year of his reign, the Bengal capital was shifted back to Gaur from Pandua, which the Mahananda had by then abandoned. The ascendancy of Raja Ganesha and these successors from his family was however shortlived, and in 1435 CE, the Ilyashahi sultans were restored to power under Nasiruddin Mahmud Shah.

While the seat of political power in Bengal had shifted southwards from the Dinajpur region following the advent of Turkic rule, Devikot or Damdamah as it came to be known later remained an important garrison town, showing signs of continuous occupation over the period. The economic power of the independent Bengal sultanate which was based on the developed agriculture of the Dinajpur region however triggered frequent intrigues within the Ilyashahi court, and in 1487 CE, the last Ilyashahi sultan Jalaluddin Fateh Shah was assassinated by an Abyssinian slave who usurped the throne as Shahzada Barbak-II. Following six years of rule by a succession of Abyssinian sultans, a popular revolt saw the advent of the Hussainshahi dynasty in 1494 CE under Alauddin Hussain Shah. The 44 years of Hussainshahi rule from 1494-1538 CE are reputed to have marked the golden age of the Bengal Sultanate, during which successive victories achieved over Kamarupa and the Khen kings at Kamata (identified with Gosanimari in Coochbehar district) enabled the extension of its control over most of the Northern Bengal.

Over the first three and a half centuries of Turkic rule in Bengal, the Delhi Sultanate had in the meantime witnessed internecine conflicts among the Turkic nobility, leading to displacement of the Mamluks by the Khiljis in 1290 CE and then the displacement of the Khiljis by the Tughluq dynasty in 1321 CE. In 1324 CE, Ghiyasuddin Tughluq had temporarily reestablished the writ of the Delhi Sultans over Bengal, before Ilyas Shah asserted his independence in 1342 CE. In 1353 CE, Firuz Shah Tughluq led a punitive expedition to Bengal, forcing Ilyas Shah to retreat from Pandua into the security of the Ekdala mud fort, which lay well-protected between the Chhirmati and Balia rivers at the site now identified as Ekdala Bairhatta (JL No.39) located in Birail GP, Kushmandi block, Dakshin Dinajpur, just north of Bairhatta and east of the border with Patirajpur GP in Uttar Dinajpur. A long siege of the fort was mounted which proved inconclusive, and the onset of rains compelled Firuz Shah to withdraw after both sultans had made commitments that they would not meddle with each other's territories. Ilyas Shah however annexed Sonargaon shortly before he passed away, forcing Firuz Shah to make another march to Bengal in 1359 CE to confront the next Ilyashahi sultan Sikandar Shah, who retreated once again into Ekdala. After another long siege where the same sequence of events was played out, Firuz Shah turned his attention away from Bengal towards Orissa. Meanwhile, the western borders of the Tughluq realms were coming under increasing attack from the Mongols. After the sacking of Delhi in 1398 CE by Timur and his forces, the power of the later Turks was decimated, while the Ilyashahi sultans continued to rule in Bengal for a considerable length of time, except for the shortlived ascendancy of Raja Ganesh and his successors.

For a time, between 1414 CE and 1451 CE, effective power within the Delhi Sultanate passed from the Turks into the hands of the Sayyid dynasty which was of Arabic origin. In Bengal, a similar transition did not occur until 1494 CE, when Alauddin Hussain Shah laid the foundations of the Hussainshahi or Sayyid

dynasty, also shifting his capital for a period from Gaur to the more impregnable Ekdala. In the meantime, the Afghans who had first entered India as soldiers of fortune with the Turkic armies had made an ascent to independent power when Bahlul Khan Lodi established the Lodi dynasty that ruled in Delhi till the decisive victory of Babur over Ibrahim Lodi at Panipat in 1526 CE. The second Lodi sultan Sikandar Lodi had made a foray with his army towards Bengal but had been forced to conclude a peace treaty after being stopped by Hussain Shah's opposing forces at the battle of Barh near Patna in 1495 CE. Closer to Bengal however, Sher Shah of the Sur Afghan tribe, who had temporarily entered the service of Babur between 1527-1528 CE and had subsequently risen to the regency of Bihar and declared his independence from the Mughals in 1531 CE. Growing conflict between Sher Shah and the later Hussainshahi sultans led ultimately to the defeat of Mahmud Shah by the Afghans at Kiul in 1534 CE and the ransacking of the city of Gaur in October 1537 CE. Under Sher Shah, the capital of Bengal was moved southwards from Gaur to Tandah. Extending his rule to Delhi after decisive victories over Humayun at Chausa (1539 CE) and Kanauj (1540 CE), Sher Shah founded the Suri dynasty which reigned in Delhi till the restoration of the Mughal throne under Humayun in 1555 CE. Afghan rule in Bengal lasted much longer until 1576 CE, but its seat of power had shifted decisively away by then from the Dinajpur-Malda region to the Rajmahal region across the Ganga.

Mughal rule was extended into Bengal in 1576 CE when Akbar defeated the Karranis consecutively at Patna and Rajmahal, and incorporated Bengal into a province of the Mughal empire under the name *Subah-i-Bangal*. Inheriting the system of centralised provincial administration devised by Sher Shah, the Mughals made new settlements of land with the powerful Dinajpur zamindars. While the southern part of Varendri located on the elevated lands of the Barind yielded a single annual rice crop, the wetter northern tracts yielded two crops a year, thus generating an agricultural surplus large enough to export. The immense economic and political might of the Palas as well as the Bengal sultans was founded on the high land revenues that could be realised by the state from this agriculturally developed region, which also formed the basis for the continuing regional dominance of Dinajpur throughout the early mediaeval period. According to the *Ain-i-Akbari* by Abul Fazal, the revenue settlement made in 1582 CE by Raja Todarmal at the instance of the emperor Akbar subdivided the *subah* of Bengal into 19 *sarkars* and 682 *mahals* or *parganas*, of which the regions encompassing Purnea district in Bihar and small parts of Dinajpur and Malda districts in undivided Bengal were included within the Sarkar Purneah (9 *mahals*) up to the Mahananda river border, the Sarkar Tajpur (29 *mahals*) including east Purnea and west Dinajpur, the Sarkar Panjrah (21 *mahals*) primarily including the northern and central heartlands of old Dinajpur, the Sarkar Barbakabad (38 *mahals*) including east Malda and east Dinajpur and major portions of Rajshahi and Bogra, and the Sarkar Lakhnauti (66 *mahals*) including most of the Gaur areas as well as portions of Purnea and Bhagalpur. The Sarkar Ghoraghat (88 *mahals*) included the remainder of Dinajpur. Along with the portion of Islampur subdivision in modern Uttar Dinajpur district which then formed the separate *pargana* or *mandal* of Surjapur (Sujapur, according to *Ain-i-Akbari*) and was almost coterminous with the old Kishanganj subdivision of Purnea district, the Bindol-Raiganj area was thus originally a part of the Tajpur Sarkar, while the old Pala period settlements of Ramauti and Mahinagar were included in the Sarkar of Lakhnauti or Jannatabad, the new title that had been given to Gaur by Humayun. The aggregate revenue assessment on this vast region of 251 *mahals* was valued at over 4.6 crore *dams* or Rs.11.41 lakh in the silver rupees of that time, amounting to a third of its gross produce, thereby establishing the economic importance of this region to the treasury of the Mughal durbar at Delhi.

Although Mughal dominion over the Dinajpur region lasted for nearly two centuries before the final battle was lost at Palashi (Plassey) in 1757, the empire ruled the region indirectly through civil governors and military *faujdar*s, and had in the meantime shifted the seat of the regional administration to Jehangirnagar (Dhaka) and subsequently to Murshidabad. Most of northern Purnea, including portions now transferred to Uttar Dinajpur, was not included in the Mughal Sarkar of Purnea through most of this period, and was still under the control of minor rulers in Nepal. It was not till after Murshid Quli Khan unified the functions of *subahdar* and *diwan* thus establishing the autonomous Nawabi of Murshidabad, that the frontier expanded

towards the north. Thus the areas north of modern Purnea which today comprise Araria and Kishanganj districts in Bihar, contiguous portions of Islampur SD in Uttar Dinajpur, and the southernmost portions of Phansidewa block in Darjeeling district only became part of the *Subah* of Bengal in 1722 when Saif Khan, the *faujdar* of the Purnea military garrison, extended the frontier substantially north of Jalalgarh fort into the *terai* territories of Nepal.

The history of the northern tracts of present-day Uttar Dinajpur thus differs in radical ways from the history of the rest of the district. The Morang or the eastern Nepal *terai* was heavily forested until the 19th century and was inhabited sparsely by the so-called *awalia* (malaria-resisting) tribes such as the Tharus, Danuwars, Meches and Dhimals who had either Kirati or Bodic origins. The Kichak raiders encountered in the early history of the Dinajpur region probably formed one of these groups. While certain Rajput chieftains who had migrated into the region in the 14th century while fleeing the invasions from the west had carved out small independent fiefs along this forest frontier, much of the *terai* east of the Morang had been under the sway of the Bodo Kachari or Mech rulers of Kamarupa and Kamata. The fall of the Bodo Kachari kingdoms under repeated onslaughts from the Bengal sultans and the Koch and Ahoms generated periods of uncertainty, which encouraged Bhutia expansion from the northern mountains onto the *terai* plains. Predatory incursions from the north were also frequent, both from the Bhutias and from the Kirata tribes, and till the extension of the Purnea frontier into the Morang by Saif Khan, the eastern Morang areas lying between the Kankai and Mahananda rivers and stretching upto Kishanganj slipped for a time into the control of Sikkim.

Meanwhile, changes kept occurring north of the Purnea frontier. By the late 18th century, when the unification of Nepal created the impetus for eastward expansion of the Gorkhas into the territories previously held by Sikkim, the East India Company [EIC], as successor to the *diwani* of Bengal, was already in control of the northern territories of Bihar and Bengal. The Anglo-Gurkha Wars (1814-1816) finally stabilised the frontier between Nepal and Sikkim and EIC-controlled territory in the Purnea and Rangpur *terai* through the Treaty of Segoulee (Sugauli) on December 1815, while the subsequent Treaty of Titalya (Tentulia) between the British EIC and Sikkim on 10 February 1817 restored the mountainous region between the Mechi and Tista rivers that had been held for a while by the Gorkhas, to the sovereign possession of Sikkim. By this combination of aggression and statecraft, the British also took formal possession of other Morang territories vacated by Nepal, and acquired oversight over the Darjeeling *terai* between the Mahananda and the Mechi as the suzerain power, through the *sanad* subsequently bestowed on 7 April 1817 by the EIC to Sikkim.

After the Darjeeling Grant by Sikkim on 1 February 1835 had transferred the hill territory enclaved by the Balasan, Kail and little Rangit rivers, the Great Rangit river, and the Rongnu river, the Senchal hill-crest and the Mahananda source region as a gift to the EIC, the territorial penalties imposed as a result of the brief Anglo-Sikkim conflict of February 1850 gave the EIC *de jure* possession of the Darjeeling *terai*. On 8 May 1850, these annexed and acquired territories were unified under British administration, and the new position was ratified by the Treaty of Tumlong with Sikkim on 28 March 1861, which supplanted all previous treaties between the British and Sikkim, giving Darjeeling district a direct border with Purnea. The new Terai subdivision of the district was formed in 1864, and was initially headquartered at Hansqua which had been a garrison site during the Gorkha occupation. In 1884, the sudivisional headquarters were relocated, when Siliguri was transferred to Darjeeling district from the newly reconstituted district of Jalpaiguri. Till the award of Boda PS to East Pakistan in 1947 during Partition, the districts of Purnea and Jalpaiguri had a common border, through which a road ran directly linking Jalpaiguri to Chopra.

In the early 18th century during the reign of Murshid Quli Khan, the land administration of Subah Bengal had also been modified by subdividing its Mughal *mahals* into smaller revenue circles called *chaklas*, in order to expand overall land revenue yields. While this encouraged territorial expansion and new settlement in Bengal, it also gave the regional zamindars and *faujgars* greater autonomy in administering their estates so long as overall revenue demands were met. Direct overlordship over Dinajpur thus remained in the hands of the local zamindars who continued to wield considerable fiscal as well as judicial powers. It is



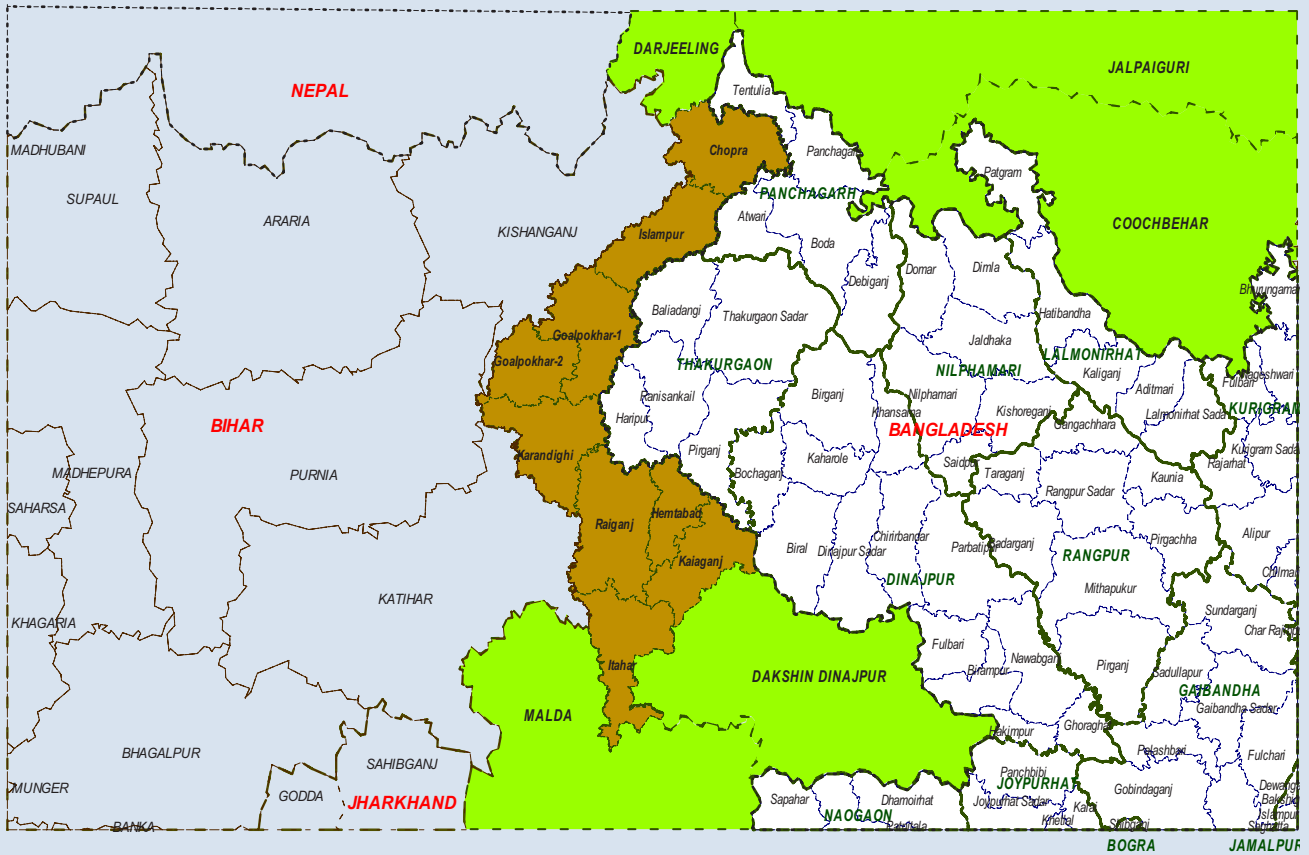
believed traditionally that the old zamindari estate of Dinajpur Raj was founded after the lands acquired in old Malda and Dinajpur by a court official Kasi Thakur while in the service of the Mughal governors of the *subah* during the long reign of Akbar were inherited by his favoured son or successor Srimanta Dutta Chaudhury. Since local legends assert that Kasi Thakur also had the social status of a *mahant*, there has been some debate on whether this original estate comprised *brahmottar* or *devottar* lands, since the rules of personal inheritance could not have applied in the case of the latter. An alternative derivation however relates the Dinajpur zamindari family to the zamindari family of the Patuli Duttas of Rarh, whose common ancestor Kabi Dutta is stated to have accumulated substantial holdings of land while in service under Lakshmansena.

The honorific title of Raja was bestowed by Aurangzeb in 1677 upon the second Dinajpur zamindar Sukdeb (1641-1681) who had by then successfully extended his estates eastwards and southwards to include the Nawabganj and Ghoraghat areas in Dinajpur *zila*, the Badalgachhi area in Naogaon *zila*, the Panchbibi and Khetlal areas in Joypurhat *zila*, and the Adamdighi and Shibganj areas of Bogra (Bagura) *zila* in modern Bangladesh. To celebrate this event, Sukdeb excavated the tank of Sukhsagar near the town of Dinajpur. Rising to its heyday under Prannath (1682-1733) and his successor and adoptive son Ramnath (1733-1760), who endowed Dinajpur with the ornate Kantaji palace and the magnificent *navaratna* temple at Kantanagar and also excavated the large watertanks at Pransagar (area 18.5ha, located near the village of Sahara, JL No.144, in Gangarampur block, Dakshin Dinajpur) and Ramsagar (area 20.8ha, located in the village of Tejpur southwards of Dinajpur town in Bangladesh), Dinajpur Raj was became one of the four largest and wealthiest zamindaris in Bengal, encompassing a total area of over 10,300 sq.km and meeting an annual revenue demand of over Rs. 19 lakh by the 1760s, amounting to nearly a tenth of the total revenue assessment for Bengal. As such, its later scions including Prannath and Ramnath were well known for their extravagances. However, the fortunes of the family changed very quickly after the accession of the British East India Company [EIC] to the Mughal Diwani of Bengal in 1765 during the reign of Shah Alam II, and its subsequent experiments at altering the rules of land tenure.

George Vansittart who had served as the EIC Supervisor in Dinajpur during 1770 had earlier noted the keenness among the new Indian mercantile class to invest the profits it had secured through the EIC private trade into lucrative revenue farming operations, also seeing in this the means to convince the older grantees to utilise their fallows and wastelands more productively rather than risking their forfeiture to the EIC. The new *ijara* system of 5-year revenue auctions that was instituted under Warren Hastings in 1772 substantially raised the effective land revenues that were derived by the EIC under the Diwani but is acknowledged to have triggered widespread famines in Bengal during the period. The parallel system of penalties instituted in cases of delays in realisation or revenue defaults led to the dispossession of many old landlords and resulting debate around the issue of proper land management versus 'hereditary' zamindari rights. In 1782, during the minority of Radhanath, the adoptive heir of the Dinajpur Raj, Raja Devi Singh of Dilwarpur near Murshidabad, who had been given additional control over the estates of Dinajpur, Rangpur and Idrakpur on the recommendations of Hastings and the Murshidabad Nawab, proceeded to levy heavy revenue demands on the peasantry, sparking off the long-drawn Fakir-Sanyasi revolt in northern Bengal in the late 18th and early 19th centuries. Partly as a consequence of this, Warren Hastings was ousted in 1784 and his role in dispossessing the minor Dinajpur raja allegedly for private gain formed one of the counts for his subsequent impeachment trial in London. Under his successor, Cornwallis, the revenue auction system was abolished and the old zamindari families were reinstated. The control of Dinajpur Raj passed effectively for a time into the hands of Janaki Ram Singh, brother of the dowager Rani Saraswati, who again resumed the profligate lifestyle of the later Dinajpur zamindars, thus falling into desperate revenue arrears. Upon his removal and confinement in 1787 on the orders of George Hatch, the new British Collector appointed to the Dinajpur Raj, the zamindari was placed for some time with a family relative Ramakanta Roy, who had also taken over the guardianship of Radhanath.

In 1792, Radhanath took personal control as Raja of the estate after attaining majority, but could not subsequently meet the high revenue assessments made under the new system of Permanent Settlement (1793) for several consecutive years. Accordingly, a large portion of the estate was sold off to many new intermediaries in order to realise its outstanding revenue dues, and the extent and power of the Dinajpur Raj dwindled considerably as a result. It would appear that the breakup of the Dinajpur Raj into several subsidiary estates was enforced as part of a British administrative design which did not favour the continued existence of a large and semi-independent feudal family fief in the new political context of Bengal. Thus as an inevitable consequence, the remainder of Dinajpur was reconstituted into the new British revenue district of Ghoraghat in 1793, reverting to its former name after subsequent administrative adjustments of its boundary that transferred of some of its tracts to the neighbouring British districts of Purnea, Malda, Rajshahi and Bogra. A small portion of the residual Dinajpur estate was transferred to West Dinajpur in 1947 after the Radcliffe award. The last Dinajpur raja Jagadishnath ultimately relinquished these lands and his title under the terms of the West Bengal Estates Acquisition Act 1953.

**MAP: Locational Setting of Uttar Dinajpur**



**Regional Economic History**

Uttar Dinajpur over its history has remained in the hinterland of each successive state or empire that rose within its regional space. Till its reconstitution as a separate district, the centres from which direct administrative control was exercised over the region always lay beyond its present boundaries. Its regional importance had therefore traditionally derived from economic or strategic factors rather than taking on a political form. The district throughout its history constituted a frontier across which cultural and linguistic exchange and trade took place. The sites of ancient and mediaeval settlement within its district boundaries thus serve as markers for the routes of this exchange. Besides those already mentioned including the still

unexplored fortress at Asuragarh in Goalpokhar-2 block, other places where archaeological remains, ancient water tanks and unexplored mounds are found scattered widely within Uttar Dinajpur include Salampur village (JL No.162) and the Karandighi water tank in Karandighi (JL No.168) both under Karandighi-2 GP in Karandighi block; Baje Bindol (JL No.35) under Bindol GP, Kasba Mahasho (JL No.176) under Kamlabari-1 GP and Fakirdighi near Mirual (JL No.174) under Kamlabari-2 GP, all of which are in Raiganj block; Sonabandha (JL No.80) and Hemtabad (JL No.81) under Hemtabad GP in Hemtabad block; Ratan (JL No.123) under Bhandar GP and Kachna (JL No.142) under Baruna GP both in Kaliaganj block; as well as Bhadrashila (JL No.85) and Porsha (JL No.110) villages under Itahar GP, Churaman (JL No.164) under Kapasia GP, Patirajpur (JL No.56) under Patirajpur-2 GP in Itahar, and Amati near Baidara village (JL No.247) under Joyhat GP, all in Itahar block. Their locations and the corresponding distribution of adjacent archaeological sites at adjacent places like Bairhatta in Dakshin Dinajpur and Agradigun in adjoining Bangladesh suggest ancient occupation of the region, with increasing density of larger urban settlements that have left archaeological records in brick and stone to the south and the east of Uttar Dinajpur. The northern villages in Islampur subdivision with their ancient fortifications, *gachh* tenancies and tribal communities thus constituted the former frontier with the forests of the *terai*.

In the ancient and mediaeval past when strategic and commercial communications were performed mainly by river, major settlements neighbouring Uttar Dinajpur such as Mahasthangarh and Devikot enjoyed the locational advantage of being situated on principal rivers that at the time distributed the perennial snowfed flows received from the Tista. Their river linkage to the Ganga was also critical. Both major empires that flourished in the region during the ancient period developed from the outward extension of imperial power originating from Magadh. The natural inroad made through the Uttar Dinajpur region by the Mahananda linked it to them as an economic hinterland. The rise and decline of subsequent historical kingdoms was thus affected by longterm change in these river courses. The changes around the 12<sup>th</sup> century were profound, when the Ganga began to shift from the Bhagirathi channel to its present course along the Padma, accompanying the eastward shift of the Tista distributaries that had previously fed into the Punarbhaba and Atrai. These gigantic riverine realignments which are believed to have followed a major earthquake in the east-central region of the Himalaya around 1100 CE, weakened the navigational link to earlier city settlements like Devikot, and eventually also caused the shift of regional power to Gaur and Pandua, near the junction of the Ganga with the Mahananda. Ultimately however, none of these ancient and mediaeval cities remained under occupation after the locus of power shifted altogether from the vicinity of the region to newer settlements that began to grow in places across the Ganga.

Along with the mounting threat of raids and conquest from the west, this overall regional decline was bound also to inexorable environmental and climatic changes. While the massive scale of tank construction and irrigation works commencing during the early mediaeval period reflect the gradual desiccation of a land that had formerly had ample access to water, the construction of strategic roads across the region by its mediaeval rulers reflect the need to maintain administrative communications and control through other alternative means. Besides allowing the urban settlements to survive for some time after the rivers had shifted, these measures sustained regional agriculture and increased the productivity of rice, turning Dinajpur into the most important rice growing and exporting region of Bengal. Strong evidence of this agricultural advancement is seen in the astonishing diversity in indigenous varieties of rice grown exclusively in the region, indicating centuries of continuous evolution as well as high levels of microclimatic and topographic adaptation in local rice farming practices. Over 75 distinct rice varieties are still named by Uttar & Dakshin Dinajpur farmers as having once been grown on a commercial scale within the region, with good paddy yields ranging from 2000 to 5000 kg/ha. In the deep river valleys subject to seasonal inundation, the local varieties included *gochi*, *boona*, *janroi*, etc. as well as wild rice such as *jhoro* and *ure*, all of which could float over standing water depths of upto 2m without injury. Other *aman* varieties such as *dudhkalam*, *dwarikasail*, *indrasail*, *jhingasail*, *katar*, *magursail* and *malsira* or *malsara* and *aus* varieties such as *dhaora*, *katar* and *kashipanja* flourished in drier microclimates on shallow lowlands and uplands. Early maturing *aman* varieties like *ashwinsail* and *kartiksail* or *mahipal* with a very short growing period admirably supplied

food needs while the main rice crop was still on the field, Very late varieties which could still be sown after failure of the initial rains included the fine aromatic *tulaipanji* and *kataribhog*. Besides table rice, many varieties which were used almost exclusively for processed rice foods such as *chira* (beaten rice) or *muri* (puffed rice), providing considerable household employment to women. Unfortunately, following the increasing penetration of HYV rice as well as accompanying changes in agronomic practices and consumer tastes, very few of these regional rice varieties have survived into the present, even in adjoining parts of Dinajpur in Bangladesh.

Given this longterm historical specialisation in rice farming, the economic prosperity of the region lay in the lucrative rice trade, which however had to find new export routes once the navigability of the old river links over the winter months when the main rice crop came in had declined. The growth of new riverports at Churamon on the junction of the Nagar and Mahananda serving the Itahar and Bairhatta-Ekdala settlement region, and later at Raiganj, at the point upto which the Kulik-Mahananda river route remains navigable through the year, serving the more northwestern parts of the region, both illustrate the sustained importance of riverine communications as well as the rice trade. Describing the system of riverine commerce he saw while visiting the Uttar Dinajpur region at the turn of the 19<sup>th</sup> century, Buchanan Hamilton noted the importance of Raiganj and its Bandar area as an assembling station and export mart, to which rice was carried either by draught animals or by smaller boats along the watercourses from places like Ranisankail. Growing to great importance during the days of the Dinajpur Raj, Raiganj was served throughout the year by larger boats capable of carrying upto 125 *maunds* (4.7mt) and had become the major market town of the region, while Churamon served boats of upto 200 *maund* (7.5mt) capacity during all seasons.

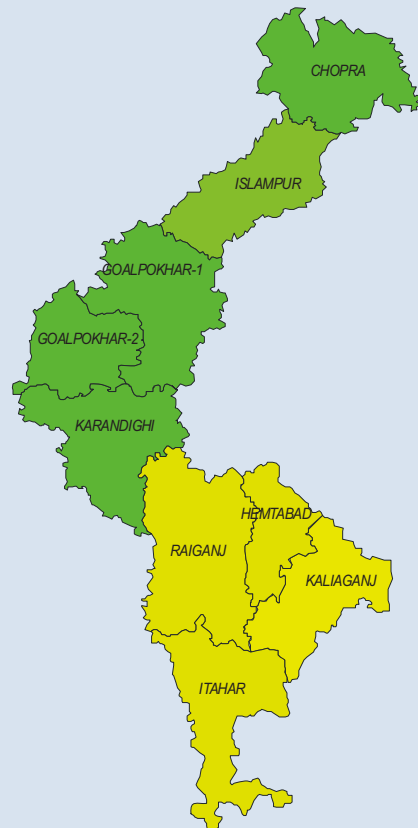
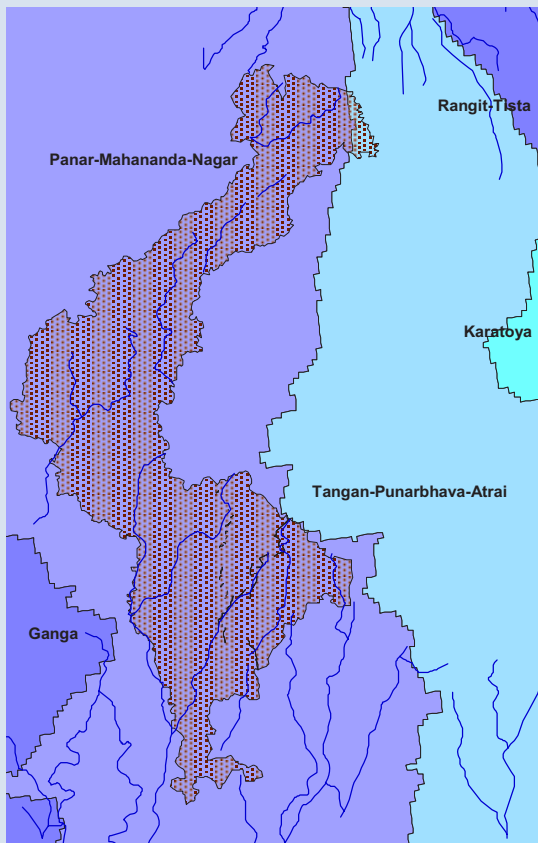
Since ancient times, the Pundravardhana region had also grown substantial crops of sugarcane (*paundraka* or *ikshu*) along its low river valleys), along with oilseed crops of *til*. By the late mediaeval and early modern period, the rivertrade in rice and in these other commodities was carried down the Bhagirathi to newer settlements like Murshidabad and Calcutta, where it yielded huge trading profits because it arrived near the end of the agricultural season when prices were dear. Hamilton in fact made particular note of the greater prosperity of peasants in the Barind regions which grew a single upland rice crop, compared to the peasants who occupied better irrigated lands in the densely populated tracts that were capable of sustaining multiple rice crops. He attributed this economic advantage to the proclivity of many Barind rice farmers to participate in the trading and transportation of rice during the season of agricultural slack, thus reaping the dual benefits of agriculture as well as enterprise. The strengthening of colonial power brought further economic focus to Raiganj as a major rice exporting market when the East Bengal State Railway line was laid between 1874-1879, establishing direct railway links between Raiganj, Dinajpur, Parbatipur and Rangpur, and then with the rest of Bengal after the Hardinge Bridge was built across the Padma in 1915. Besides considerably speeding up the transportation of rice, railway communications stimulated the growth of commercial trade in other agricultural commodities such as jute. Even after the decline of boat communications and river trade during the modern age, Raiganj has held on to this locational advantage because of its situation on the regional roadways network, and has continued to see phenomenal growth in population and commercial activities in recent years.

The regional history of Dinajpur is therefore replete with evidence of cyclic settlement, strongly coinciding with the degree of power and security provided by successive regimes, which encouraged phases of agricultural extension and growth of trade. Combined by adverse natural changes such as river realignments and physical calamities, the collapse of these regimes triggered long intervening phases of regional decline and depopulation of settlements, during which the locus of state organisation and economic activity moved from one part of the region to another. With the major political event of Partition, the fortunes of the region changed substantively because of isolation from its old hinterlands. The present state of development in Uttar Dinajpur and its future development prospects thus reflect new circumstances which have made it a fully-fledged administrative district amidst the continuity of economic patterns that date from its ancient past.

**The Regional Setting**

With the exception of the eastern fringes of Chopra block, the district of Uttar Dinajpur is located entirely within the catchment of the Mahananda river, which occupies a low entrenched valley between the major alluvial fans of the Kosi and the Tista over much of its course. The many administrative and territorial readjustments that have taken place in this region over time have given the district a peculiarly elongated shape which stretches for more than a full degree of latitude from 25° 11'N to 26° 49'N over a north-south distance of approximately 139km, but is narrow in its breadth between 87° 49'E to 90° 00'E longitudes. In its most constricted sections along the Islampur 'chicken's neck' corridor, Uttar Dinajpur thus shrinks to less than 10km in breadth, but widens to 40km at its broadest stretch between the western boundary of Raiganj Sadar block and Kaliaganj block's eastern borders. The combined Panar-Kankai-Mahananda-Nagar watershed, of which the free-draining Mahananda catchment forms a major constituent, straddles 7 southwestern CD blocks in Darjeeling district, all 9 CD blocks in Uttar Dinajpur and another 3 blocks in the adjacent Kushmandi-Bansihari region of Dakshin Dinajpur, besides including 10 CD blocks in Malda district as well as large tracts in eastern Nepal, northern Bihar and western Bangladesh. In terms of its overall size, settlement density, landuse and agricultural productivity, this is the most important hydrological catchment within North Bengal, offering access to abundant groundwater reserves because of the deep aquifer that underlies the Mahananda valley. Because of its sensitive fluvial and tectonic settings, extended ecological change across this region has been triggered by the progressive silting and drying of the Nagar, Tangan and other subsidiary streams, and the longterm westward shift of the Kosi, which in ancient times had drained directly into this catchment through the Panar. Longterm changes of this nature have also intensified human settlement in the Mahananda valley in Uttar Dinajpur, where ecological conditions have remained relatively more stable.

**MAP: Regional River System & Watersheds in Uttar Dinajpur**



Uttar Dinajpur district can be broadly demarcated into three principal physiographic zones, comprising the piedmont terraces found mostly in Chopra block to the north, the active Mahananda floodplain which occupies more than four-fifths of the district extending from Islampur block down into northern Itahar, and the mature floodplain that covers the lower extremities of Itahar block. Chopra block mainly comprises elevated *dangas* or piedmont terraces interspersed by lowlands, along with a segment of the Mahananda alluvial fan stretching over an area of 45 sq.km along its northwestern fringe. Local elevations decline rapidly in the piedmont zone (300-66m), leading to the acceleration and free flow of major rivers like the Mahananda which descend from the mountains, once their heavier colluvial sediments of gravel and sand have been deposited at the base of the foothills. In the active floodplains, the change in gradient (66-45m) remains sharp enough to cause scouring action by the rivers and frequent channel avulsion once they reach their full monsoon flow. Since the adjoining Tista and Kosi on the district's eastern and western flanks are both snowfed rivers with larger catchments and alluvial fans, the Mahananda has remained entrenched within its active floodplain. Other regional rivers like the Nagar, Tangan and Panar that currently flow within or close by Uttar Dinajpur district are either distributary systems or palaeochannels left by Tista and Kosi in earlier times, before their outward migration to their present course. High monsoon precipitation in the upper reaches of the Mahananda catchment can cause storm surges which flood the lower Mahananda valley, especially in the lower gradients of the mature floodplain (45-27m) near Itahar where the river discharge becomes less efficient. However the mature floodplains which occupy less than a tenth of the surface area of North Bengal are quickly succeeded by the large moribund region that intersects the meander plain of the Ganga in southern Malda. Consequently, with the regional hydrological system functioning as an integrated whole, strong backwash effects can extend up the major and minor river valleys when high monsoon precipitation in their catchments coincides with peak discharge levels of the Ganga as it reaches high spate. Monsoon waterlogging can thus occur in such circumstances in large parts of Hemtabad and Itahar, Karandighi and Goalpokhar-1 blocks.

As the topographic data ranges show, elevations in the Uttar Dinajpur touch a maximum of 92m in the piedmont zone and decline through the elongated length of the district to 27m in the mature floodplain. The decline is somewhat uneven and at depressions found along isolated *beels* and waterbodies in the district, elevations touch 25m. Nevertheless, with a quick drop in elevations past the piedmont zone, most of Uttar Dinajpur district presents a relatively flat topographic profile except along the river valleys, with the dominant slope consequently being much lower than the average slope in the district. Dakshin Dinajpur, in contrast, has much less highland and therefore a much more restricted elevational range, comprising mature floodplains and moribund *tal* areas. Such differences in physiographic conditions greatly influence the agroclimatic conditions and soil distributions in the two districts, and also determine the relative accessibility of irrigation water in their different parts.

With over four-fifths of Uttar Dinajpur being located within the active floodplains, the fluvial regimes of regional rivers have been subject to great alteration over time, thus affecting longterm settlement patterns in the district. Because of the break of gradient which causes silting and shifting of rivers, few stable settlements have survived in this region from ancient times. This feature, which also causes the resulting drainage patterns in the northern regions to diverge, is responsible for gradual distancing of the Tista-Rangit river system from the Mahananda-Nagar river system. While the process is not unusual in submontane areas, it can undergo sudden acceleration when flood discharges in the piedmont hit a peak following very high precipitation in the upper catchment. The Tista and Kosi, particularly, have both been subject to cataclysmic shifts in the past. With lowered gradients being encountered in this region, depressions tend to form when rivers verge away from their old courses, leaving a chain of oxbows, *beels* and cutoff meanders behind. In other places, natural marshlands are also formed, with hummocky areas interspersed between them.

**Table : Regional Topography and Physiographic Zones in Uttar & Dakshin Dinajpur**

District	Total Area [sq.km]	Montane Region [> 300m] [sq.km]	Piedmont Region [300-66m] [sq.km]	Active Flood-plain [66-45m] [sq.km]	Mature Flood-plain [45-27m] [sq.km]	Moribund Region [< 27m] [sq.km]
Uttar Dinajpur	3142	-	281	2565	296	-
% to North Bengal	14.4	-	3.9	42.9	18.3	-
Dakshin Dinajpur	2162	-	-	-	985	1177
% to North Bengal	9.9	-	-	-	60.8	25.8
North Bengal	21791	2339	7282	5979	1621	4570

	Maximum Elevation	Minimum Elevation	Elevation Range	Maximum Slope	Minimum Slope	Average Slope	Dominant Slope
Uttar Dinajpur	92m	25m	67m	2.6°	0.03°	1.32°	0.08°
Dakshin Dinajpur	34m	23m	11m	0.15°	0.01°	0.16°	0.05°

**Table : Regional Wetlands in Uttar & Dakshin Dinajpur**

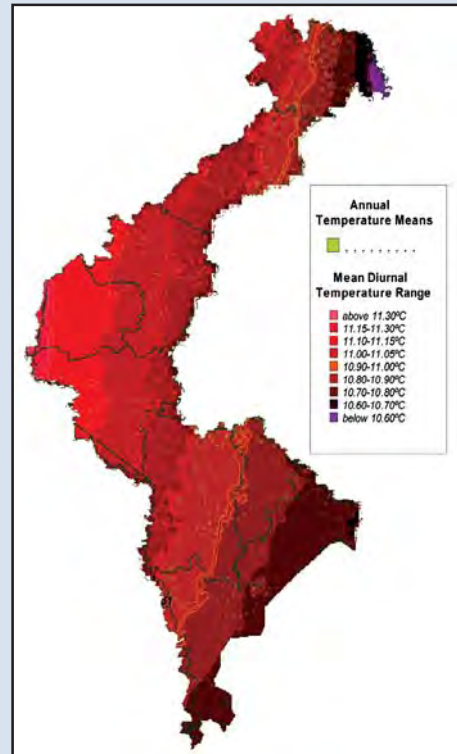
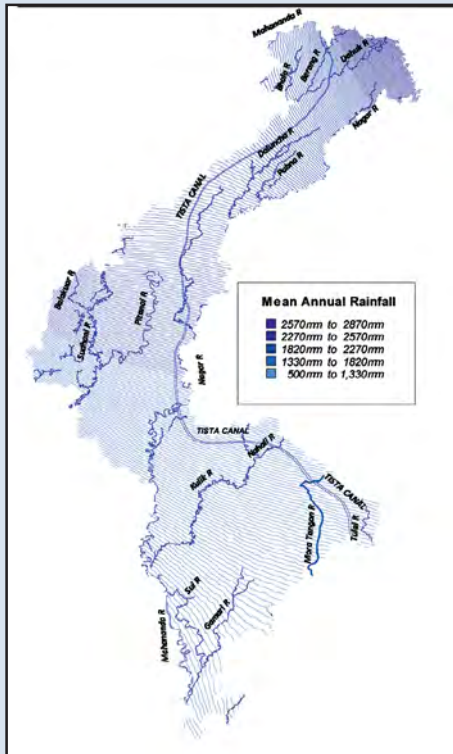
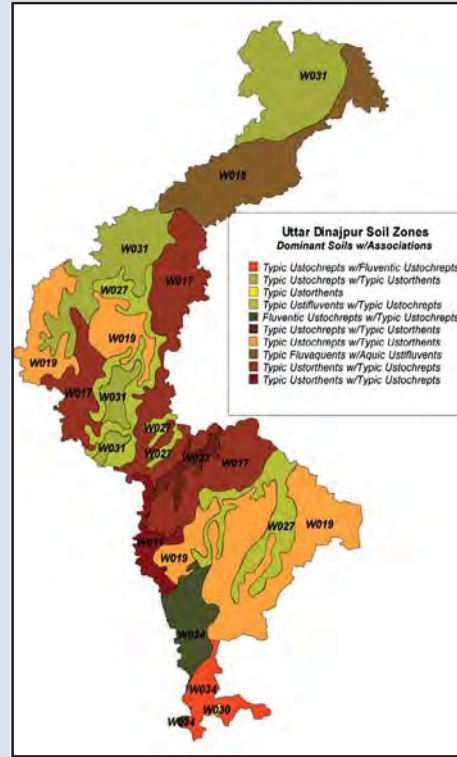
Waterbodies by Type	U & D Dinajpur Number	U & D Dinajpur Area [ha]	Total North Bengal Number	Total North Bengal Area [ha]
Ponds & Beels	37	1,465.93	110	4,877.68
Cutoff Meanders & Oxbows	129	2,044.50	673	9,785.07
Seasonally Waterlogged Depressions	69	1,037.51	396	22,642.94
Marsh-lands	153	5,477.68	177	37,305.69
Man-made Reservoirs	-	-	7	79.26
Man-made Tanks	103	663.53	213	1,384.15
Other Man-made Water-bodies	2	10.22	11	67.88
Total Water-bodies	493	10,699.37	1587	76,142.67
Total Natural Water-bodies	388	10,025.62	1356	74,611.38
Total Man-made Water-bodies	105	673.75	231	1,531.29

Source: WAPCOS, 2001

Note: Separate figures for Uttar & Dakshin Dinajpur are unavailable

Extracted satellite imageries for Uttar Dinajpur show a succession of light and dark areas marking a chain of *beels* that commence from the lower western end of Islampur block and traverse past Goalpokhar-1 and Karandighi blocks to the district's eastern edge. Associated with the present-day course of the Sarianai or Sariano river, these are remnants of an ancient channel through which the Mahananda had communicated more directly with the Nagar river than it does today. Similar wetland areas also occur in Raiganj block along the course of the Kulik, and along the dying channel of the Mora Tangan through eastern Kaliaganj and a part of Itahar block. The northern portion of Uttar Dinajpur has two identified fault structures running on either side of it, known respectively as the Kishanganj and Karatoya faults. Many *beel* areas have a highly disturbed topography indicating the possibility of land subsidence in the ancient past, during tectonic events which had disturbed the ancient courses of the Tista and the Kosi. Since drainage in such regions tends to be inefficient, a portion of the monsoon runoff regularly gets impounded between the months of August and February, reducing the extent of land available for crop agriculture in the affected blocks. Elsewhere within the district, where the topography is more regular and drainage is unobstructed, prime conditions usually exist for irrigated agriculture.

MAP: Physiographic & Agroclimatic Situation in Uttar Dinajpur District





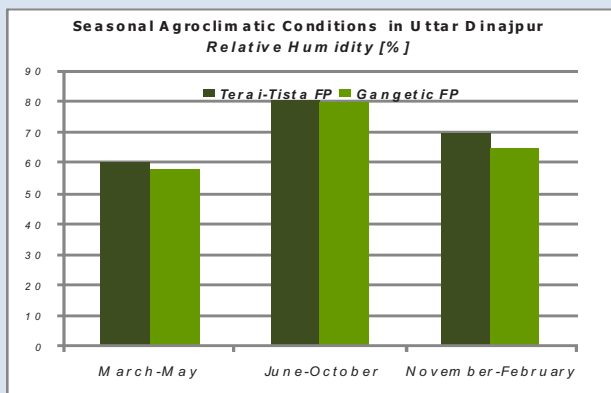
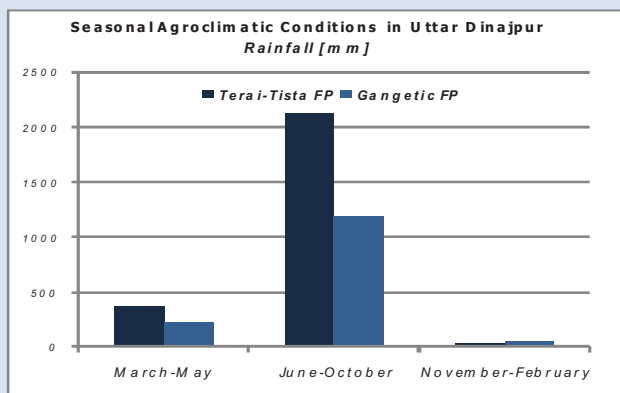
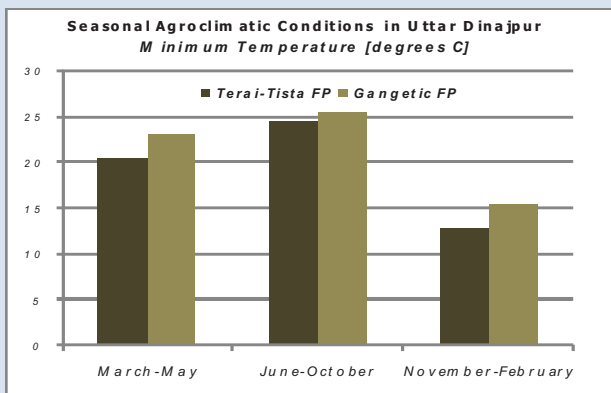
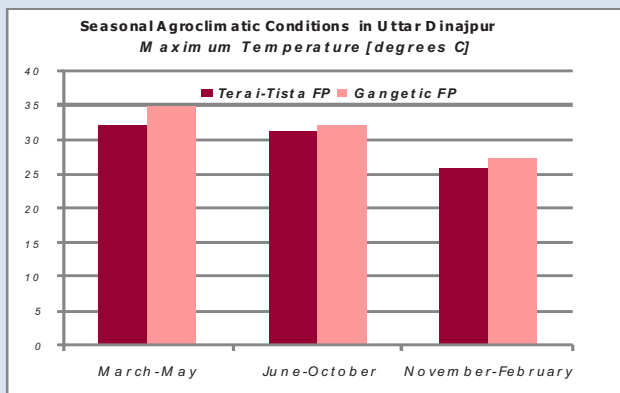
The depositional patterns of soils in Uttar Dinajpur district closely echo these past and present fluvial regimes. Most soils in the district are of recent alluvial origin, and are classified under the USDA soil classification system as *ustic* soils, *i.e.* soils which are essentially dry in nature, but retain enough soil moisture seasonally under managed conditions to support plant growth. Dominant soils along the western edges of Chopra, Goalpokhar-1 and Goalpokhar-2 blocks, as well as those in southern Raiganj, Itahar and most of Kaliaganj have a fine loamy texture with limited clay and humus accumulation, thus falling into the soil order of *inceptisols*. In contrast, the dominant soils in eastern Chopra, Islampur, eastern Goalpokhar-1 and most of Karandighi and Raiganj blocks which are of more recent alluvial origin, range from coarse loamy to fine loamy in texture and belong to the order of *entisols*. A small region of very young *fluventic* soils [soil-class W024] occurs in Itahar block near the cusp of the Mahananda, Sui and Gamari rivers, composed of alluvium recently deposited along river banks and streams, which generally lacks clay and organic materials. Slightly to the northwest of this, where the Kulik meets the Mahananda along the western edge of Raiganj block, is an area of active alluvium [soil-class W011] where deposition and active land-building processes are currently underway. Although the only primary area of old alluvium [soil-class W034] within Uttar Dinajpur is located in the region to the extreme south of Itahar blocks, most of the transported soils found along the lower river valleys of the district are overlaid by a light-coloured or *ochric* surface layer that is generally poor in organic carbon.

In terms of drainage classes, the soil zones forming the western areas in Chopra, Goalpokhar-1 and Goalpokhar-2 blocks are largely characterised by imperfect drainage conditions. Most of Kaliaganj [soil-class W019] as well as similar portions of Goalpokhar-1 and Goalpokhar-2 carry the additional hazard of water impoundment and subsequent flooding, while the low-lying Mahananda-Gamari confluence area [soil-class W024] in Itahar subject to active erosion processes. Thus the best drained soils [soil-class W017] in Uttar Dinajpur district occur in the region bounded by the Nagar and Kulik river basins, extending over the eastern tracts of Goalpokhar-1 and Karandighi, as well as the northern Raiganj and northern Hemtabad. Although another patch of similar soil also recurs in southwestern Karandighi, drainage conditions in the central Karandighi region which marks the ancient passage of the Mahananda are more disturbed however. Dominant soils in the region [soil-class W017] lying to the south of the Dahuk river and spreading over eastern Chopra and most of Islampur block show higher water tables combined with poor drainage conditions, indicating that the region had been under inundation until comparatively recent times.

Rainfall patterns vary quite widely within Uttar Dinajpur, with sharp divergence in annual precipitation between the five southern blocks of Karandighi, Raiganj, Hemtabad, Kaliaganj and Itahar, and the four *terai* blocks of Chopra, Islampur, Goalpokhar-1 and Goalpokhar-2. Thus, while southernmost Itahar receives around 1400-1500mm of rain annually, northeastern Chopra receives much higher precipitation ranging between 240-2700mm p.a. A number of minor rivers thus originate from the overflows from the *beels* that dot the imperfectly drained areas in the northern regions of the district. While most of these flow southeastwards to feed the Nagar, the overflows from *beels* located in the western Goalpokhar region feed the Mahananda river system. The combination of regional elevational ranges and precipitation patterns also result in characteristic variations between mean diurnal temperature ranges in different parts of Uttar Dinajpur. While mean annual temperatures gradually increase from the north to the south of the district, diurnal temperature ranges increase from the west to the east. Itahar, Kaliaganj and Chopra blocks thus show much higher variations between daily minimum and daily maximum temperatures than either Goalpokhar-2 or Karandighi blocks. These local climatic patterns also have an important bearing on agricultural and occupational profiles in the different Uttar Dinajpur blocks.

**Chart: Agro-climatic Classification of Uttar Dinajpur Blocks**

Agro-climatic Regions	Agro-climatic Sub-regions	CD Blocks
EASTERN HIMALAYAN REGION Zone-2	Terai-Tista Floodplain	Chopra, Islampur, Goalpokhar-1, Goalpokhar-2, Karandighi
LOWER GANGETIC PLAIN REGION Zone-3	Gangetic Flood-plain	Raiganj, Hemtabad, Kaliaganj, Itahar



Because of the unusual shape and dimensions of the district, the two Uttar Dinajpur subdivisions belong to two separate agroclimatic regions, in terms of the standard classification of agroclimatic zones adopted in India. The northern blocks stretching from Chopra till Karandighi are part of the Tista-Terai floodplain within the Eastern Himalayan Region [EHR Zone-2], while the southern blocks from Raiganj to Itahar are part of the Gangetic floodplain within the Lower Gangetic Plain Region [LGPR Zone-3]. Significant differences exist therefore, between seasonal temperature minima and maxima, seasonal rainfall patterns and seasonal humidity levels in the two subdivisions of Uttar Dinajpur, which have direct bearing on the differences in settlement and activity patterns in different blocks of the district. Being located at higher latitudes, the Islampur SD blocks experience lower seasonal temperature maxima and minima in comparison to the Raiganj SD blocks. However, while the spring and summer-monsoon temperature ranges remain similar between the two regions, winter temperatures fall appreciably lower in the Islampur SD blocks, as a result of which winter temperature ranges are higher in the Islampur blocks. The Islampur SD blocks also receive

appreciably higher precipitation compared to the Raiganj SD blocks. However, with 84 percent of the annual rainfall in the Islampur SD region being concentrated during the monsoon months between June-October, year-round precipitation is better distributed in Raiganj SD than in Islampur SD, where winter rain is strikingly low compared to peak monsoon rainfall. Relative humidity levels in Raiganj SD are also appreciably lower compared to the Islampur SD region during the spring and winter seasons. During the monsoon, however, relative humidity in both agroclimatic becomes nearly equal because of the presence of high vapour pressure in both regions.

### Human Settlement in Uttar Dinajpur

With agriculture continuing to provide the mainstay for human economic activities in Uttar Dinajpur over much of its history, the patterns of human settlement in the district are inevitably influenced by such physiographic and agroclimatic factors. Areas like Kaliaganj, Islampur and parts of Goalpokhar, where the combination of soils, rainfall and drainage conditions, and the accessibility of irrigation have been favourable, have traditionally attracted high rates of settlement. Other factors that have influenced settlement patterns include historical events such as the addition of new territories which expanded land availability and enabled the extension of agriculture, as well as political events such as Partition and the resulting waves of immigration into the district. Until relatively recently however, economic diversification outside the agricultural sector was minimal. As a result, the growth of new settlement as a consequence of population growth was widely distributed across the district, instead of being concentrated around particular settlement centres. The Uttar Dinajpur region had no recorded urban population until 1931, and has maintained a predominantly rural settlement profile over the period since, even though population growth has accelerated considerably.

Demographic growth in Uttar Dinajpur over the past century has been examined in the detail in the subsequent chapter on migration and resettlement, where specific focus has been brought on the impact of Partition migration on the demographic and occupational profiles of the district. Hence for the present purpose, a broad review may be made of regional settlement trends in the different police station [PS] areas of Uttar Dinajpur between 1901-2001. Over the century, the PS population (*i.e.* combined rural & urban population) in the Uttar Dinajpur region has risen five-fold from 4.76 lakh in 1901 to 24.42 lakh in 2001. Curiously, however, population growth in the initial decades was relatively minor till 1941, when the overall PS population had barely surpassed 4.8 lakh. Over this period, the PS areas in Islampur SD, which were then part of another district in another state, showed strong depopulation trends when compared to the rest of the district, with negative population growth extending well beyond the influenza-effected decade 1911-1921. Since, with their uneven topography and high frequency of water impoundment and wetlands, these *terai* regions as well as those in surrounding districts were traditionally considered to be unhealthy and were subject to the endemicity of epidemic diseases such as malaria, this early tendency towards depopulation reflected both the burden of disease as well as outmigration for economic reasons. The bulk of 20<sup>th</sup> century population growth in the Uttar Dinajpur region, which occurred between 1961-2001 when the regional population rose by 451 percent, thus followed the political events of Partition and the transfer of the Islampur SD territories from Purnea to Uttar Dinajpur. Over this period, the former tendency towards slow and occasionally negative population growth that had prevailed in the Islampur region when it was still a part of Bihar, was strongly reversed by its transfer to West Bengal.

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The fastest growing PS areas over the century in Uttar Dinajpur were Raiganj PS (790% growth) and Karandighi PS (508 % growth). Chopra PS experienced the slowest settlement growth (280%) over the century, while population growth in the other PS areas ranged between 329 percent (Goalpokhar PS) and 389 percent (Itahar PS). Thus a marked tendency towards polarised population growth and marked settlement concentration around the Raiganj-Karandighi area has been noticed through the post-Independence period and particularly in the most recent decades. Average settlement density in Uttar Dinajpur has risen over the period from 152 persons per sq.km in 1901 to 781 persons per sq.km in 2001, which is lower than the average settlement density for West Bengal as a whole in 2001. Because of migration and rapid urbanisation through the recent period, Raiganj PS now records peak settlement density exceeding 1106 persons per sq.km, in comparison to which settlement pressure in Chopra (589 persons per sq.km) and Hemtabad (620 persons per sq.km) are still limited, in relative terms.

**Table : Human Settlement Patterns in Uttar Dinajpur  
CENSUS POPULATIONS, 1901-2001**

Police Station	Census 1901	Census 1911	Census 1921	Census 1931	Census 1941	Census 1951	Census 1961	Census 1971	Census 1981	Census 1991	Census 2001
Chopra	58730	58147	42298	45750	51813	52858	68868	101570	128699	165720	223022
Islampur	63684	63092	45866	49610	56184	57317	87942	133949	171780	230326	294689
Goalpokhar	109964	108872	79196	85661	97012	98969	147025	213863	285266	362467	471902
Karandighi	52405	51884	37742	40823	46233	47165	75196	122232	169171	230121	318881
Raiganj	59218	61044	59454	59034	65553	101870	150072	208274	271532	428203	527268
Hemtabad	26654	27476	26761	27440	28747	34680	46769	62000	77881	95157	118822
Kaliaganj	54340	60130	58890	60914	61425	67366	93911	122407	153769	187935	237669
Itahar	50996	56430	55267	58306	73231	80953	104709	142855	181977	226800	249541
<b>Uttar Dinajpur DT</b>	<b>475991</b>	<b>487075</b>	<b>405474</b>	<b>427538</b>	<b>480198</b>	<b>541178</b>	<b>774492</b>	<b>1107150</b>	<b>1440075</b>	<b>1926729</b>	<b>2441794</b>

### Population Density per sq.km

Police Station	Census 1901	Census 1911	Census 1921	Census 1931	Census 1941	Census 1951	Census 1961	Census 1971	Census 1981	Census 1991	Census 2001
Chopra	155	154	112	121	137	140	182	268	340	438	589
Islampur	184	183	133	144	163	166	255	388	498	667	854
Goalpokhar	164	162	118	128	144	147	219	318	425	540	703
Karandighi	135	134	98	106	119	122	194	316	437	595	824
Raiganj	124	128	125	124	137	214	315	437	569	898	1,106
Hemtabad	139	143	140	143	150	181	244	324	406	497	620
Kaliaganj	174	193	189	195	197	216	301	393	493	603	763
Itahar	141	156	152	161	202	223	289	394	502	625	688
<b>Uttar Dinajpur DT</b>	<b>152</b>	<b>156</b>	<b>130</b>	<b>137</b>	<b>154</b>	<b>173</b>	<b>248</b>	<b>354</b>	<b>461</b>	<b>617</b>	<b>781</b>

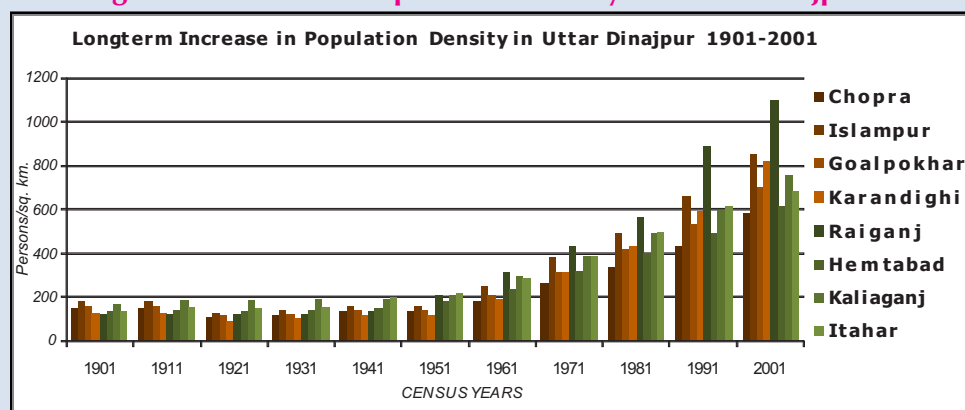
## DECENNIAL DENSITY INCREMENT

Police Station	Base 1901	1901 - 1911	1911- 1921	1921- 1931	1931- 1941	1941- 1951	1951- 1961	1961- 1971	1971- 1981	1981- 1991	1991- 2001
Chopra	155	-2	-42	9	16	3	42	86	72	98	151
Islampur	184	-2	-50	11	19	3	89	133	110	170	186
Goalpokhar	164	-2	-44	10	17	3	72	100	106	115	163
Karandighi	135	-1	-37	8	14	2	72	122	121	158	229
Raiganj	124	4	-3	-1	14	76	101	122	133	329	208
Hemtabad	139	4	-4	4	7	31	63	79	83	90	124
Kaliaganj	174	19	-4	6	2	19	85	91	101	110	160
Itahar	141	15	-3	8	41	21	65	105	108	124	63
<b>Uttar Dinajpur DT</b>	<b>152</b>	<b>4</b>	<b>-26</b>	<b>7</b>	<b>17</b>	<b>20</b>	<b>75</b>	<b>106</b>	<b>107</b>	<b>156</b>	<b>165</b>

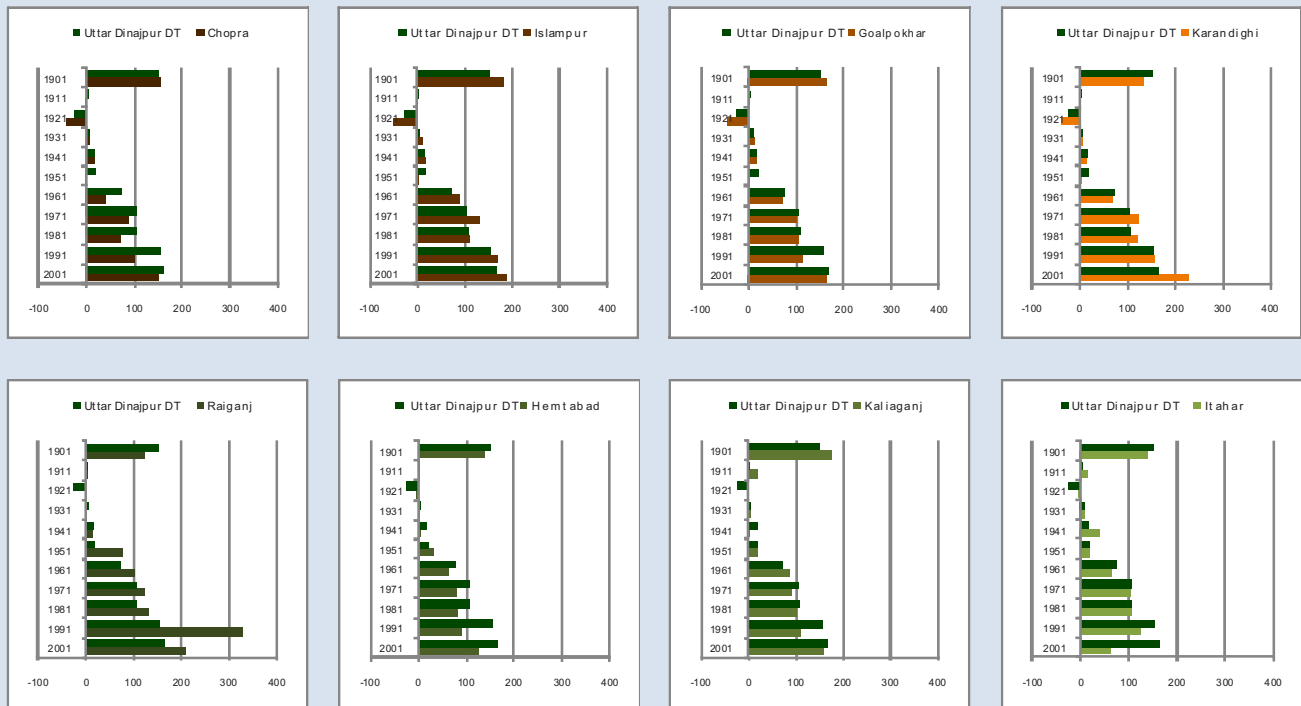
Source: Calculations on Census Database for various Census years

During the pre-Independence period, changes in settlement density in the Uttar Dinajpur region were low, rising marginally from 152 persons per sq.km in 1901 to 154 persons per sq.km in 1941. Between 1911-1931, Kaliaganj PS with its railway town had been the most densely settled area in the district, but was surpassed by Itahar PS in 1941, and by both Raiganj PS and Itahar PS in 1951. Over this period, the Islampur PS and Goalpokhar PS areas were the most densely settled parts of Islampur SD, which was then included in Bihar. Nevertheless, despite the formation of an international border in 1947, none of the PS areas in Islampur SD showed much increase in settlement density between 1941-51, and accelerated settlement only came into evidence in this region after 1961, following their transfer from Bihar to West Bengal. Thus as population growth in the Uttar Dinajpur region accelerated considerably under the impetus of Partition migration after 1951, the Islampur SD areas offered additional living space, easing the overall migration pressure on the region. From 1971 onwards, the settlement density patterns show greater evening out across the district, indicating that relatively large proportions of new settlement are now being absorbed also by areas like Chopra PS and Hemtabad PS which were relatively less populated during the initial phase. Both Raiganj PS and Islampur PS have absorbed substantial settlement after 1961. However, while new settlement in these two PS areas is driven partially by urbanisation and rural-urban migration trends, Karandighi PS has absorbed substantial new settlement in its rural areas. Obviously, rural settlement in Karandighi and several other rural PS areas in Uttar Dinajpur has been driven by specifically economic causes such as expanding livelihood opportunities, in addition to the new settlement induced by specific political events such as Partition and the resulting population displacements.

**Chart : Longterm Increase in Population Density in Uttar Dinajpur 1901-2001**



**CHARTS: Population Settlement & Settlement Density Increments in Uttar Dinajpur PS Areas, 1901-2001**

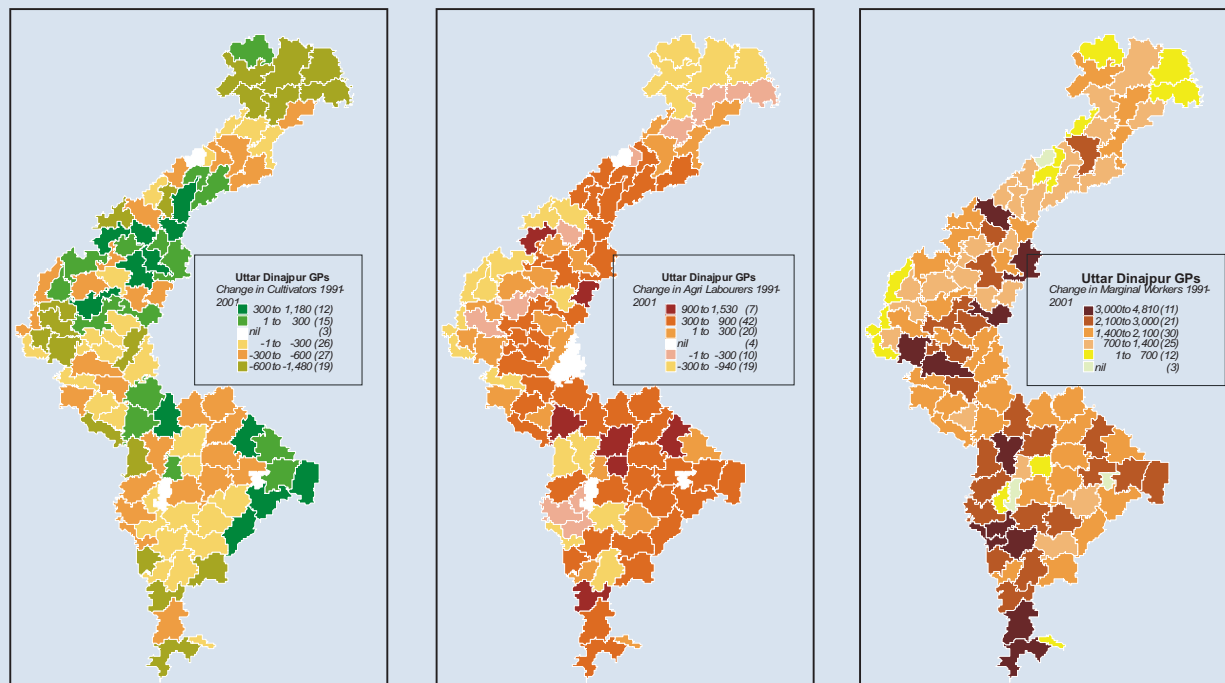


Village level changes in the Uttar Dinajpur rural population over the most recent census decade 1991-2001, as seen in the accompanying *mouza* maps, further establish that recent population growth has been more concentrated in the Islampur SD region than in the Raiganj SD region. Many *mouzas* located between Chopra and the northern and western parts of Goalpokhar-1 block thus show intercensal population increases of 500 or more persons, with the fastest growing *mouzas* recording increases exceeding 2500 persons over the period. In eastern Goalpokhar-1 and western Goalpokhar-2 blocks, as also along the Bangladesh border with Raiganj, Hemtabad and Kaliaganj, many *mouza* populations record absolute declines over the same period, indicating that there is a pronounced tendency for outmigration from these border *mouzas*. Similar absolute declines have also occurred in the Itahar *mouzas* located along the Mahananda, and along the Kaliaganj and Itahar block borders with Dakshin Dinajpur. Since similar population declines have occurred in the *mouzas* in the immediate vicinity of the municipal townships of Raiganj and Islampur, this indicates that a certain amount of rural-urban migration from outlying rural areas into the major towns is now occurring with increasing frequency in Uttar Dinajpur district. The impetus for such migration is economic in nature and is driven by the livelihood searches of the rural population in the district.

Unlike the general trend in most parts of West Bengal, where the number of cultivators registered an absolute decline between 1991-2001, many Uttar Dinajpur villages have recorded absolute increases in the number of cultivators over the same period. The main regions where such increases have occurred include the border areas of eastern Islampur block, much of Goalpokhar-1 and Goalpokhar-2 blocks, northern Raiganj and the Kaliaganj border with Dakshin Dinajpur district. In these regions, the principal livelihood choices made by rural residents are still provided by agriculture. Elsewhere in the district, particularly in Chopra and its adjoining areas in Islampur, there has been a marked decline in the number of cultivators, because of the largescale switchover from crop farming to small tea plantations. Many villages in Karandighi, Hemtabad and Itahar also show similar declines. These declines are however of a

less marked order than those which have occurred in the Chopra-Islampur region, indicating that farm-based activities still continue to be the main livelihood choice of the rural population in most areas of Raiganj SD.

### MAP: Change in Agricultural Workforce in Uttar Dinajpur, 1991-2001



Average landholding sizes among owner and tenant cultivators in Uttar Dinajpur however are relatively low at around 0.96ha per operational holding, thus bracketing nearly four-fifths of the district's cultivators into the category of marginal farmers who often need to supplement farming activities with occasional wage-work. The incidence of landlessness is also very high in Uttar Dinajpur, which has seen substantial growth in the rural population without much livelihood diversification occurring over the recent decades. Consequently, agricultural wage-work now absorbs around 40 percent of the active rural workforce in the district. GP-level changes in the number of agricultural labourers in Uttar Dinajpur between 1991-2001 show substantial increases in the absolute number of agricultural labourers in many parts of the district. While in the main, such increases have occurred in intensively cultivated regions like western Islampur, Goalpokhar-2, Karandighi, central Raiganj and Kaliaganj and Itahar which already had a substantively high agricultural workforce, there have also been substantial increases in the number of agricultural wage-workers in regions like eastern Islampur, Goalpokhar-1, northern Raiganj and eastern Kaliaganj blocks where the intensification of agriculture has been more recent and has followed the introduction of *boro* rice cultivation under irrigated conditions. Besides main agricultural wage-workers, the main agricultural areas in Uttar Dinajpur also absorb a sizeable number of seasonal wage-workers who work in a marginal capacity. Hence, apart from Chopra and the northern regions of Islampur where there has been some diversification recently from peasant farming activities to plantation agriculture, both seasonal and main work opportunities in rural Uttar Dinajpur are still principally derived from agriculture. Sustained growth of agriculture has therefore sustained the remarkable growth of the rural population in Uttar Dinajpur, through both migration as well as natural increase.

Uttar Dinajpur has a very large concentration of underprivileged social groups such as the Scheduled Castes and the Scheduled Tribes as well as Muslims within its rural population. Landlessness tends to be high among the Muslim and SC groups, who therefore constitute a sizeable proportion of the agricultural workforce within the district. The ST population is more concentrated in particular Uttar Dinajpur blocks like Islampur, Goalpokhar-1, Karandighi and Hemtabad, and is thinner elsewhere within the district. Most ST farmers possess some land, but had originally settled in wasteland tracts where cultivable land was of marginal quality and was located in drier upland areas or on the edge of forests, etc. Since the ST concentrations tend to be high in single-cropped regions, they have to combine subsistence farming with wage-work for at least a part of the year. Rural SC groups show particularly high concentration in the Islampur SD region, particularly in blocks like Islampur, Goalpokhar-2 and Karandighi, as well as in Hemtabad, Kaliaganj and Itahar in Raiganj SD. Many of these areas have both ethnic SCs such as Rajbanshis as well as occupational SC groups that migrated into Uttar Dinajpur after Partition. However, in the rural areas of Raiganj block, the SC concentration is relatively thin. The Muslim concentration is heaviest in Islampur block and in the Hemtabad-Kaliaganj region, and is fairly high through Goalpokhar-1, Karandighi, Raiganj and Itahar. In Chopra and Goalpokhar-2, on the other hand, the rural concentration of Muslims is relatively low.

The concentration of other social communities is highly uneven in the district, with Raiganj, Itahar and Karandighi accounting for the bulk of the general caste population, while its presence in Goalpokhar-1, Goalpokhar-2 and Hemtabad blocks is particularly low. The social composition of block populations has an important role in determining the levels of human development in each Uttar Dinajpur block, as is evident in the literacy differentials between communities and regions. Because of the large presence of weaker social groups in the Islampur SD blocks, literacy attainments there are more uneven than among the Raiganj SD blocks. In general, literacy levels in Uttar Dinajpur varying directly with the proportionate concentration of general castes in the block population, and inversely with the proportionate concentration of Muslims. While separate figures for blockwise literacy among the Muslim community from census sources, strong literacy differentials are observed to exist between the SC and ST residents of Uttar Dinajpur, with female literacy levels in particular being extremely low among the ST communities.

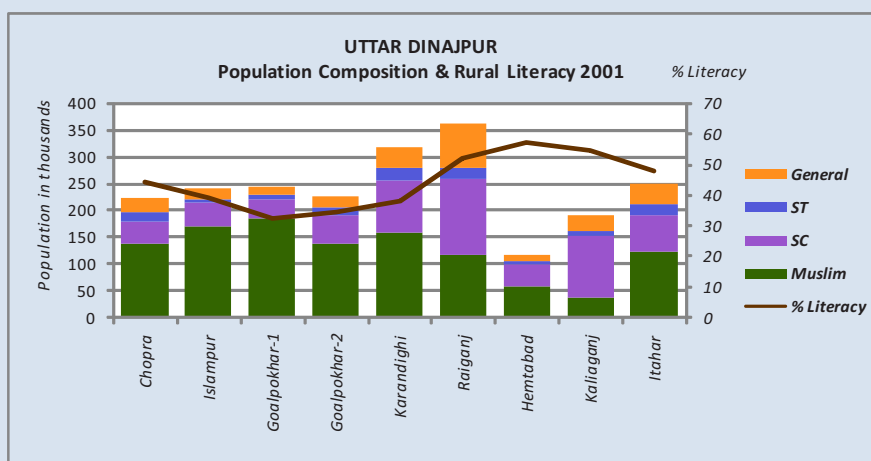
**Table : Differentials between SC, ST & Total Literacy Rates in Uttar Dinajpur, 2001**

CD Block	2001 Population	2001 Total SCs	2001 Total STs	% LITERACY RATES								
				Total	Total SC	Total ST	Total Males	SC Males	ST Males	Total Females	SC Females	ST Females
Chopra	223022	41315	15825	43.3	52.7	28.9	55.9	68.1	41.2	29.7	36.3	16.2
Islampur	241951	42589	5833	38.4	54.8	27.4	50.3	69.0	40.5	25.7	39.4	13.8
Goalpokhar-1	245430	35137	9273	31.6	50.7	17.9	42.6	63.7	27.5	19.8	36.7	8.3
Goalpokhar-2	226472	52449	14086	34.1	44.8	26.1	44.0	55.5	34.5	23.5	33.4	17.2
Karandighi	318881	97802	23398	37.6	44.1	23.1	48.9	58.7	33.1	25.5	28.7	13.1
Raiganj	362056	138964	21149	51.5	49.6	35.3	63.0	63.3	46.6	39.1	34.9	23.9
Hemtabad	118822	41056	4523	56.7	51.4	28.7	67.1	65.2	39.4	45.7	36.9	17.8
Kaliaganj	190019	114922	8656	54.1	48.6	38.7	66.4	62.9	50.2	41.1	33.6	27.1
Itahar	249541	66659	19593	47.4	45.2	26.1	57.8	59.3	38.0	36.5	30.4	14.1
<b>Uttar Dinajpur DT</b>	<b>2441794</b>	<b>676582</b>	<b>124865</b>	<b>47.9</b>	<b>50.1</b>	<b>28.7</b>	<b>58.5</b>	<b>63.5</b>	<b>39.5</b>	<b>36.5</b>	<b>35.7</b>	<b>17.6</b>



CD Block	2001 Rural Population	2001 Rural SCs	2001 Rural STs	%LITERACY RATES								
				Rural	Rural SC	Rural ST	Rural Males	Rural SC Males	Rural ST Males	Rural Females	Rural SC Females	Rural ST Females
Chopra	223022	41315	15825	43.3	52.7	28.9	55.9	68.1	41.2	29.7	36.3	16.2
Islampur	241951	42589	5833	38.4	54.8	27.4	50.3	69.0	40.5	25.7	39.4	13.8
Goalpokhar-1	245430	35137	9273	31.6	50.7	17.9	42.6	63.7	27.5	19.8	36.7	8.3
Goalpokhar-2	226472	52449	14086	34.1	44.8	26.1	44.0	55.5	34.5	23.5	33.4	17.2
Karandighi	304986	94610	23335	36.0	43.7	23.0	47.4	58.4	33.0	23.9	28.0	13.0
Raiganj	347108	134912	20986	50.3	49.2	34.8	62.0	63.0	46.2	37.7	34.4	23.3
Hemtabad	118822	41056	4523	56.7	51.4	28.7	67.1	65.2	39.4	45.7	36.9	17.8
Kaliaganj	190019	114922	8656	54.1	48.6	38.7	66.4	62.9	50.2	41.1	33.6	27.1
Itahar	249541	66659	19593	47.4	45.2	26.1	57.8	59.3	38.0	36.5	30.4	14.1
<b>Uttar Dinajpur DT</b>	<b>2147351</b>	<b>623649</b>	<b>122110</b>	<b>42.9</b>	<b>48.3</b>	<b>27.8</b>	<b>54.2</b>	<b>62.2</b>	<b>38.7</b>	<b>30.8</b>	<b>33.5</b>	<b>16.7</b>

Source: Census 2001



Although a small section among the occupational SC groups who had migrated into Uttar Dinajpur from East Bengal now live in urban areas like Raiganj and Kaliaganj, the ST and Muslim residents of the district still live by and large in rural areas. Hence the low rural literacy attainments in Uttar Dinajpur are strongly influenced by the extent of concentration of these two social groups within the block population, as visible in the accompanying chart. Literacy rates in most Islampur SD blocks thus tend to lag behind the literacy attainments of most Raiganj SD blocks mainly because the concentration of Muslims in the block population is high, while the concentration of general castes and SC groups in these blocks is low. Between the three underprivileged groups, the rural Muslims who generally share the same livelihoods as the rural SCs lag behind them in terms of development attainments. The worst placed of the three social groups are the ST communities of Uttar Dinajpur, among whom current female literacy attainments still amount to much below half the literacy levels attained by the other communities.

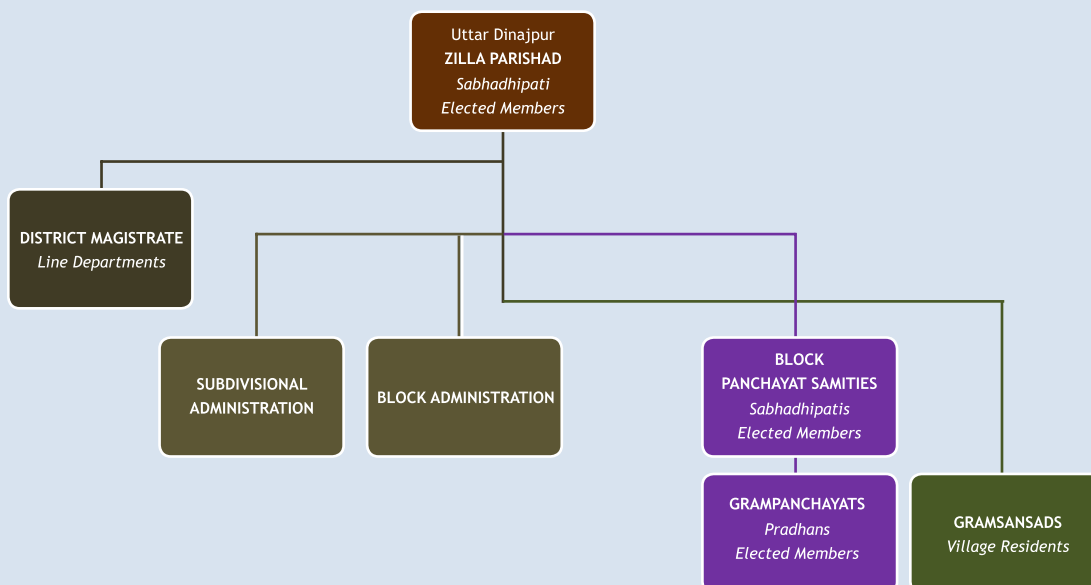
### Development Administration in Uttar Dinajpur

Uttar Dinajpur has 9 second-tier block panchayats or Panchayat Samitis corresponding to its nine CD blocks, while the structure for local self governance in the 1477 inhabited villages is provided by the 98

Gram Panchayats [GPs] that exist in the district. Among these, Islampur SD includes 5 Panchayat Samitis and 59 GPs serving the 741 inhabited villages located within the five northern CD blocks of the district, while Raiganj SD includes 4 Panchayat Samitis and 39 GPs that serve its 736 inhabited villages. With just over half of the district area within their electoral jurisdiction, the members elected to the Uttar Dinajpur district council or Zilla Parishad from the Islampur GPs collectively represent 56 percent of the rural population of Uttar Dinajpur. Uttar Dinajpur also has 1422 Gram Sansads to aid participation in grassroots decision-making by its rural population. Of these, 824 are located within the Islampur SD blocks, while the remaining 598 Sansads are located within Raiganj SD. However, despite its numeric superiority in such electoral and administrative aspects, Islampur SD lags considerably behind Raiganj SD in terms of development attainments. As noted earlier, regional backwardness in the Islampur SD blocks may be attributed partially to the administrative changes that have frequently occurred within Uttar Dinajpur after the original transfer of territories from Bihar, and partially to intrinsic cultural and socioeconomic differences that continue to separate the two SDs, impeding the process of regional administrative integration in the district.

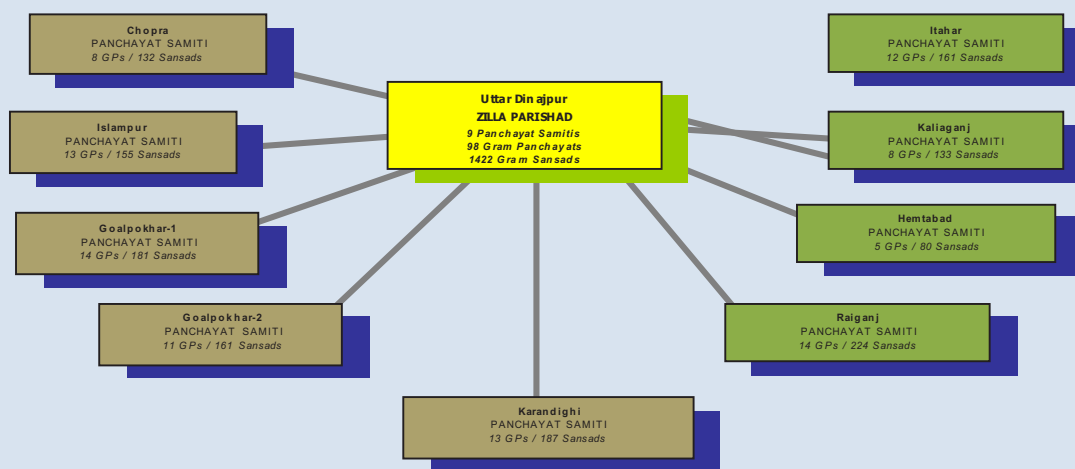
The command chain in the development administration of the district is depicted schematically in the chart below. The Zilla Parishad [ZP], forming the apex, maintains coordination between the administrative bureaucracy and the electoral bodies in Uttar Dinajpur, with the Office of the District Magistrate located at Raiganj holding administrative charge over all governance authorities and line departments. The subdivisional administration located Islampur and Raiganj provides an intermediate administrative layer between the District Administration and the Block Development Offices, while the block Panchayat Samitis are in overall charge of development decision-making at block level. The District Magistrate and the Block Development Officers [BDOs], who function respectively as Member-Secretaries of the Zilla Parishad and the block Panchayat Samitis, serve as the controlling officers of the development administration in Uttar Dinajpur.

**CHART: Command Chain of the Uttar Dinajpur Development Administration**



The Panchayati Raj institutions [PRIs] in the district are organised in the manner below to facilitate decentralised decision-making, with the PRI bodies at each of the three tiers functioning as statutory bodies in the development administration. Planning decisions at the district level are made by the District Planning Committee [DPC], while the development plans for each block are finalised by the Block Planning Committees. Under the envelope of decentralised governance and decentralised decision-making, the block plans are formulated by integrating the proposals sent up from the GPs, while the District Plan is formulated by the DPC after integrating the block plan proposals received from the 9 CD blocks in Uttar Dinajpur. The Gram Sansads in the district are participatory decision-making institutions set up to ensure the sensitivity of GP planning proposals to felt local needs among the people. For the municipal areas in the district, a parallel decision-making chain connects the base level Ward Committees to the Municipal authority which serves as the Urban Local body [ULB] in charge of urban development decisions in the district. The Executive Officers [EOs] of the municipalities, who serve as Member-Secretaries of the ULBs, provide the point of administrative contact between the urban authorities and the District Administration.

**CHART: Structure of PRI Institutions in Uttar Dinajpur District**



In addition to these statutory development authorities and mechanisms, Uttar Dinajpur also has a network of civil society organisations that widen the process of articulation, advocacy and participation of the people in the development process. These comprise various voluntary organisations including civil society organisations [CSOs] and community based organisations [CBOs], women’s groups and other self-help groups [SHGs], as well as formal and informal town and *para* clubs, etc. Although a number of these community organisations have been in existence for varying lengths of time, the civil society movement in Uttar Dinajpur is still in its infancy. To strengthen its voice and its development role, a District Platform of NGOs, CSOs and CBOs has been created recently under the DFID-supported West Bengal Civil Society Support Program [WBCSSP]. The platform facilitates networking of civil society organisations from different parts of the district on the basis of common development perceptions and common programmes. By creating a corporate presence for these organisations that is wide enough to span the entire district, the platform improves liaisoning between development stakeholders in Uttar Dinajpur, and also facilitates their formal induction into the district planning and development process in a monitoring & evaluation role.

**Chapter Annex: Panchayati Raj Institutions [PRIs] & Urban Local Bodies [ULBs]  
in Uttar Dinajpur, 2001**

Serial	PRI/ULB Jurisdictions	Area [sq.km]	2001 House holds	2001 Population	2001 Males	2001 Females	2001 SC/ST Population	% SC/ST	2001 Non-SC/ST Population	% Non-SC/ST
<i>Population residing under Panchayat Samitis/Gram Panchayats</i>										
	<b>Chopra</b>	<b>380.82</b>	<b>41721</b>	<b>223022</b>	<b>115097</b>	<b>107925</b>	<b>57140</b>	<b>25.6</b>	<b>165882</b>	<b>74.4</b>
1	Sonapur	67.02	5595	40900	21005	19895	13468	32.9	27432	67.1
2	Haptiagachh	36.51	2423	16570	8476	8094	5207	31.4	11363	68.6
3	Majhiali	74.86	4717	34273	17701	16572	19642	57.3	14631	42.7
4	Daspara	50.93	4450	31155	16034	15121	3033	9.7	28122	90.3
5	Ghirnigaon	46.54	3934	27362	14097	13265	2685	9.8	24677	90.2
6	Lakhipur	30.95	3199	22280	11549	10731	1765	7.9	20515	92.1
7	Chutiakhor	38.49	3934	26178	13492	12686	2351	9.0	23827	91.0
8	Chopra	35.52	3437	24304	12743	11561	8989	37.0	15315	63.0
	<b>Islampur</b>	<b>329.44</b>	<b>46118</b>	<b>241951</b>	<b>124263</b>	<b>117688</b>	<b>48422</b>	<b>20.0</b>	<b>193529</b>	<b>80.0</b>
1	Ramganj-1	30.90	3789	26383	13750	12633	5688	21.6	20695	78.4
2	Ramganj-2	9.83	824	5636	2913	2723	1148	20.4	4488	79.6
3	Kamalagaon-Sujali	31.35	3709	26953	13803	13150	1026	3.8	25927	96.2
4	Agdimti-Khanti	39.38	4359	28416	14513	13903	1455	5.1	26961	94.9
5	Gobindapur	40.32	4327	26997	13924	13073	4169	15.4	22828	84.6
6	Matikunda-1	18.60	2058	14207	7305	6902	2374	16.7	11833	83.3
7	Matikunda-2	39.01	2847	20255	10479	9776	9960	49.2	10295	50.8
8	Panditpota-1	19.99	2148	13933	7012	6921	2111	15.2	11822	84.8
9	Panditpota-2	32.63	2779	19200	9859	9341	7157	37.3	12043	62.7
10	Islampur	7.56	1289	9621	4985	4636	4111	42.7	5510	57.3
11	Gunjaria	19.40	3312	20113	10250	9863	2840	14.1	17273	85.9
12	Gaisal-1	19.31	1532	17134	8697	8437	3129	18.3	14005	81.7
13	Gaisal-2	21.15	2083	13103	6773	6330	3254	24.8	9849	75.2
	<b>Goalpokhar-1</b>	<b>355.11</b>	<b>45266</b>	<b>245430</b>	<b>126465</b>	<b>118965</b>	<b>44410</b>	<b>18.1</b>	<b>201020</b>	<b>81.9</b>
1	Pokharia	31.00	3702	25207	13060	12147	5935	23.5	19272	76.5
2	Mahua	21.12	2398	15224	7792	7432	431	2.8	14793	97.2
3	Goalpokhar	42.71	2937	19540	10024	9516	3055	15.6	16485	84.4
4	Jaingaon	16.13	1802	11529	5948	5581	374	3.2	11155	96.8
5	Khagore	19.31	2251	13790	7135	6655	2048	14.9	11742	85.1
6	Panjipara	29.65	4192	29946	15750	14196	6553	21.9	23393	78.1
7	Dharmapur-1	20.59	2081	11259	5840	5419	6043	53.7	3021	26.8
8	Dharmapur-2	26.29	2582	17919	9189	8730	3233	18.0	14686	82.0
9	Lodhan	20.50	2379	14377	7328	7049	154	1.1	14223	98.9
10	Goti	37.24	3324	22170	11249	10921	2818	12.7	19352	87.3
11	Sahapur-1	34.22	2344	26667	13675	12992	6932	26.0	19735	74.0
12	Sahapur-2	23.68	1809	13087	6860	6227	4367	33.4	8720	66.6
13	Goagaon-1	23.91	2377	17764	9103	8661	3401	19.1	14363	80.9
14	Goagaon-2	25.91	2126	15899	8185	7714	3791	23.8	12108	76.2

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Serial	PRI/ULB Jurisdictions	Area [sq.km]	2001 House holds	2001 Population	2001 Males	2001 Females	2001 SC/ST Population	% SC/ST	2001 Non-SC/ST Population	% Non-SC/ST
	<b>Goalpokhar-2</b>	<b>298.69</b>	<b>40849</b>	<b>226472</b>	<b>116758</b>	<b>109714</b>	<b>66535</b>	<b>29.4</b>	<b>159937</b>	<b>70.6</b>
1	Belan	38.81	3912	20947	10853	10094	6043	28.8	14904	71.2
2	Sahapur-1	13.14	1532	7699	3970	3729	967	12.6	6732	87.4
3	Sahapur-2	22.64	2194	15838	8137	7701	2555	16.1	13283	83.9
4	Bidyandapur	37.86	3189	21199	10877	10322	7191	33.9	14008	66.1
5	Torial	32.00	2976	19970	10323	9647	7840	39.3	12130	60.7
6	Chakulia	35.07	3918	28797	14952	13845	5565	19.3	23232	80.7
7	Nizampur-1	21.32	2382	15847	8138	7709	4517	28.5	11330	71.5
8	Nizampur-2	21.46	2169	16671	8598	8073	5737	34.4	10934	65.6
9	Kanki	25.43	3654	24782	12852	11930	8690	35.1	16092	64.9
10	Surjapur-1	11.74	2231	13194	6734	6460	3622	27.5	9572	72.5
11	Surjapur-2	29.76	3303	23175	11844	11331	9725	42.0	13450	58.0
	<b>Karandighi</b>	<b>388.4</b>	<b>54440</b>	<b>304986</b>	<b>156430</b>	<b>148556</b>	<b>117945</b>	<b>38.7</b>	<b>187041</b>	<b>61.3</b>
1	Dalkola-1	16.48	1804	15378	7865	7513	7874	51.2	7504	48.8
2	Raniganj	34.68	3634	27574	14085	13489	11241	40.8	16333	59.2
3	Bazargaon-1	27.96	2380	18199	9313	8886	6046	33.2	12153	66.8
4	Bazargaon-2	24.23	1962	13492	6812	6680	6139	45.5	7353	54.5
5	Domohana	40.07	4928	36584	18603	17981	12372	33.8	24212	66.2
6	Rasakhawa-1	26.50	2883	21279	10943	10336	5000	23.5	16279	76.5
7	Rasakhawa-2	45.51	3930	27832	14374	13458	11486	41.3	16346	58.7
8	Karandighi-1	23.49	2656	19130	9807	9323	9026	47.2	10104	52.8
9	Karandighi-2	29.93	3103	25375	13149	12226	11614	45.8	13761	54.2
10	Lahutara-1	23.63	2604	18327	9293	9034	5690	31.0	12637	69.0
11	Lahutara-2	28.49	2766	20769	10768	10001	10480	50.5	10289	49.5
12	Altapur-1	25.45	3146	25114	12925	12189	10306	41.0	14808	59.0
13	Altapur-2	22.39	2184	18609	9522	9087	3989	21.4	14620	78.6
	<b>Raiganj</b>	<b>466.19</b>	<b>67986</b>	<b>347108</b>	<b>178919</b>	<b>168189</b>	<b>155898</b>	<b>44.9</b>	<b>191210</b>	<b>55.1</b>
1	Bhatun	43.23	3501	25614	13328	12286	7433	29.0	18181	71.0
2	Mahipur	39.32	3594	22559	11568	10991	11592	51.4	10967	48.6
3	Bindol	38.23	3556	21208	10817	10391	9020	42.5	12188	57.5
4	Sherpur	40.43	3538	23384	12184	11200	13579	58.1	9805	41.9
5	Rampur	37.02	3291	23699	12220	11479	12236	51.6	11463	48.4
6	Jagdishpur	37.33	3641	25882	13312	12570	12140	46.9	13742	53.1
7	Sitgram	35.27	3584	25837	13182	12655	8430	32.6	17407	67.4
8	Kamlabari-1	17.01	3345	24594	12712	11882	9878	40.2	14716	59.8
9	Kamlabari-2	18.36	1975	16160	8298	7862	9081	56.2	7079	43.8
10	Barua	38.03	4752	34977	17959	17018	16390	46.9	18587	53.1
11	Maraikura	11.99	2725	18905	9851	9054	7183	38.0	11722	62.0
12	Gouri	32.43	3511	26199	13430	12769	8490	32.4	17709	67.6
13	Bahin	36.24	4435	32471	16688	15783	12080	37.2	20391	62.8
14	Birghai	41.32	4403	30732	16054	14678	19216	62.5	11516	37.5

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	<b>Hemtabad</b>	<b>191.82</b>	<b>24999</b>	<b>118822</b>	<b>61192</b>	<b>57630</b>	<b>45579</b>	<b>38.4</b>	<b>73243</b>	<b>61.6</b>
1	Chainagar	38.78	3027	19213	9761	9452	8196	42.7	11017	57.3
2	Bishnupur	37.72	3582	20971	10836	10135	8342	39.8	12629	60.2
3	Naoda	38.58	3709	21557	11080	10477	11696	54.3	9861	45.7
4	Hemtabad	38.27	4644	29911	15484	14427	9854	32.9	20057	67.1
5	Bangalbari	38.47	4243	27170	14031	13139	7491	27.6	19679	72.4
	<b>Kaliaganj</b>	<b>301.9</b>	<b>39222</b>	<b>190019</b>	<b>97805</b>	<b>92214</b>	<b>123578</b>	<b>65.0</b>	<b>66441</b>	<b>35.0</b>
1	Anantapur	51.19	3560	67853	34969	32884	27334	40.3	40519	59.7
2	Dhankail	38.10	4094	25986	13370	12616	19992	76.9	5994	23.1
3	Radhikapur	40.76	3333	21240	10915	10325	12016	56.6	9224	43.4
4	Bochadanga	39.50	4037	26158	13410	12748	17601	67.3	8557	32.7
5	Bhandar	29.59	3149	21640	11206	10434	14588	67.4	7052	32.6
6	Mustafanagar	38.32	4184	28219	14632	13587	15034	53.3	13185	46.7
7	Baruna	38.68	3176	20779	10567	10212	16069	77.3	4710	22.7
8	Malgaon	37.44	6746	25794	13336	12458	12155	47.1	13639	52.9
	<b>Itahar</b>	<b>362.4</b>	<b>51134</b>	<b>249541</b>	<b>127295</b>	<b>122246</b>	<b>86252</b>	<b>34.6</b>	<b>163289</b>	<b>65.4</b>
1	Surun-1	16.61	2685	19160	9738	9422	2404	12.5	16756	87.5
2	Surun-2	21.20	2175	14330	7167	7163	4893	34.1	9437	65.9
3	Durgapur	35.86	3581	25398	13178	12220	10798	42.5	14600	57.5
4	Durlabhpur	38.63	3666	24366	12293	12073	14687	60.3	9679	39.7
5	Patirajpur	38.73	3460	22117	11278	10839	15990	72.3	6127	27.7
6	Itahar	39.27	4557	31959	16300	15659	12979	40.6	18980	59.4
7	Gulandar-1	18.54	2289	15133	7852	7281	1694	11.2	13439	88.8
8	Gulandar-2	21.69	2434	15927	8200	7727	1454	9.1	14473	90.9
9	Kapasias	32.54	4076	26352	13385	12967	2157	8.2	24195	91.8
10	Marnai	44.58	3654	24011	12275	11736	4335	18.1	19676	81.9
11	Joyhat	41.08	3615	23066	11705	11361	11181	48.5	11885	51.5
12	Chhayghara	7.90	607	3482	1797	1685	2154	61.9	6732	38.1
<i>Population residing under Urban Local Bodies [ULBs]</i>										
	Islampur M	13.99	9735	52738	28145	24593	9931	18.8	42807	81.2
	Dalkola M	15.75	4386	24681	13003	11678	7053	28.6	19692	71.4
	Raiganj M	10.64	27549	165212	87458	77754	27076	16.4	138136	83.6
	Kaliaganj M	11.67	10060	47650	24600	23050	11211	23.5	36439	76.5
<b>Uttar Dinajpur DT</b>		<b>3126.82</b>	<b>463465</b>	<b>2437632</b>	<b>1257430</b>	<b>1180202</b>	<b>801030</b>	<b>32.9</b>	<b>1638666</b>	<b>67.2</b>

## Chapter 2

### STATUS OF EDUCATION IN UTTAR DINAJPUR

#### Proliferation of Modern Education in Uttar Dinajpur

Within the human development paradigms that crosslink attainments in income, knowledge and health, educational achievements occupy a special place. Acting as an instrument in the human development process, improvements in educational status directly enhance skill-acquisition, occupational mobility and earning capabilities, evening out existing income asymmetries within the population. They also improve the response of the population to modern healthcare, and are associated positively with reductions in infertility and infant mortality that lead to the lowering of population growth rates. However, improved educational achievement is also targeted by the human development process for its own sake, since with development in other spheres and the removal of social inequalities, it can be anticipated that the demand for education will rise. Therefore, detailed evaluation of the current status of education in Uttar Dinajpur plays a vital part in the assessment of the district's human development potential.

The administrative history of Uttar Dinajpur has had a strong bearing on the present state of education in the district. From the time it was constituted till its bifurcation in 1992, the erstwhile district of West Dinajpur had traditionally been a low literacy district in West Bengal, recording an overall literacy rate of 49.8 percent in 1991 and a female literacy rate of 39.3 percent, both well under the state average. The bifurcation of West Dinajpur in 1992 brought its educationally backward areas under the new district of Uttar Dinajpur, subsequent to which the new district recorded overall literacy of 47.9 percent and female literacy of 36.5 percent in 2001. Rural literacy was even lower at 42.9 percent overall and 30.8 percent for females. Clearly, the improvement of literacy and educational performance deserve continuing priority in Uttar Dinajpur.

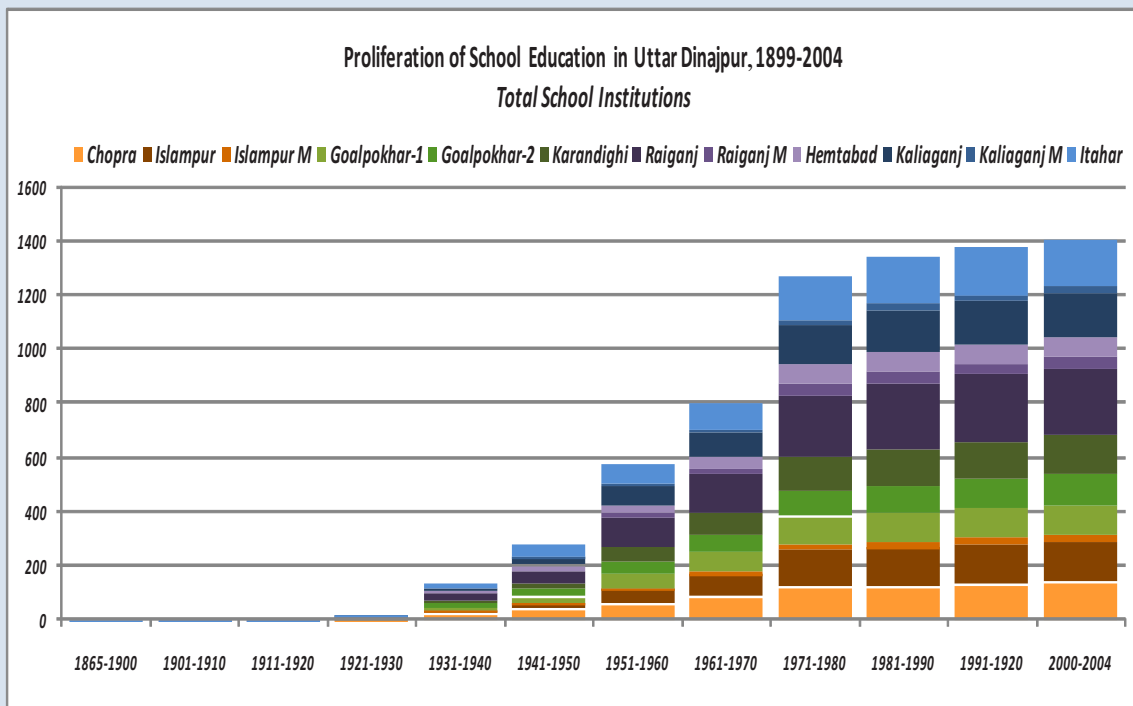
**Table: Spread of School Education in Uttar Dinajpur District, 1899-2004**

CD Block/Town	1899- 1900	1901- 1910	1911- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2000- 2004	Total Institutions
Chopra	-	-	-	4	18	15	25	21	39	2	7	6	137
Islampur	-	-	-	1	13	7	29	32	53	6	5	3	149
Islampur M	-	-	-	-	1	-	4	6	11	1	2	-	25
Goalpokhar-1	-	-	-	-	5	21	27	23	27	2	6	1	112
Goalpokhar-2	-	-	-	2	18	8	15	18	35	5	6	10	117
Karandighi	-	-	-	-	9	12	34	30	43	6	4	5	143
Raiganj	-	-	-	3	26	20	57	37	80	20	3	-	246
Raiganj M	-	-	-	1	-	-	18	-	25	-	-	-	44
Hemtabad	-	1	1	1	4	13	10	10	28	4	-	1	73
Kaliaganj	-	-	-	1	10	20	39	19	60	10	-	2	161
Kaliaganj M	-	-	-	-	-	1	8	4	7	2	-	-	22
Itahar	1	1	0	2	14	23	36	26	58	11	5	1	178
Net Decadal Addition		1	2	1	15	118	140	302	226	466	69	38	29
<b>Total Institutions</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>19</b>	<b>137</b>	<b>277</b>	<b>579</b>	<b>805</b>	<b>1271</b>	<b>1340</b>	<b>1378</b>	<b>1407</b>	

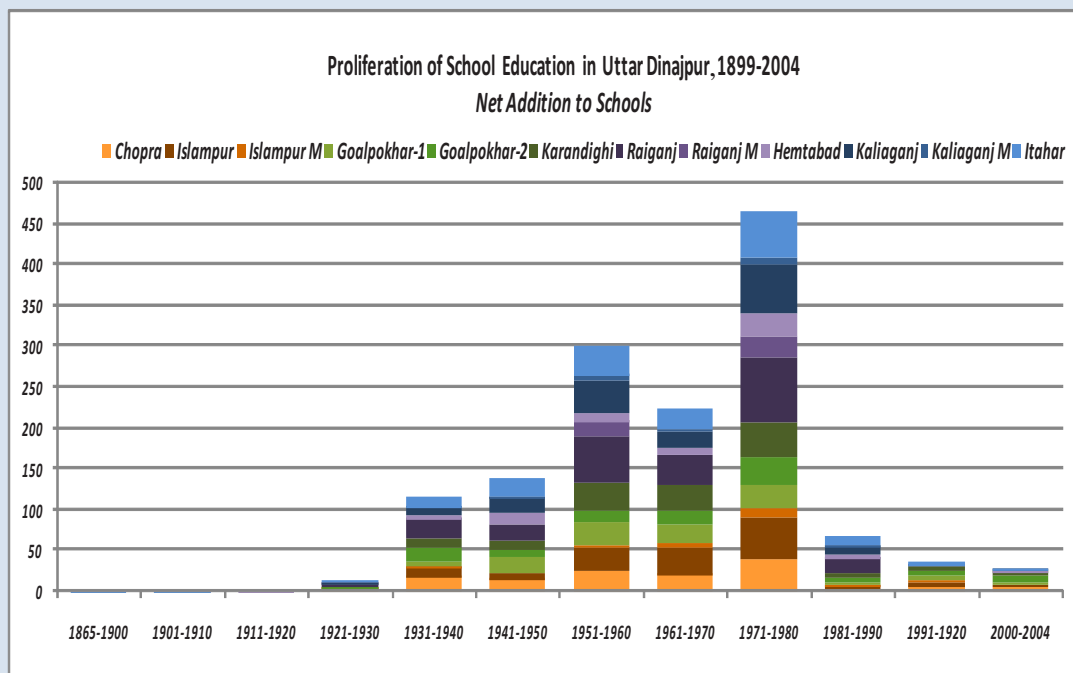
Source: DISE 2006, Uttar Dinajpur

Undivided Dinajpur was reconstituted as a colonial district under British rule in 1786 following the alienation of the greater part of the old zamindari estates of Dinajpur Raj, soon after the East India Company had acquired the Diwani of Bengal. Reporting on the state of education in the region during his tour through Dinajpur in 1807, Francis Buchanan Hamilton noted that formal instruction in the early 19th century was still being imparted through the medium of the traditional maqtabs and pathsalas. By 1857, nine Government schools had been established across the undivided district, 8 of which offered vernacular education while one provided instruction in English, besides which one vernacular institution had been granted fund support. By 1871, the number of English institutions in undivided Dinajpur had multiplied to 4 and the number of vernacular institutions receiving financial aid to 215, in addition to which 18 schools exclusively meant for girls and one training institution were functioning at the time with State assistance.

However, as revealed above, the areas that constitute the modern district of Uttar Dinajpur had made little progress in public education till the commencement of the 20th century. Following the constitution of separate District School Boards under the Bengal (Rural) Primary Education Act of 1930, a substantial number of new schools were established between 1931-47. In the post-Independence period, the growth of school institutions was sharp between 1951-1980 but has tapered off in the period since in the blocks included under Raiganj SD. In Islampur SD, where public education initially had a delayed start, the school system has continued to expand over the more recent decades, thus evening out some of the educational differentials that had previously been visible between the two sub-divisions. Nevertheless, under the new economic policies initiated in 1991 which have strongly impacted on the spread of public education in India, the school infrastructure in Uttar Dinajpur still remains inadequate compared to the number of eligible learners because of the slowdown in the establishment of new school institutions. In consequence, educational backwardness in Uttar Dinajpur persists.







Coronation High School at Raiganj, which secured affiliation to Calcutta University in 1917, is the oldest high school institution in Uttar Dinajpur district, followed by Kaliaganj High School which was established in 1941. With the only collegiate institution in undivided Dinajpur being assigned to East Pakistan in 1947, the resulting gap in higher education was filled by the establishment of Raiganj University College in August 1948, along with the state-sponsored college established in September 1948 at the headquarters town of Balurghat which is now in Dakshin Dinajpur district. In 1962, Raiganj University College shifted affiliation to the University of North Bengal and is now under the jurisdiction of the newly-constituted Gour Banga University established at Malda in March, 2008. The other collegiate institutions in Uttar Dinajpur include another general college and a B.Ed college in Raiganj, three general colleges located at Islampur, Dalkhola and Kaliaganj, and a general college and teachers' training institution at Itahar.

At the end of 2004, the total educational network in Uttar Dinajpur comprised a total of 4424 educational centres, with a gross enrolment of just under 12.90 lakh learners and 11,677 teachers in position. Within this network, general educational institutions accounted for around 37 percent of the collective institutional strength and student enrolments and 63 percent of total teaching appointments, with the primary educational system alone accounting for one third of the total institutional strength, a quarter of total student enrolments and 42 percent of total teaching strength. In contrast, middle-level educational institutions, High Schools and HS institutions collectively accounted for less than 5 percent of the total institutions, 11 percent of enrolments and 21 percent of teaching appointments. Thus the education system in the district was weighted firmly towards primary education.

In addition to enrolments, institutional strength and staffing under the formal educational system, a notable role was played within the district by non-formal education [NFE] system, which accounted for over 62 percent of the total number of educational centres and their learners, and for 36 percent of teacher appointments. The bulk of this load was taken up by the anganwadi education centres established under ICDS, followed by the Sishu Siksha Kendras [SSKs] established under the national programme for the universalisation of basic education.

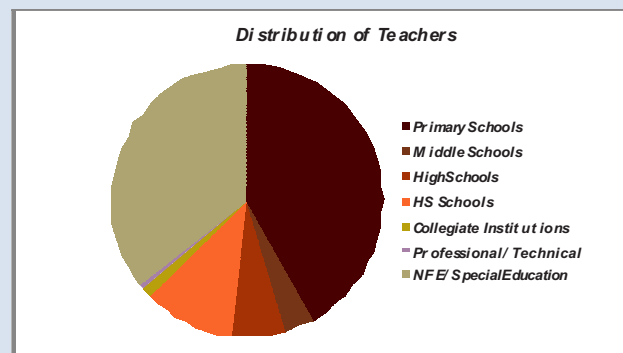
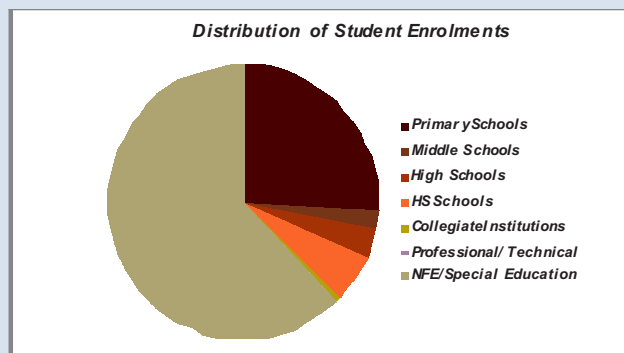
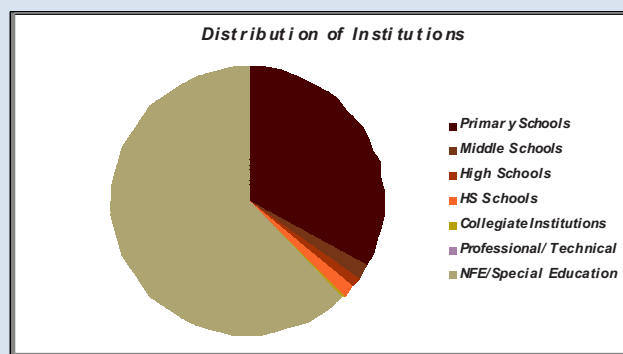
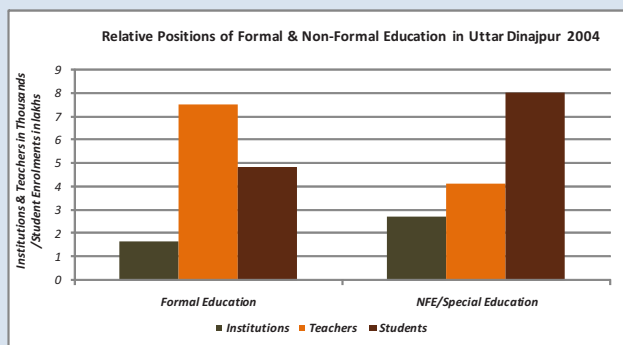
**Table: Educational Infrastructure in Uttar Dinajpur District, 2004**

GENERAL EDUCATIONAL INSTITUTIONS	Institutions	Students Enrolled	Teachers in Position
	2003-04	2003-04	2003-04
1 General Recognised Schools	1661	479990	7348
[i] Recognised Primary Schools	1459	336104	4901
[a] DI [Primary + Junior Basic]	1453	334904	4858
[b] MC/M/Local Bodies	4	593	25
[c] ICSE/CBSE	2	607	18
[ii] Recognised Middle Schools	78	24255	408
[a] DI [Secondary]	63	18942	317
[b] Junior Madrasahs	9	3865	54
[c] ICSE/CBSE	6	1448	37
[iii] Recognised High Schools	63	47990	749
[a] DI [Secondary]	55	45173	662
[b] High Madrasahs	6	2378	55
[c] ICSE/CBSE	-2	439	32
[iv] Recognised Higher Secondary/Multipurpose Schools	61	71641	1290
[a] General Stream [including independent HS Schools]	55	67732	1208
[b] Vocational Stream [including independent HS Schools]	1	1725	31
[c] Senior Madrasahs	5	2184	51
2 General Degree Colleges	6	6154	na
3 Centres of Open Universities	1	121	16
<b>Total</b>	<b>1668</b>	<b>486265</b>	<b>7464</b>
<b>PROFESSIONAL &amp; TECHNICAL EDUCATION INSTITUTIONS</b>	2003-04	2003-04	2003-04
1 Technical Schools	4	494	30
[i] Engineering/Technical Schools	2	238	22
[a] Junior Technical Schools	1	128	13
[b] Industrial Training Institutes [ITIs]	1	110	9
[ii] All PTTI & Nursing Training Institute	2	256	8
[a] Pre-Primary & Primary Teachers' Training Institutes [PTTIs]	2	256	8
2 Technical Colleges	2	203	27
[i] Engineering/Medical/Technical Colleges	1	133	19
[a] Government Polytechnics	1	133	19
[ii] Teachers Training & Nursing Training Colleges	1	70	8
[a] Teachers' Training [B.Ed] Colleges	1	70	8
<b>Total</b>	<b>6</b>	<b>697</b>	<b>57</b>

**Table: Educational Infrastructure in Uttar Dinajpur District, 2004 (Contd.)**

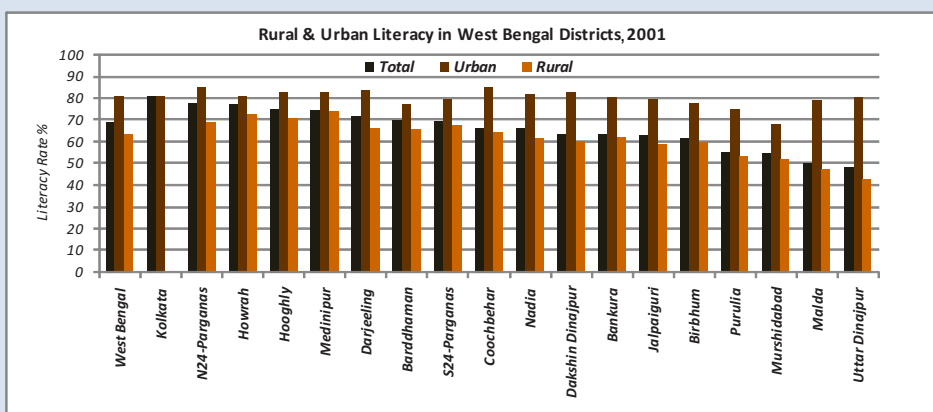
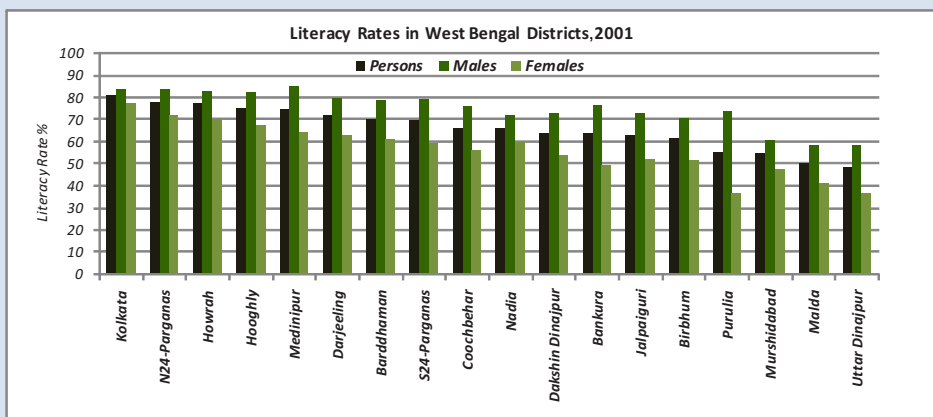
GENERAL EDUCATIONAL INSTITUTIONS	Institutions 2003-04	Students Enrolled 2003-04	Teachers in Position 2003-04
<b>SPECIAL EDUCATION &amp; NON-FORMAL EDUCATIONAL INSTITUTIONS</b>	2002-03	2003-04	2003-04
1 Sishu Siksha Kendras	1065	93075	2474
2 Centres of Rabindra Mukta Vidyalaya	1	427	10
3 Recognised Sanskrit Tols	1	31	1
4 Educational Institutions for Blind & Physically & Mentally Handicapped	1	92	8
5 Non-Formal Education Centres	100	2188	7
6 Anganwadi Education Centres under ICDS	1581	70768	1561
7 Reformatory or Certified Institutions or Welfare Homes under Social Welfare Department for Juveniles or Destitute Children or the Children of red-light areas	1	62	3
<b>Total</b>	<b>2750</b>	<b>803543</b>	<b>4156</b>
<b>All Educational Institutions</b>	<b>4424</b>	<b>1290505</b>	<b>11677</b>

Source: BAE&S, Uttar Dinajpur District Statistical Handbook, 2005



## Literacy Trends in Uttar Dinajpur

In 2001, Uttar Dinajpur emerged as the least literate district in West Bengal in terms of the percentage of total literates, while Dakshin Dinajpur ranked eighth in the state. Uttar Dinajpur was also the only district in West Bengal where the absolute number of illiterates exceeded the number of literates. In terms of male literacy rates too, Uttar Dinajpur occupied the lowest rank among the districts of West Bengal and was just one step ahead of lowest-ranked Purulia in terms of female literacy. However, urban literacy in Uttar Dinajpur at 80.5 percent was almost at par with average urban literacy rate of 81.3 percent for the state, revealing that low levels of literacy in Uttar Dinajpur were mainly the result of low rural literacy rates. Thus in 2001, urban and rural literacy rates in Uttar Dinajpur differed by over 37 percentage-points, this literacy differential was the highest among all West Bengal districts. Educational backwardness was therefore firmly entrenched in rural Uttar Dinajpur, with the largest proportion of illiterates being rural women. With the urban population constituting less than 13 percent of the district population, educational backwardness was primarily a characteristic of rural Uttar Dinajpur.



The vast gap of nearly 38 percentage points that separates urban literacy (80.5%) from rural literacy (42.9%) in Uttar Dinajpur is the widest for any district in West Bengal, also showing that human development potentials differ vastly for the urban and rural populations in Uttar Dinajpur. With nearly one out of every ten school institutions currently being located in urban areas, out of which close to 40 percent are located within the municipal limits of Raiganj town, educational access is made much easier, disproportionately favouring the urban population in the district. While the expansion of primary education in rural areas has evened out some of these educational differentials, facilities for secondary and HS education are still

overwhelmingly clustered in urban areas - particularly within the municipality of Raiganj. With the child population in the 0-6 year age-segment growing at the exponential rate of 1.58 percent p.a in urban Uttar Dinajpur, against 2.89 percent p.a in Uttar Dinajpur district and 3.00 percent p.a. in its rural areas, such differentials between urban and rural literacy and educational access will widen further unless a conscious effort is made to improve the rural access to secondary and HS education by the dispersal of new schools through the rural areas of the district, especially those located in Islampur SD.

Given the high concentration of rural illiteracy in Uttar Dinajpur, it becomes imperative to evaluate its regional dimensions within the district. Several important characteristics about the distribution of literacy between rural and urban areas in the two subdivisions of Uttar Dinajpur are revealed by the associated table and maps, which shows clearly how the CD blocks in Islampur SD lag behind those in Raiganj SD in terms of rural literacy. Thus, besides the sharp inter-district differentiations that place Uttar Dinajpur district as the least literate district in West Bengal, there are sharp intra-district differentiations within the district too. The differences in literacy rates between the two subdivisions extend into the urban areas too, placing Islampur and Dalkola municipalities considerably behind the municipalities in Raiganj SD.

**Table: Literacy Profile of Uttar Dinajpur District, 1991-2001**

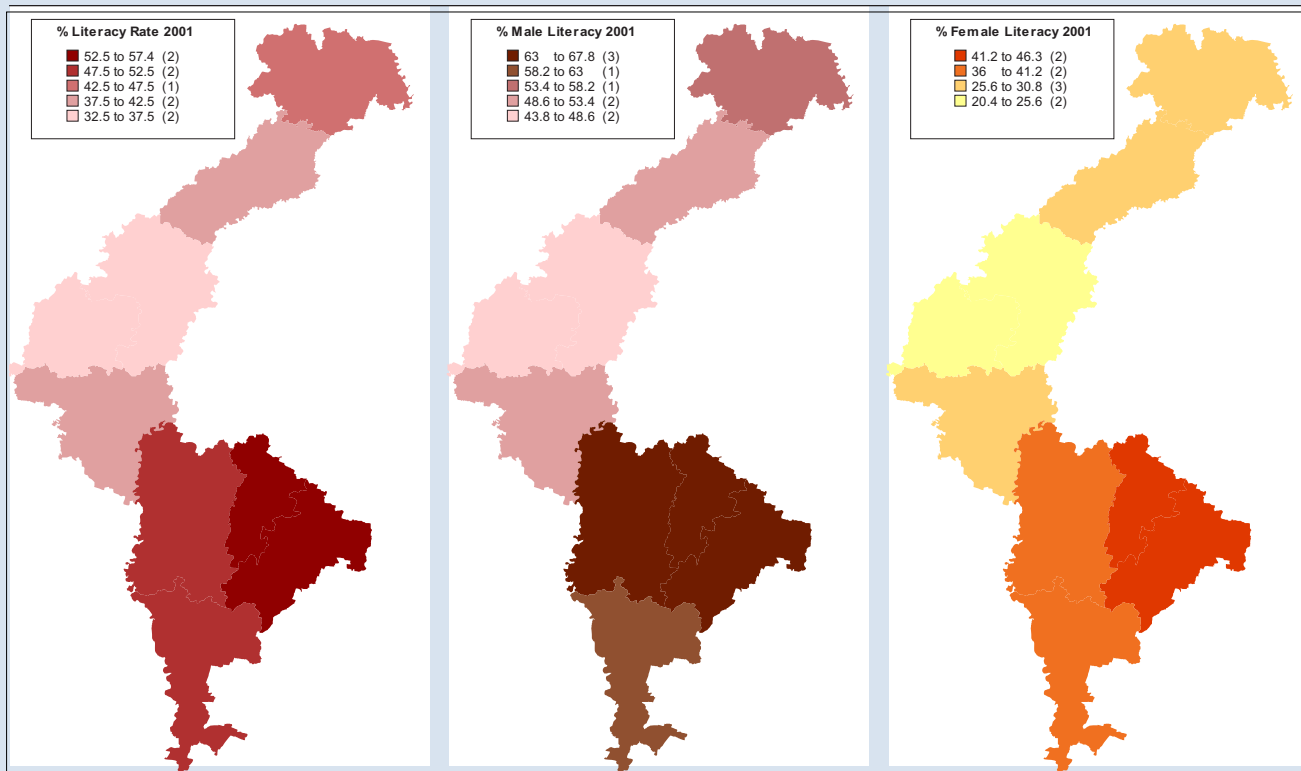
CD Block/Town	2001 Population	2001 Total Literates	2001 % 6y+ Literacy	% Male Literacy	% Female Literacy	Gender Literacy% Differential	1991 Population	1991 Total Literates	1991 % 6y+ Literacy	1991-2001 % Literacy Increase
Chopra	223022	73426	43.3	55.9	29.7	26.2	165720	36222	28.8	14.5
Islampur	241951	70604	38.4	50.3	25.7	24.6	185086	33237	23.2	15.2
Goalpokhar-1	245430	59515	31.6	42.6	19.8	22.9	194058	27267	17.6	14.0
Goalpokhar-2	226472	59481	34.1	44.0	23.6	20.5	168409	24394	18.4	15.7
Karandighi	304986	83824	37.6	48.9	25.5	23.3	219469	37003	23.3	14.3
Raiganj	347108	138810	51.5	63.0	39.1	23.9	268937	72636	35.4	16.1
Hemtabad	118822	54037	56.7	67.1	45.7	21.4	95157	31223	41.7	15.0
Kaliaganj	190019	83259	54.1	66.4	41.1	25.3	150118	46545	38.8	15.3
Itahar	249541	93370	47.4	57.8	36.5	21.4	191122	48114	32.1	15.3
<i>Uttar Dinajpur Rural</i>	<i>2147351</i>	<i>716326</i>	<i>42.9</i>	<i>54.2</i>	<i>30.8</i>	<i>23.4</i>	<i>1638076</i>	<i>356641</i>	<i>27.8</i>	<i>15.1</i>
Islampur M	52738	32443	72.6	78.2	66.0	12.3	45240	25178	65.4	7.1
Dalkhola M	13895	7973	68.9	76.6	60.0	16.6	10652	4962	57.7	11.1
Raiganj M	165212	123687	84.6	88.7	80.0	8.8	151045	104774	78.7	5.9
Nachhratpur-Katabari CT	5113	2733	63.3	70.2	55.5	14.6	-	-	-	-
Kasba CT	9835	7155	82.5	89.2	74.8	14.4	8221	4835	69.6	12.9
Kaliaganj M	47650	33160	79.2	85.5	72.5	13.0	37817	23812	73.6	5.6
<i>Uttar Dinajpur Urban</i>	<i>294443</i>	<i>207151</i>	<i>80.5</i>	<i>85.5</i>	<i>74.8</i>	<i>10.7</i>	<i>252975</i>	<i>163561</i>	<i>74.5</i>	<i>6.0</i>
<b>Uttar Dinajpur DT</b>	<b>2441794</b>	<b>923477</b>	<b>47.9</b>	<b>58.5</b>	<b>36.5</b>	<b>22.0</b>	<b>1891051</b>	<b>520202</b>	<b>34.6</b>	<b>13.3</b>

Source: Census, 2001 & 1991

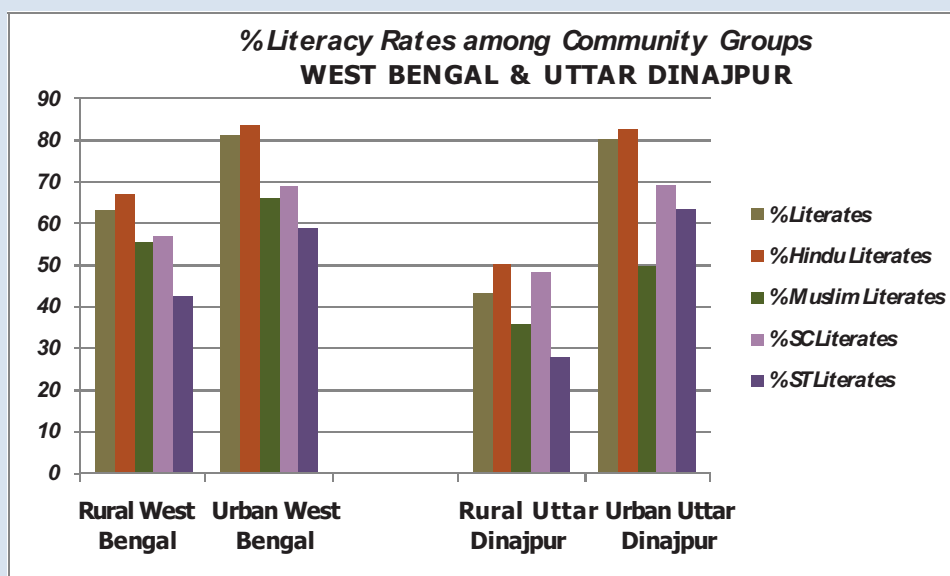
The degree of inter-block variations in literacy in Uttar Dinajpur district is also very high, with a literacy gap of over 25 percentage points separating rural literacy rates in the least literate block i.e. Goalpokhar-1 (31.6%) and most literate block i.e. Hemtabad (56.7%). Chopra is the only block under Islampur SD where rural literacy exceeds the district average. In marked contrast, every block in Raiganj SD including the least literate Itahar has a rural literacy rate well ahead of the district average. Another striking characteristic is observed within gender literacy differentials in the Uttar Dinajpur blocks, which will be analysed more fully in a subsequent chapter. In most blocks, with the exception of Goalpokhar-2 in Islampur SD and Hemtabad in Raiganj SD, gender literacy gaps widen as overall literacy rates increase, indicating that the male sections in rural society in Uttar Dinajpur exercise better leverage over educational opportunities and literacy. The lowest gender gaps are found in both the least literate as well as the most literate blocks of Goalpokhar-2 and Hemtabad. Here in the first case, the levels of female literacy are constricted by widespread male illiteracy, while in the second case, improvements in female literacy are assisted by high prevalence of male literacy.

The striking differences in rural literacy rates which separate the two Uttar Dinajpur subdivisions are readily evident from the regional maps. While rural literacy rates in the blocks under Raiganj SD are well ahead of those in the Islampur SD blocks, the higher literacy rates of Dakshin Dinajpur which were discussed earlier seem to spill over into the contiguous Hemtabad-Kaliaganj region, affecting both male and female literacy achievements. Female literacy levels in Itahar and Raiganj thus visibly lag behind those found in Hemtabad and Kaliaganj blocks. Within Islampur SD, Chopra is the only block to have made some strides towards the achievement of literacy, mainly on the strength of male literacy achievements. Goalpokhar-1 and Goalpokhar-2, on the other hand, are placed considerably behind all other Uttar Dinajpur blocks in this respect of rural literacy.

**MAP : Rural literacy Rates in Uttar Dinajpur, 2001**



All five blocks under Islampur SD were thus among the 10 least literate blocks in West Bengal in 2001, among which Goalpokhar-1, Goalpokhar-2, Karandighi and Islampur blocks in that order stood at the very bottom of the literacy scale in the state. This pooling of illiteracy within Islampur SD also led to the low ranking of Uttar Dinajpur at 494th position out of 595 Indian districts in terms of literacy rates in 2001, despite which its rank had improved considerably in relative terms from the 523rd rank it had occupied in 1991. The corresponding All-India rankings of Uttar Dinajpur in 2001 were in the 519th position in terms of male literacy rates (523rd position in 1991) and in the 443rd position in terms of female literacy rates (496th position in 1991), with higher relative rankings achieved by the district for female literacy primarily because low female literacy is much more widespread across rural India. However, because of its high population, Uttar Dinajpur ranked 235th among 595 Indian districts in terms of the total number of literates. For male and female literates, the relative All-India rankings for the district were 225th and 251st respectively. This was primarily because in four lowest-ranked Islampur blocks, nearly three-fourths of the women are still illiterate. This offers substantial indication that the literacy positioning of Uttar Dinajpur cannot improve significantly unless there is specific targeting of the Islampur SD blocks, with particular emphasis on improving female literacy levels.

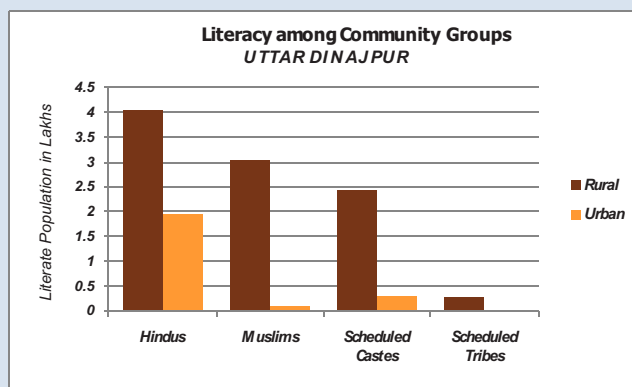
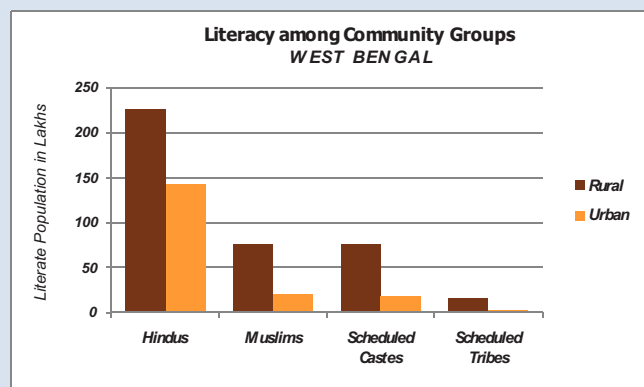
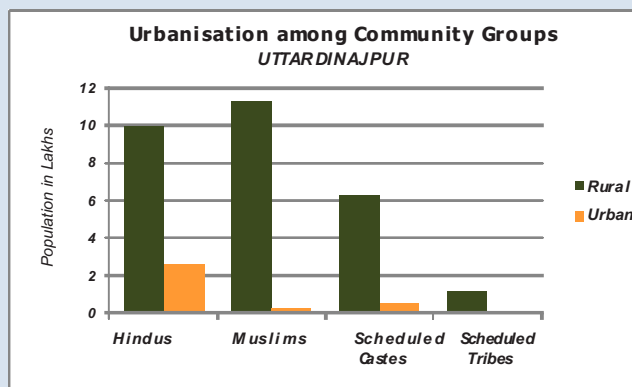
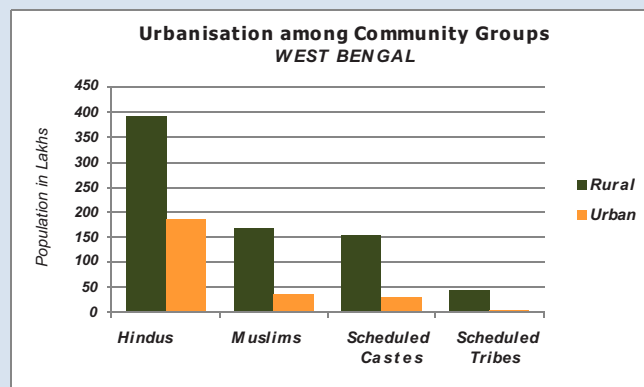


In spite of this grim literacy scenario, there are some positive signs such as the improvement in All-India rankings, which indicate that the literacy profile of the district is changing for the better. Figures for the decennial change in literacy between 1991-2001 show an improvement ranging between 14-16 percent across all Uttar Dinajpur blocks. Significantly the order of increase in block-level literacy rates is substantially higher than the corresponding increases in urban literacy rates, indicating that far more can be achieved by the district by focusing literacy and educational programmes towards rural areas, than by constricting the spread of educational facilities mainly to municipal areas like Raiganj which already offer significantly better educational opportunities compared to the rest of Uttar Dinajpur.

**Table: Urbanisation & Literacy among Community Groups in West Bengal & Uttar Dinajpur, 2001**

	Total Population	Rural Population	Urban Population	% Population in Urban Residence	Total Literates	Rural Literates	Urban Literates	% Literacy Rate	% Rural Literacy	% Urban Literacy
<b>WEST BENGAL</b>										
Hindus	58104835	39406984	18697851	32.2	36747844	22576830	14171014	72.4	66.8	83.7
Muslims	20240543	16845034	3395509	16.8	9456400	7535908	1920492	57.5	55.6	66.2
Scheduled Castes	18452555	15524925	2927630	15.9	9251190	7475290	1775900	59.0	57.1	69.0
Scheduled Tribes	4406794	4136366	270428	6.1	1592603	1454890	137713	43.4	42.4	58.7
All Communities	80176197	57748946	22427251	28.0	47196401	30840027	16356374	68.6	63.4	81.2
<b>UTTAR DINAJPUR</b>										
Hindus	1263001	994796	268205	21.2	601224	405227	195997	57.7	50.3	83.0
Muslims	1156503	1132025	24478	2.1	313331	303544	9787	36.0	35.7	50.0
Scheduled Castes	676582	623649	52933	7.8	273429	241990	31439	50.1	48.3	69.3
Scheduled Tribes	124865	122110	2755	2.2	28160	26659	1501	28.7	27.8	63.7
All Communities	2441794	2147351	294443	12.1	923477	716326	207151	47.9	42.9	80.5

Source: Census, 2001





### Literacy among Weaker Social Sections

Uttar Dinajpur has a sizeable concentration of Muslims, SCs and STs within its population. In 2001, the proportion of Muslims in the district population amounted to 47.4 percent and was even higher in the rural Uttar Dinajpur areas at 52.7 percent. Similarly, the concentration of SC groups amounted to 27.7 percent in the district and 29 percent in rural areas, and correspondingly for ST groups to 5.1 percent in the district and 5.69 percent in rural areas. Thus in cumulative terms, 80 percent of the district population and 87 percent of its rural population belonged to these weaker sections in 2001. In West Bengal as a whole as well as in Uttar Dinajpur, literacy rates among these social segments lag considerably compared to the literacy achievements of other forward communities. This is borne out by the accompanying bar chart, which also shows that rural literacy rates among these communities in Uttar Dinajpur lag considerably behind the rural literacy levels achieved by them for West Bengal as a whole. Under the current educational scenarios of the district, where rural residents have strikingly lower access to education, the brunt of educational inequities is borne by the Muslim, SC and ST communities in Uttar Dinajpur.

The prevailing relation between urbanisation rates and literacy levels in West Bengal and Uttar Dinajpur is explored more closely above. For West Bengal as a whole, the Hindu population amounted to around 5.81 crore, against a total Muslim population of 2.02 crore in 2001. However, with a larger proportion among the Hindu population segment being in urban residence, there was marked variation in urbanisation rates between the Hindus (32.2%) and Muslims (16.8%). In comparison, Uttar Dinajpur had a Hindu population of 12 lakh and a nearly equal Muslim population of 11.5 lakh in 2001. However, urbanisation rates among the Muslims in Uttar Dinajpur differed much more significantly from those among the Hindus, with only 2.1 percent of the Muslims residing in urban areas against 21 percent among the Hindus. A wide gap prevailed between rural and urban literacy rates for both communities, both in the state and the district. Nevertheless, the differential between aggregate literacy rates for rural & urban Hindus and rural & urban Muslims in Uttar Dinajpur amounted to 21 percentage points, much higher than the state differential of 15 percent. Urbanisation rates among the SC and ST groups were also considerably lower in Uttar Dinajpur when compared to West Bengal. The Muslims, SCs and STs thus comprised an overwhelmingly larger proportion of the rural population in Uttar Dinajpur than they did in West Bengal.

Although separate figures are not available at sub-district level for literacy among the Muslim population in Uttar Dinajpur, more detailed examination of such social inequalities can be made at sub-district level for literacy among SCs and STs. For Uttar Dinajpur as a whole, SC literacy rates are higher than the average literacy rates among the district population. This is primarily because of high literacy rates among the SC groups residing in the urban areas of the district, which partially offset low SC literacy in rural areas. Urbanisation levels are far lower among ST groups in the district. Hence the ST groups lag far behind the SC groups in Uttar Dinajpur in terms of their overall achievement of literacy. With Muslims comprising over 63 percent of the rural population in Islampur SD against 18 percent in Raiganj SD, existing literacy differentials between the two Uttar Dinajpur subdivisions primarily reflect the very low rates of literacy prevailing among the Muslim community in the Islampur SD blocks.

**Table: Urban & Rural Literacy Patterns among SC & ST Community Groups in Uttar Dinajpur, 2001**

CD Block/Town	Total Population	Total SC Population	Total ST Population	Non-SC/ST Literates	Total SC Literates	Total ST Literates	% 6y+ Literacy	% SC 6y+ Literacy	% ST 6y+ Literacy
Chopra	223022	41315	15825	52466	17459	3501	43.3	52.7	28.9
Islampur	241951	42589	5833	50572	18777	1255	38.4	54.8	27.4
Goalpokhar-1	245430	35137	9273	43948	14249	1318	31.6	50.7	17.9
Goalpokhar-2	226472	52449	14086	37889	18706	2886	34.1	44.8	26.1
Karandighi	304986	94610	23335	46911	32750	4163	37.6	43.7	23.0
Raiganj	347108	134912	20986	79615	53402	5793	51.5	49.2	34.8
Hemtabad	118822	41056	4523	35920	17093	1024	56.7	51.4	28.7
Kaliaganj	190019	114922	8656	35289	45247	2723	54.1	48.6	38.7
Itahar	249541	66659	19593	65067	24307	3996	47.4	45.2	26.1
<i>Uttar Dinajpur Rural</i>	<i>2147351</i>	<i>623649</i>	<i>122110</i>	<i>447677</i>	<i>241990</i>	<i>26659</i>	<i>42.9</i>	<i>48.3</i>	<i>27.8</i>
Islampur M	52738	9318	613	26183	5970	290	72.6	75.8	56.6
Dalkhola M	13895	3192	63	6458	1479	36	68.9	56.9	66.7
Raiganj M	165212	25567	1509	106449	16388	850	84.6	73.5	65.4
Nachhratpur-Katabari CT	5113	843	7	2343	387	3	63.3	53.2	60.0
Kasba CT	9835	3209	156	5212	1819	124	82.5	66.2	93.9
Kaliaganj M	47650	10804	407	27566	5396	198	79.2	59.3	55.9
<i>Uttar Dinajpur Urban</i>	<i>294443</i>	<i>52933</i>	<i>2755</i>	<i>174211</i>	<i>31439</i>	<i>1501</i>	<i>80.5</i>	<i>69.3</i>	<i>63.7</i>
<b>Uttar Dinajpur DT</b>	<b>2441794</b>	<b>676582</b>	<b>124865</b>	<b>621888</b>	<b>273429</b>	<b>28160</b>	<b>47.9</b>	<b>50.1</b>	<b>28.7</b>

Source: Census, 2001

When compared to the state of West Bengal as a whole, urbanisation levels in Uttar Dinajpur are thus much lower among all underprivileged community groups. Clearly, the urban population segments in the district who are privileged by better educational access are overwhelmingly composed of Hindu upper castes and the other forward communities. The slow proliferation of education into the rural areas of the district and the prevalence of high illiteracy in the Islampur SD blocks both seem to be deeply rooted in this highly unequal rural-urban divide.

### Structure of Public Education

The existing institutional structure for public education in Uttar Dinajpur district is briefly summarised in the table below, accounting for the number of educational institutions, the number of teachers in position and the number of students enrolled at different educational stages. As the table clearly indicates, the expansion of the public education system at the primary level has not been matched by parallel expansion at the higher stages, creating a huge bottleneck in the intake capacity of the system at its upper levels. Almost 88 percent of the total number of educational institutions, 67 percent of the total teachers employed and 70 percent of the total students enrolled represent the primary stage of education. The remaining stages of school education from middle school to HS level cumulatively account for 12 percent of the existing educational institutions, 33 percent of the teachers and 30 percent of the students enrolled. At the tertiary stage, the scope for higher education is even more constricted, with only 6 colleges in existence that employ around 100 teachers and serve just over 6 thousand students. The scope for acquiring professional

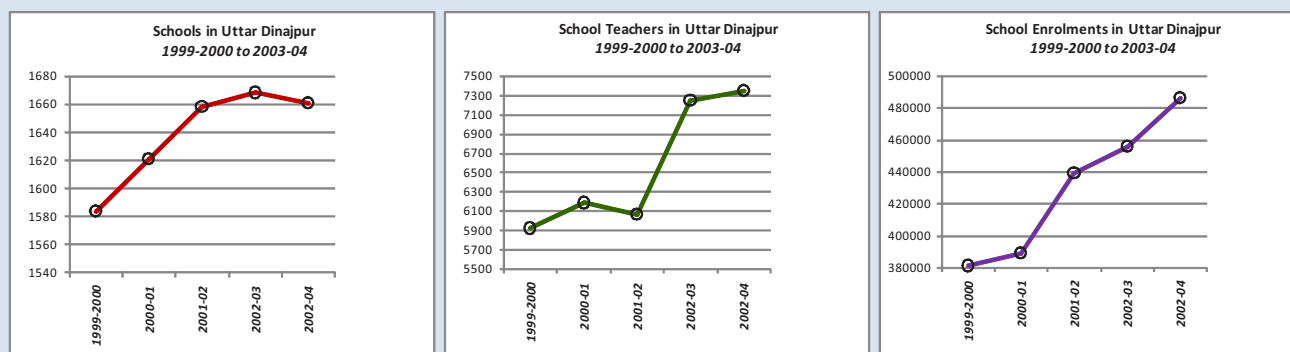
or technical education is limited to 6 institutions served by 57 teachers and catering to the educational needs of less than 700 students. Thus public education in Uttar Dinajpur has a highly pyramidal structure, which is also more or less true for West Bengal and for India as a whole. However, given the large population of the district and its rapid rate of growth, constriction occurs at all levels within the formal education system in Uttar Dinajpur and is partially responsible for low levels of educational achievement in the district.

Short-term trends in the institutional framework and intake of the public education system in Uttar Dinajpur since 1999-2000 show that while new educational institutions are being established almost every year, the trend is not as consistent as would be required. Similarly, while there is overall increase in the number of teachers in the district, there have been dips in certain years for possible reasons such as vacancies and staff retirements. Meanwhile, student enrolments have maintained relatively steady growth, showing that the demand for education in the district is steadily increasing, despite the inadequacies in the public education system. Given the small institutional base of the educational system and its highly pyramidal structure, there is an overwhelmingly large dependence on the nonformal educational system, with 1.65 NFE enrolments for every student enrolled within the formal system. As this is a stop-gap solution at best for the educational problems of Uttar Dinajpur, urgent attention needs to be given to the phased expansion of the public education system if the district is to break out of the vicious circle of inadequate social infrastructure, low literacy and low educational achievement.

**Table: Institutional Structure of Education in Uttar Dinajpur, 2002-2003**

	Educational Institutions	Teachers in position	Student Enrolments
Primary Schools	1459	4901	336104
Middle Schools	78	408	24255
High Schools	63	749	47990
HS Schools	61	1290	71641
General Colleges	6	100	6154
Professional/Technical	6	57	697
<i>Formal Education</i>	<i>1673</i>	<i>7505</i>	<i>486841</i>
<i>Special &amp; NFE</i>	<i>2750</i>	<i>4156</i>	<i>803543</i>

Source: BAE&S, Uttar Dinajpur District Statistical Handbook, 2005



### Regional Characteristics of Education

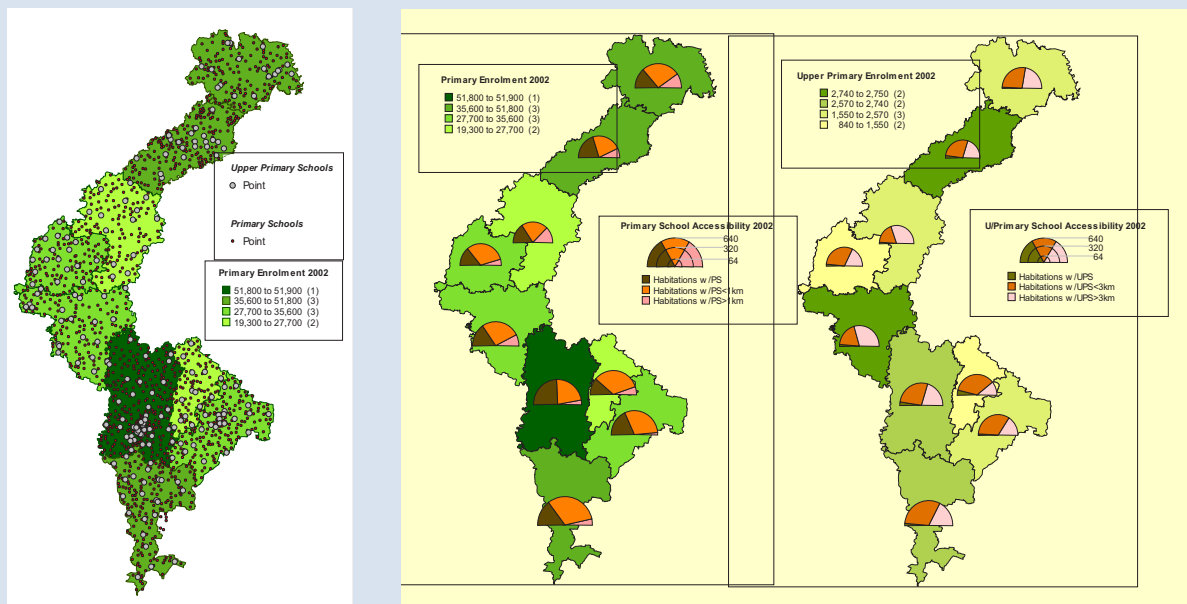
In view of the large presence of socially weaker groups such as the Muslim, SC and ST communities in Uttar Dinajpur, educational deprivation in rural areas amounts to the deprivation of these social groups. A

broad idea of existing regional deficiencies within the public education system can be obtained through detailed examination of the block-level data for Uttar Dinajpur district from the Seventh All-India School Education Survey [AISES] conducted in 2002. This allows assessment to be made of the accessibility of school institutions at different educational stages, the infrastructure provided at different schools, the current student loads borne by the public educational system in terms of enrolment levels and pupil-teacher ratios [PTRs] and several other efficiency and equity attributes.

As indicated by the pyramidal structure of the education system in the district, the institutional base of the system at primary education is much wider than at its upper levels. There has been a commendable proliferation of primary schools across the rural areas of the district, to which there has been a strong response in terms of rising primary enrolments in Uttar Dinajpur. However, without commensurate expansion in the school system at the upper primary and secondary levels, pronounced limitation of educational opportunities is bound to occur past the primary level particularly in rural areas, because of greater difficulty faced by rural students in gaining access to schools within reasonable reach from their habitations. The regional position of Uttar Dinajpur in this respect is examined in the associated maps. All AISES data in the maps pertain to the survey year 2002.

The distribution of primary schools across Uttar Dinajpur is seen to be relatively even for most blocks. A few areas where the distribution of schools becomes sparse are visibly present in Goalpokhar-1 and Hemtabad. Primary enrolments were also consequently lower in these two blocks in the range 19-27 thousand. While in Hemtabad, this can be ascribed to the small size of the block and the limited block population, low primary enrolment in Goalpokhar-1 which had a large block population exceeding 2.45 lakh appears to be the direct consequence of the limited access of children to schools. In contrast, in Raiganj block which had a rural population exceeding 3.47 lakh, there was noticeable clustering of primary schools relative to the other blocks, even though these are distributed fairly evenly through the rural areas within the block. Raiganj accordingly records the highest primary enrolments in the district, exceeding 51 thousand. In relative terms, therefore, primary enrolments in Raiganj block are more than twice as high as enrolments in Goalpokhar-1 block - also the least literate block in Uttar Dinajpur district, although the difference in their block populations is not quite so large.

## MAP: School Accessibility in Uttar Dinajpur



Of the 3.14 lakh children enrolled in primary schools in Uttar Dinajpur in 2002, 2.96 lakh (96%) belonged to rural areas. They attended a total of 1313 rural primary schools, 255 (19%) of which were located within Raiganj block. Additionally, within the municipal limits of Raiganj, there were 43 primary schools amounting to 38 percent of the urban primary schools in the district, which enrolled 4687 urban children. Taken together, rural and urban Raiganj accounted for 18 percent of the total primary enrolment and 20 percent of the primary schools established in the district. With 737 primary schools serving 1.49 lakh children, Raiganj SD thus had 52 percent of the primary schools and accounted for 48 percent of the total primary enrolment in Uttar Dinajpur. In contrast, 690 primary schools catered to the educational needs of 1.65 lakh children in Islampur SD. Thus poorer educational achievements in the Islampur SD blocks clearly reflected the relative lack of school institutions, rather than the lack of effective response.

Despite such shortcomings, the base for primary education in Uttar Dinajpur is seen to be well dispersed and strong and is able to draw forward sizeable enrolments even in the low literacy blocks. Nevertheless, the key to the continuance of education for the rural learners who had been enrolled at the primary stage was held by the upper primary school system in the district. In the institutional map, the distribution of upper primary schools (represented by the larger white dot-markers) is seen to be remarkably sparse relative to the fairly even distribution of primary institutions, and also shows marked clustering in the vicinity of urban municipalities such as Raiganj, Kaliaganj and Islampur. In the non-urbanised blocks of Chopra, Hemtabad and Itahar and in the relatively less-urbanised Karandighi block, there was better dispersal of upper primary schools, even though the number of such institutions was inadequate, when compared to the large institutional base of primary schools. Consequently, upper primary enrolments fell drastically across the district, with 0.19 lakh upper primary students enrolled in all, equivalent to barely 6 percent of the total primary enrolments. While Karandighi and Islampur blocks recorded the highest upper primary enrolments, the other Uttar Dinajpur blocks together accounted for barely 12 thousand upper primary students. In Raiganj, Kaliaganj and Islampur, upper primary students were drawn mainly from the vicinity of the urban areas, while the rest of the rural areas within them were highly underserved. Peak upper primary enrolments in the Uttar Dinajpur blocks decreased to approximately 2700 students, from the peak primary enrolment exceeding 51,000 students. Ostensibly, in the statistics therefore, there was huge dropout of rural students in Uttar Dinajpur after the primary school stage, justifying such a mismatch between the primary and upper primary educational systems. More authentically however, such rural 'dropouts' were involuntary in nature, and were enforced by the existing inadequacies of the public education system. Because of the overall dearth of suitably located upper primary institutions, only one out of every five rural students who had enrolled at the primary stage was able to advance beyond it to enter the upper primary school system. Furthermore, this pattern was almost uniformly present across all blocks in Uttar Dinajpur district.

Accessibility of rural schools imposed further problems. At the primary stage, most rural students were able to reach and attend a primary school located within a radius of 1km from their point of habitation. Accessibility was best in Kaliaganj and relatively better through the Raiganj SD blocks, compared to the Islampur SD blocks where a relatively larger proportion of rural students had to reach primary schools over distances exceeding 1km. Since Goalpokhar-1 block held the largest proportion of such students, the difficulties of school access combined with the overall dearth of institutions would account for the low primary enrolments in the block. At the upper primary stage, the problems of school access multiplied throughout the district, with most rural students having to reach their schools commuting over distances of 3km or more. In Karandighi and Golpokhar-1, this problem was much more acute since a majority of upper primary students had to commute over distances greater than 3km.

### Accessibility of Rural Schools

While the spread of educational institutions in Uttar Dinajpur, particularly at the primary level, has been commendable, two additional enabling conditions play a critical role in determining the achievement of rural education. These are firstly, the accessibility of rural schools from the places of rural habitation, and secondly, the provision of adequate school infrastructure at these schools. As seen above, although the number of primary institutions is still inadequate to meet the educational needs of all potential learners, school accessibility is less of a problem at the primary stage since the spread of primary institutions within a radius of 1 km from the rural habitations is fairly uniform and even for most Uttar Dinajpur blocks. However at the upper primary stage, school accessibility becomes a major problem, developing particularly acute dimensions in some of the least literate Islampur SD blocks.

According to Census 2001 figures, 71 percent of the mouza villages in Uttar Dinajpur district provided access to at least one primary school. While below the state average of 74 percent for West Bengal as a whole, this represented a reasonable level of achievement for Uttar Dinajpur, which is otherwise a low literacy district. The problem becomes much more critical at the upper primary stage, where only 9 percent of the Uttar Dinajpur villages had access to an upper primary school in their close vicinity, against an average of 15 percent for the state. Since the inadequate provision of upper primary education is still a major area of concern in West Bengal, the state norm does not represent an ideal situation and is far short of the achievement of states like Kerala in this respect. Nevertheless, the fact that Uttar Dinajpur is still well below this state norm has substantial bearing on its poor achievements in literacy and education.

At the sub-district level, the current accessibility problems faced at different educational stages within the district of Uttar Dinajpur become clear during proximity analysis of Census 2001 data. It is easily apparent therefore, that the pyramidal structure of the educational system in the district places increasing institutional impediments on the path of progress by rural learners as they transit from one educational stage to the other. However, the most critical of these institutional barriers is encountered by rural learners as they prepare to enter the upper primary stage. The absolute dearth of upper primary schools in the district is enough to stop most of the rural students who had previously enrolled under the primary system in their tracks. Thus for most rural students in Uttar Dinajpur, the possibility of progressing through the public education system stage-after-stage becomes an increasingly distant vision. It is also pertinent to observe that urban learners face none of these impediments, since the institutions they attend are all within easy reach of the places where they reside.

Block-wise positions in the proximity table are captured vividly in the associated barcharts. While a sharp drop occurs in the number of educational institutions within the proximity range of 1km between the primary and middle school stage in every Uttar Dinajpur block, the institutional frameworks and proximities at subsequent educational stages maintain closer compatibility with the framework of middle school institutions. Clearly, expansion of primary education through Uttar Dinajpur district has not been accompanied by gradual upgradation of the institutional frameworks at later educational stages, producing the bottleneck that halts the transition of most primary learners. Since this position is repeatedly echoed in all blocks in Uttar Dinajpur, the gravity of this problem becomes increasingly evident. Goalpokhar-1, Goalpokhar-2 and Karandighi blocks are obviously at a special detriment in this respect at all educational stages, explaining the low educational achievements by these blocks.

**Table: Accessibility of Education from Village Settlements in Uttar Dinajpur District in 2001**  
*Proximity Analysis*

CD Block	Inhabited Villages	Total Population	% 6y+ Literacy	Primary % 6y+ Illiterates	Primary School within 1km	Middle* School within 1km	High School within 1km	HS School within 1km	College within 1km
Chopra	115	223022	43.3	56.7	85	9	8	4	-
Islampur	101	241951	38.4	61.6	82	19	8	3	1
Goalpokhar-1	145	245430	31.6	68.4	91	11	4	1	-
Goalpokhar-2	169	226472	34.1	65.9	96	11	6	2	-
Karandighi	211	304986	37.6	64.0	130	12	6	2	-
Raiganj	220	347108	51.5	49.7	194	23	18	3	1
Hemtabad	114	118822	56.7	43.3	78	14	8	3	-
Kaliaganj	191	190019	54.1	45.9	139	16	10	3	-
Itahar	211	249541	47.4	52.6	149	20	11	5	-
U Dinajpur Rural	1477	2147351	42.9	57.1	1044	135	79	26	2
CD Block	Primary School within 5km	Middle* School within 5km	College within 5km	Primary School within 5-10 km	Middle* School within 5-10 km	College within 5-10 km	Primary School beyond 10km	Middle* School beyond 10km	College beyond 10km
Chopra	20	22	-	10	59	4	-	25	111
Islampur	17	44	6	2	34	18	-	4	76
Goalpokhar-1	41	38	-	13	58	1	-	38	144
Goalpokhar-2	62	95	1	8	48	2	3	15	166
Karandighi	50	93	2	30	83	33	1	23	176
Raiganj	15	119	11	11	75	77	-	3	131
Hemtabad	19	51	1	15	23	11	2	26	102
Kaliaganj	45	132	13	5	40	68	2	3	110
Itahar	60	149	-	1	38	8	1	4	203
U Dinajpur Rural	329	743	34	95	458	222	9	141	1219

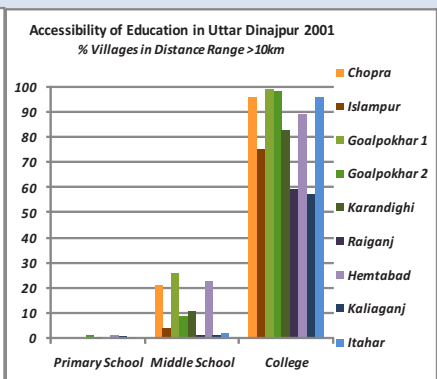
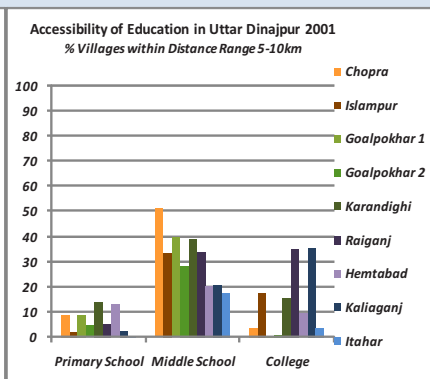
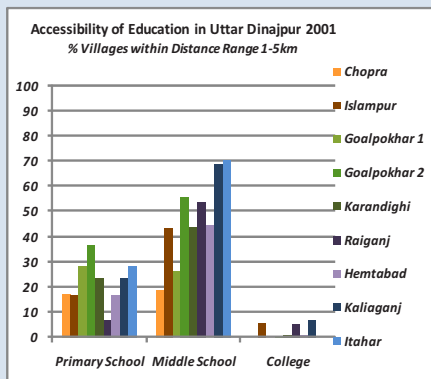
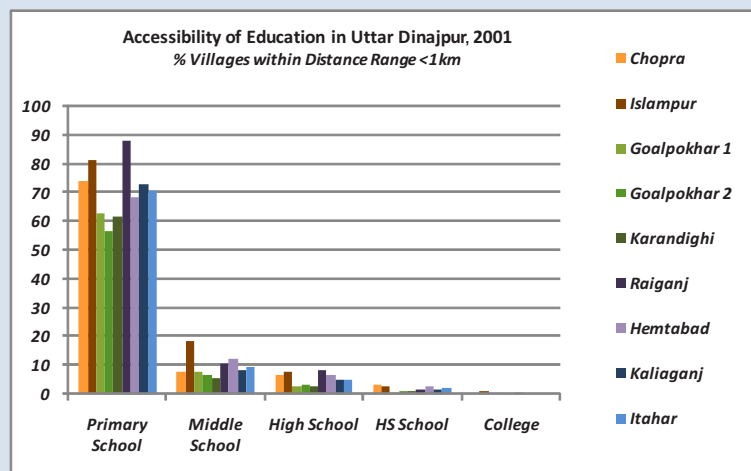
Source: Census, 2001

*Note: Some differences characterise primary education in West Bengal, where primary schools generally cover the Class 1-4 stage instead of the Class 1-5 stage under the standard definition. Accordingly, middle schools generally cover the Class 5-8 stage instead of the Class 6-8 stage usually covered by upper primary schools.*

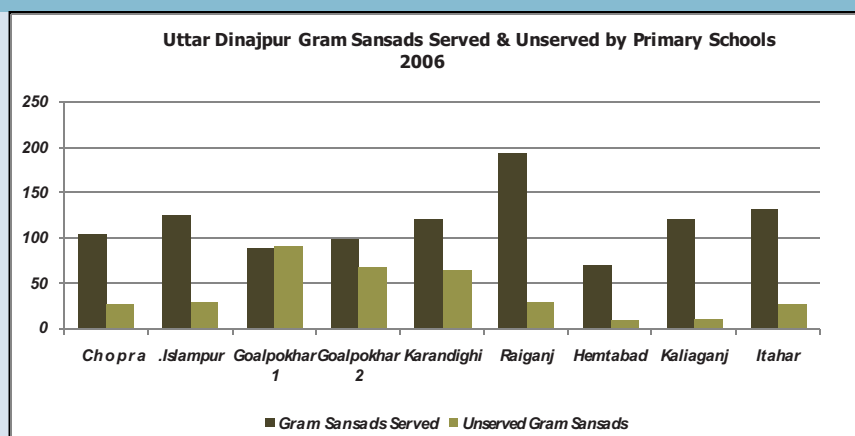
# Human Development Report 2010

Although the majority of villages in all Uttar Dinajpur blocks now have primary schools within a radial distance of 1km, Goalpokhar-2 still has the largest number of villages where primary schools are located in the distance range of 1-5km, followed closely by Goalpokhar-2 and Itahar. Karandighi and Kaliaganj are placed in similar positions because fewer schools exist along their border areas. Because of the concentration of primary schools in Raiganj block, the villages there are best placed in terms of their proximity to primary schools.

As pointed out previously, middle school education is an area of urgent concern in Uttar Dinajpur. The median distance range covered while attending middle schools is 1-5km in a majority of the Uttar Dinajpur villages, with the block-wise position in this respect being relatively similar for most Uttar Dinajpur blocks except Chopra and Goalpokhar-1. However, a fairly large number of villages in all blocks lie in the distance range 5-10km from middle schools, most of them being in Islampur SD. Chopra, Goalpokhar-1 and Hemtabad also have the largest number of isolated villages where access to middle schools involve commuting distances greater than 10km. Thus the table ascertains that provision of schools within the village proximity for the district is considerably poor for both primary and upper primary levels, the situation being more acute for middle level schools. There is however, high concentration of primary schools at Raiganj subdivision and upper primary schools in both Islampur and Raiganj blocks. Now it will be consequential to see the progress of accessibility over the period of time. The distribution of schools within the census villages is taken into account as a standard of measure irrespective of category of schools in this respect. College education remains a far cry for most rural residents in Uttar Dinajpur. Even within the three blocks which have colleges located in their associated municipal towns, i.e. Islampur, Raiganj and Kaliaganj, an overwhelmingly large number of villages are located at distances exceeding 10km from the college institutions.







Thus it becomes evident that the only way to raise literacy and educational achievements in Uttar Dinajpur is by substantially upgrading the institutional facilities for school education, particularly at its middle and upper stages. The public perception in the district is that recently launched educational programmes of the Government, e.g. DPEP and SSM, are essentially focused towards increasing enrolments, and thus prove inadequate when tackling the glaring institutional deficiencies faced by Uttar Dinajpur. The report for the Sarva Siksha Mission in Uttar Dinajpur for 2006-2007 accordingly shows that 362 out of 1422 Gram Sansads in rural Uttar Dinajpur still have an unmet demand for school institutions. While Gram Sansads in Raiganj block are best served in this respect, and the others in Raiganj SD are better served than those in Islampur SD, half the Gram Sansads in Goalpokhar-1 blocks and between 60-70 percent of those in Goalpokhar-2 and Karandighi still do not have primary schools. Disparities of this high order within Uttar Dinajpur have a telling effect on literacy and educational achievements.

### State of Educational Infrastructure

Besides, the public investment that has to be made for the establishment of schools, a considerable amount of investment is also required for major development expenses such as the construction of proper buildings and the maintenance and upkeep of classrooms and other essential facilities. Although the public education system in Uttar Dinajpur till faces serious institutional shortages, substantial expansion has occurred in rural enrolments, particularly at primary schools. It therefore becomes necessary to examine the state of the educational infrastructure in the district in terms of the facilities that are being provided currently at rural schools, the most basic attribute of which is the structural quality of school buildings. This evaluation can be made from block-level data for Uttar Dinajpur, drawn from the 7th AISES.

**Table: School Infrastructure in Uttar Dinajpur District by Building-Types, 2002**

CD Block.Town	Total Primary Schools					Total U/Pri- mary Schools	Total High Schools									
	Pucca	Semi-Pucca	Kuch-cha	Under Open Sky	Pucca		Semi Pucca	Kuch-cha	Under open Sky	Pucca	Semi Pucca					
Chopra	136	41	91	4	-	6	4	2	-	-	7	5	2	3	3	-
Islampur	151	127	19	3	2	10	6	2	2	-	3	2	1	2	2	-
Goalpokhar-1	112	104	7	1	-	9	5	-	3	1	3	3	-	3	2	1
Goalpokhar-2	120	100	16	-	4	6	5	-	1	-	7	6	1	5	5	-
Karandighi	136	74	56	6	-	8	-	7	1	-	8	7	1	3	3	-
Raiganj	244	154	83	4	3	7	1	2	4	-	12	8	4	5	5	-
Hemtabad	85	18	43	-	24	3	-	2	1	-	8	3	5	3	2	1

**Table: School Infrastructure in Uttar Dinajpur District by Building-Types, 2002 (Contd.)**

CD Block.Town	Total Primary Schools	Pucca	Semi-Pucca	Kuchcha	Under Open Sky	Total U/Primary Schools	Pucca	Semi Pucca	Kuchcha	Under open Sky	Total High Schools	Pucca	Semi-Pucca	Total HS Schools	Pucca	Semi Pucca
Kaliaganj	162	151	9	1	1	5	4	1	-	-	8	5	3	5	3	2
Itahar	167	74	76	8	9	9	3	4	2	-	9	3	6	4	3	1
U Dinajpur Rural	1313	843	400	27	43	63	28	20	14	1	65	42	23	33	28	5
Islampur M	25	17	8	-	-	2	-	1	-	1	-	-	-	5	4	1
Dalkhola M	10	10		-	-	1	-	1	-	-	2	2	-	1	1	-
Raiganj M	43	21	20	1	1	4	3	1	-	-	2	2	-	7	7	-
Nachhratpur-																
Katabari CT	5		5	-	-	1	-	-	1	-	-	-	-	-		-
Kasba CT	6	2	4	-	-	-	-	-	-	-	2	1	1	2	2	-
Kaliaganj M	25	23	2	-	-	-	-	-	-	-	-	-	-	5	4	1
U Dinajpur Urban	114	73	39	1	1	8	3	3	1	1	6	5	1	20	18	2
<b>U Dinajpur DT</b>	<b>1427</b>	<b>916</b>	<b>439</b>	<b>28</b>	<b>44</b>	<b>71</b>	<b>31</b>	<b>23</b>	<b>15</b>	<b>2</b>	<b>71</b>	<b>47</b>	<b>24</b>	<b>53</b>	<b>46</b>	<b>7</b>

Source: 7th All India School Education Survey, 2002

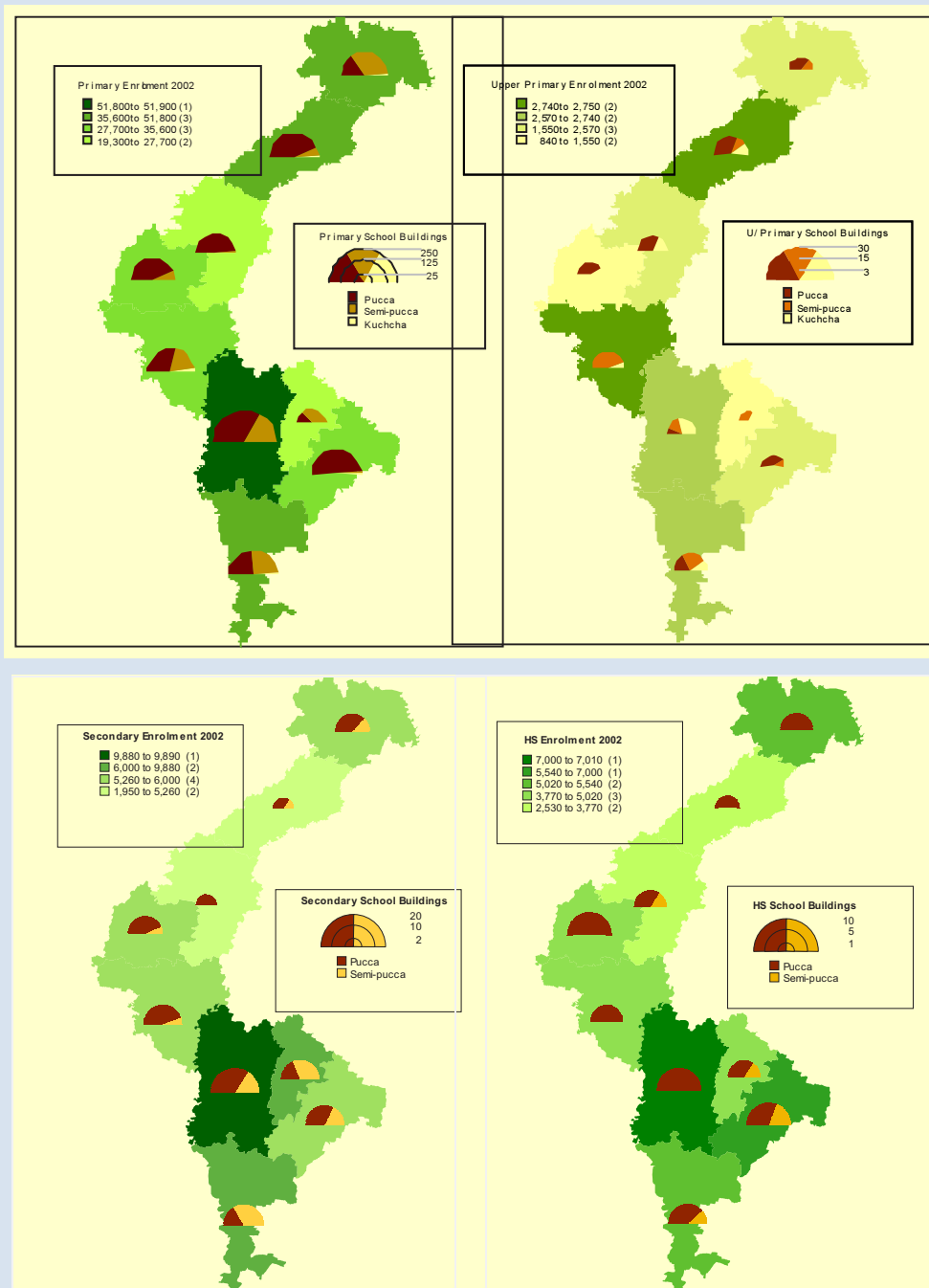
By the quality of their school buildings, the existing schools in Uttar Dinajpur district can be grouped into those housed in pucca or permanent buildings, those housed in semi-pucca buildings with brick-built walls and corrugated iron [CI] or asbestos roofs, and those still housed in kuchcha or makeshift accommodation built with non-durable materials. Since the ultimate policy target would be to endow all rural schools with adequate and permanent school infrastructure, positive association would be expected between the level of student enrolments and the quality of school buildings. The current position of rural schools in Uttar Dinajpur in this respect at successive stages of school education is evaluated for each block through the associated regional maps.

In terms of the building infrastructure at schools, the Uttar Dinajpur blocks present vastly differing profiles. At the primary stage, Raiganj block possesses the largest number of 244 rural schools (indicated by pie-size) but also has the second-highest number of schools housed in semi-pucca buildings. In contrast, in Kaliaganj which has the third-highest number of 162 primary schools, nearly all institutions have pucca buildings, while in Itahar with 167 rural primary schools, a much larger number are still housed in semi-pucca buildings. Among the blocks under Islampur SD, Karandighi and Chopra have exactly the same number of rural primary schools. However, a much larger proportion of those located in Chopra are still housed in semi-pucca accommodation. Islampur block has the fourth-highest number of 151 rural primary schools in the district and therefore the largest number of rural primary schools in the subdivision, nearly all of which have been provided with permanent buildings. With a much smaller number of primary schools, Goalpokhar-1 and Goalpokhar-2, have also accommodated the vast majority of them in pucca buildings.

Relating these patterns to the block-wise student enrolments, a new picture of primary education in Uttar Dinajpur begins to emerge. On the principle of regional gravity, the district headquarters block of Raiganj and the subdivisional headquarters block of Islampur have the largest number of rural primary schools in their respective subdivisions. Facing expanding primary enrolments, Islampur has invested more on providing its own rural schools with pucca buildings. In the process, less investment has been made in improving the building infrastructure of primary schools in the other Islampur SD blocks. Karandighi and Chopra in particular have managed to increase their student intake capacities in primary education by accommodating

more rural schools in low-cost semi-pucca structures. Since the same has not happened in Goalpokhar-1 and Goalpokhar-2, primary enrolments there continue to languish. Under Raiganj SD, Itahar, Raiganj and Hemtabad have had to cope with fast-growing demands for primary education because of population growth and migration pressure. The way out for them has also been to lower the infrastructural costs of educational expansion by accommodating more of their rural schools in semi-pucca buildings. Kaliaganj, on the other hand, already had a large number of primary schools relative to the size of its block population and has not faced the same enrolment pressures.

### MAP: School Infrastructure & Enrolments at Different Educational Stages in Uttar Dinajpur



At the upper primary stage, where the total number of institutions serving the district is small, the most striking characteristic in the relevant regional map is the substantial proportionate presence of kuchcha school buildings in blocks like Islampur, Goalpokhar-1, Raiganj and Itahar, which also indicates that the principal constraint faced while expanding upper primary education in Uttar Dinajpur is the high capital cost associated with the provision of school buildings. Islampur and Karandighi blocks have the largest upper primary enrolments in the district, which they manage to accommodate by running more upper primary schools in semi-pucca and kuchcha buildings. Elsewhere through the district, where this cost-economising strategy has not been adopted, access to upper primary education continues to be highly constricted. Obviously, since such a strategy cannot be looked as a longterm solution, financial means will have to be found in the near future for upgrading the building infrastructure at these educational institutions. So the opening of new upper primary schools in rural areas without adequate building support merely defers their real costs into the future. With rising primary enrolments throughout the district, the demand for upper primary education in Uttar Dinajpur is likely to rise substantially in the foreseeable future. This can only be met adequately and equitably if sufficient financial resources are made available to the district for the establishment and upgradation of upper primary schools.

Secondary school enrolments are concentrated in the Raiganj SD blocks, where the number of rural secondary schools available is also much larger, amounting in proportionate terms to 57 percent of the rural secondary schools in the district. However, the proportion of secondary schools functioning from semi-pucca premises is also larger in the subdivision, particularly in Hemtabad and Itahar, indicating that the expansion of secondary enrolments in the subdivision has been achieved by economising on the infrastructural costs of secondary school buildings. Although the proportionate presence of rural secondary schools is much lower through Islampur SD, blocks like Karandighi, Goalpokhar-2 and Chopra have had to increase enrolment by running more schools from semi-pucca buildings. While the higher rural secondary and HS enrolments in Goalpokhar-2 and Karandighi show a threshold effect associated with their contiguity to Raiganj SD, enrolments in Chopra have apparently increased because of the contiguity of the block to the educationally-progressive district of Darjeeling. Since secondary education in Uttar Dinajpur is provided at both secondary and integrated HS schools, the overall deficiency of secondary institutions in Islampur SD is partially made up by the presence of additional HS schools, the greater proportion of which have been accommodated in permanent school buildings. However in Goalpokhar-1, Hemtabad, Kaliaganj and Itahar, several rural HS schools still function from semi-pucca buildings. In terms of building infrastructure, the position of urban schools in Uttar Dinajpur is not fundamentally better. Nearly 4 out of every 10 primary and upper primary schools, 17 percent of urban secondary schools and 10 percent HS schools still function from semi-pucca accommodation. Nearly 40 percent of the urban schools at all levels with permanent buildings are located in Raiganj municipality, while around 20 percent each are located at Islampur and Kaliaganj. The rest of the pucca schools are distributed in the census towns of Kasba and Nachhratpur-Katabari, which are outward extensions of the city, and the smaller municipality at Dalkhola.

Somewhat paradoxically, however, the AISES data also reveal that Hemtabad which was the most literate block in the district in 2001 had 24 primary schools (28% of the total number) running under the open sky. A total of 44 primary schools in Uttar Dinajpur came under this category, which were scattered through all blocks other than Chopra, Goalpokhar-2 and Karandighi. In a district like Uttar Dinajpur which hitherto had low literacy and educational achievements, this in itself is not necessarily a bad statistic. Rather, the example of Chopra and Itahar where the majority of primary schools function from semi-pucca accommodation, or Hemtabad where 8 out of every 10 primary schools function either in semi-pucca accommodation or under the open sky basically proves the point that rising literacy generates a parallel demand for education which must be met by creating new avenues for raising school enrolment. The solutions attempted in these blocks are far from ideal, if viewed against the interests of quality education. However, better solutions can only be found if there is a serious effort by the state to rectify the existing

institutional and infrastructural imbalances in Uttar Dinajpur by guaranteeing the flow of new funding for its educational sector.

### Classroom Availability & Status

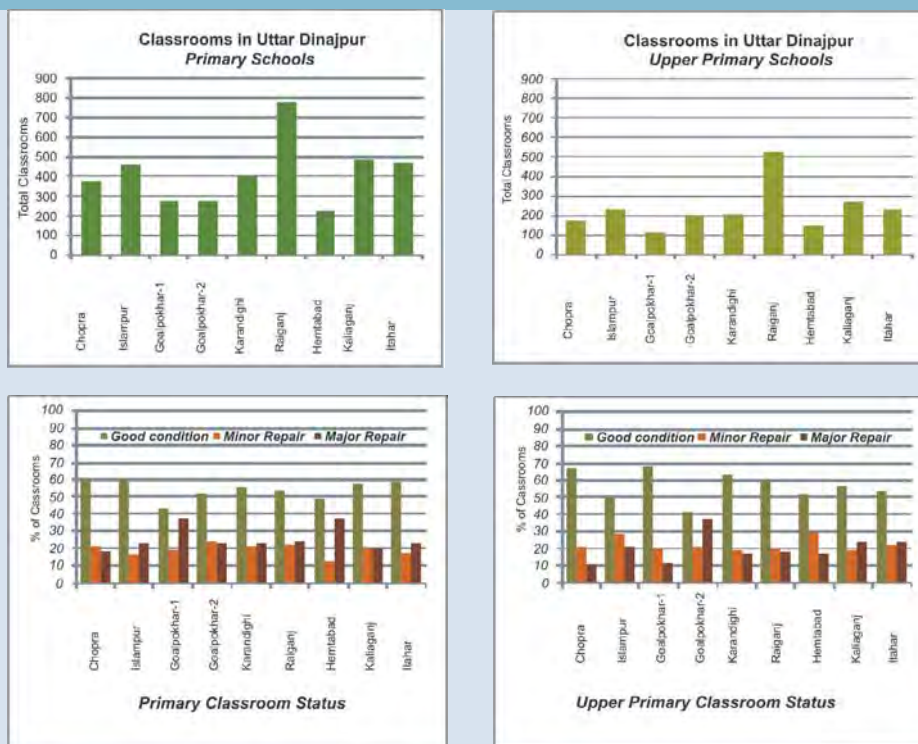
Information from the District Information System for School Education [DISE] for the year 2006-07, indicates the quality of classroom facilities available at primary and upper primary schools in the Uttar Dinajpur blocks, under the three-fold classification of classrooms in good condition, those needing minor repair and those needing major repair. A total of 5851 classrooms were available in Uttar Dinajpur in 2006, of which more than two-thirds were available at rural and urban upper primary schools, while the urban and rural schools offering facilities for upper primary education, which included integrated secondary and HS schools, constituted around 11 percent of the total educational institutions in the district. In ratio terms, classroom availability was better in Raiganj SD with an average of around 4 classrooms per institution, while the average classroom availability per institution in Islampur SD was around 3.5, mainly because of the dearth of upper primary schools. While Goalpokhar-2 ranked the lowest in the district offering only 3.2 classrooms per institution, Raiganj and Hemtabad both offered an average of 4.2 classrooms in ratio terms, despite the vast differences between them in the number of schools.

A little more than half of the classrooms at primary and upper primary schools in Uttar Dinajpur were graded as being in good condition, attesting to the relative newness of the school infrastructure in the district. Nevertheless a quarter of the primary classrooms and a fifth of the upper primary classrooms in Uttar Dinajpur were in need of major repairs. Among primary schools, Chopra and Islampur had the largest number of classrooms in good condition, and were followed by Itahar and Kaliaganj under Raiganj SD. In contrast, Goalpokhar-1 and Hemtabad had the largest proportion of primary classrooms needing repair, and in most cases the repairs required were of a major nature. However, at the upper primary stage, classroom quality was best in Chopra and Goalpokhar-1, and was worst in Goalpokhar-2 and Islampur. More than a third of the upper primary classrooms available in Goalpokhar-2 thus needed major repairs, while a fifth of the classrooms in Islampur were in a similar state. A significant proportion of the funds available under SSM in Uttar Dinajpur is thus being expended on urgently needed renewal and repair.

**Table: Status of Classrooms at Primary & Upper Primary Schools in Uttar Dinajpur, 2006**

CD Block	Total Classrooms in Rural & Urban Primary Schools	% Classrooms in Good Condition Primary Schools	% Needing Minor Repair Primary Schools	% Needing Major Repair Primary Schools	Total Classrooms in Rural & Urban U/Primary Schools	% Classrooms in Good Condition U/Primary Schools	% Needing Minor Repair U/Primary Schools	% Needing Major Repair U/Primary Schools
Chopra	374	60.2	21.1	18.7	175	67.4	21.7	10.9
Islampur	457	60.8	16.4	22.8	235	49.8	28.9	21.3
Goalpokhar-1	273	43.6	19.0	37.4	112	67.9	20.5	11.6
Goalpokhar-2	278	52.5	24.5	23.0	204	41.2	21.1	37.7
Karandighi	402	55.7	21.4	22.9	210	62.9	19.5	17.6
Raiganj	779	53.5	22.1	24.4	520	60.2	21.0	18.8
Hemtabad	218	49.5	12.8	37.6	150	52.0	30.0	18.0
Kaliaganj	486	58.0	21.0	21.0	277	56.7	19.1	24.2
Itahar	468	59.0	17.5	23.5	233	53.6	22.3	24.0
<b>Uttar Dinajpur DT</b>	<b>3735</b>	<b>55.6</b>	<b>19.9</b>	<b>24.5</b>	<b>2116</b>	<b>56.7</b>	<b>22.3</b>	<b>21.0</b>

Source: DISE, 2006, Uttar Dinajpur



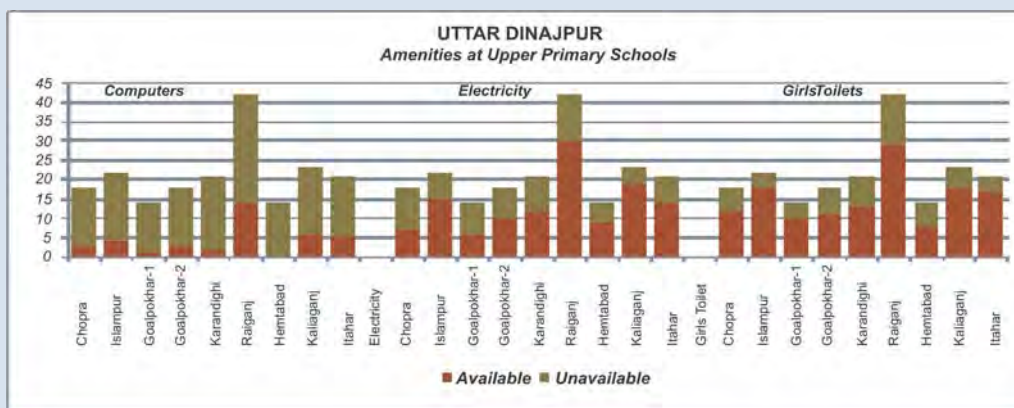
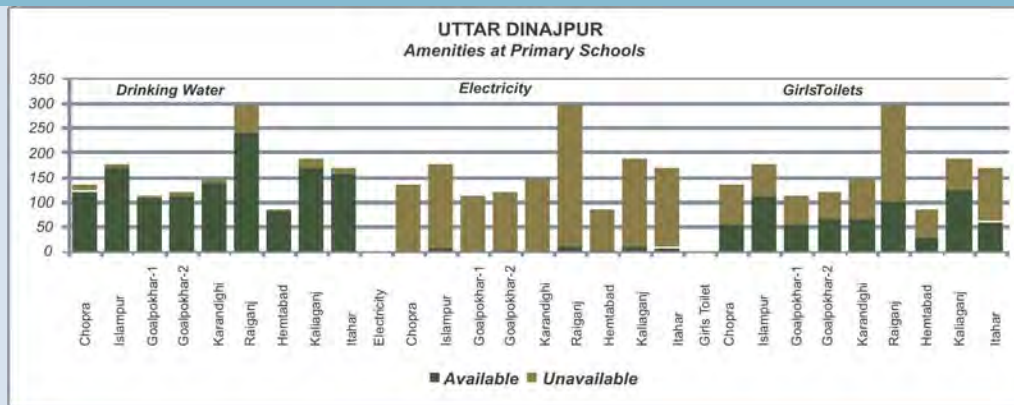
## Amenities Provided by Schools

The efficiency of the district school system in Uttar Dinajpur is determined to a great extent by the siting and staffing of individual school Institutions, which in turn determine the accessibility and quality of school education. Besides building infrastructure, other factors that also contribute towards improving enrolment, daily attendance and retention within the school system include the basic amenities provided to students by the schools. Drawing data from DISE, specific attention can be focused on essential school amenities such as the provision of drinking water and adequate toilet facilities to schoolchildren, as well as the availability of electricity connections and facilities for computer learning at primary and upper primary schools in Uttar Dinajpur and its blocks.

**Table: Basic Amenities Provided at Primary & Upper Primary Schools in Uttar Dinajpur, 2006**

	Total Rural&Urban Primary Schools	Provision for Drinking Water	Electrical Connection	Separate Toilet Facilities for Girls	Total Rural & Urban U/Primary Schools	Computer Facilities	Electrical Connection	Separate Toilet Facilities for Girls
Chopra	137	121	1	58	18	3	7	12
Islampur	175	171	6	113	22	4	15	18
Goalpokhar-1	112	109	1	55	14	1	6	10
Goalpokhar-2	119	112	4	65	18	3	10	11
Karandighi	146	139	1	69	21	2	12	13
Raiganj	298	242	11	99	42	14	30	29
Hemtabad	85	83	3	28	14	0	9	8
Kaliaganj	187	169	11	123	23	6	19	18
Itahar	171	156	8	62	21	5	14	17
<b>Uttar Dinajpur DT</b>	<b>1430</b>	<b>1302</b>	<b>46</b>	<b>672</b>	<b>193</b>	<b>38</b>	<b>122</b>	<b>156</b>

Source: DISE, 2006, Uttar Dinajpur



The access of schoolchildren to safe drinking water is an essential human development attribute, since it also directly affects the health status of the district. With 91 percent of the primary schools in Uttar Dinajpur being able to provide safe drinking water to their students in 2006, it might be said that this amenity is now fairly adequately provided to schoolchildren in Uttar Dinajpur district. However, since no block reports cent percent coverage at its schools as yet, and since the coverage rates are distinctly below the district average in Chopra and Raiganj blocks where there has been considerable proliferation of rural schools, the situation requires careful monitoring. Although most primary and upper primary schools in Uttar Dinajpur are coeducational, the provision of separate toilet facilities for boys and girls at the large number of primary schools in the district has proved to be a much more daunting task. Hence, the coverage rate for primary schools was less than 47 percent for the district as a whole, and was distinctly low in the Raiganj SD blocks, where Itahar, Raiganj and Hemtabad reported under 37 percent coverage. Islampur and Kaliaganj, on the other hand, have both provided a large proportion among their primary schools with permanent buildings. Hence the coverage rates for the provision of separate toilet facilities to schoolgirls in these blocks were better at 65 percent or more. At the existing ratio of one upper primary school for every 14 primary schools in Uttar Dinajpur, the coverage targets for upper primary schools are more moderate in scale, and 81 percent of upper primary institutions in the district have thus been able to provide separate toilet facilities so far to their girl students. Nevertheless, less than 58 percent of the upper primary schools in Hemtabad have been able to extend this amenity, and the coverage rates in Chopra, Goalpokhar-2, Karandighi and Raiganj are well short of 70 percent. Since the Islampur SD blocks have fewer institutions to cover, the progress is far from satisfactory.

Provision of electricity connections to the scattered network of rural primary schools however presents a major challenge in Uttar Dinajpur, where less than 13 percent of the rural households had received domestic electricity connections till 2005 against 25 percent for West Bengal as a whole. Under the relaxed norms used earlier, a village was deemed to have been electrified if power lines had reached its revenue boundaries, regardless of whether the necessary transmission and distribution equipment had been installed and power was actually being drawn or not. Even with these old norms, rural electrification rates for the Uttar Dinajpur villages had touched 93 percent in 2004, with Islampur SD recording less than 90 percent village electrification against 97 percent for the Raiganj SD villages. Although, as a border district, Uttar Dinajpur has been brought under the intensive village electrification programme of the Rajiv Gandhi Grameen Vidyutikaran Yojana [RGGVY] since 2005, little progress has been achieved so far on the ground.

Thus through the entire district, only 42 out of the 1460 primary schools had received electricity connections till 2006, at a coverage rate of just over 3 percent. While Kaliaganj and Itahar were nominally better placed with their coverage at 5-6 percent, the three Islampur SD blocks of Karandighi, Goalpokhar-1 and Chopra lagged far behind with coverage rates that had not even touched 1 percent. Once again, with fewer institutions to be covered, 122 out of 193 upper primary schools in Uttar Dinajpur had received electricity connections till 2006, at a coverage rate of 63 percent for the district, indicating that their electricity needs were being prioritised. Kaliaganj led the other blocks with electrification of 83 percent of its institutions, followed by Raiganj with 71 percent. The other Raiganj SD blocks too did better than the district average. Among the upper primary schools in Islampur SD, in contrast, only those in Islampur block exceeded the district average with a coverage rate of 68 percent. Chopra and Goalpokhar-2 were once again left far behind with coverage of barely 40 percent of their upper primary institutions.

In the absence of adequate electrical connectivity, the introduction of computer learning at rural schools in the district is still a far cry. Through Uttar Dinajpur as a whole, 38 out of 193 upper primary schools reported having computer facilities, at a coverage rate of less than 20 percent for the district, with 14 of these institutions being located at Raiganj. Exceedingly low computerisation rates were reported throughout the Islampur SD blocks, with Goalpokhar-1 and Karandighi placed extremely far behind. As already observed, Uttar Dinajpur suffers from serious institutional deficiencies in its network of upper primary schools, which effectively halts the education of a large number of rural children. To bridge this institutional gap, greater numbers of new upper primary schools will have to be established in Uttar Dinajpur's remote border villages, which will also need intensive electrification if electrical connections are to be adequately provided to these schools. The introduction of computer education at rural upper primary schools is an important short term educational objective in itself, since it can enable rural students to cross the threshold into the modern professions. So far, less than one out of every five upper primary school institutions in the district is in a position to provide computer facilities even for office purposes, and most of those that can are located either at urban or at semi-urban settlements. Universalisation of computer education at schools thus requires careful coordination of rural electrification and educational planning in Uttar Dinajpur, to be implemented according to a strictly time-bound schedule.

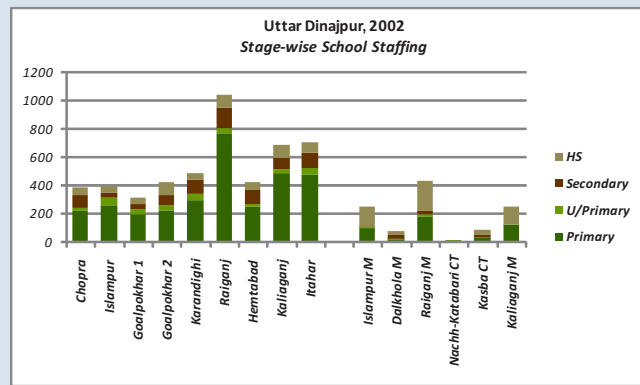
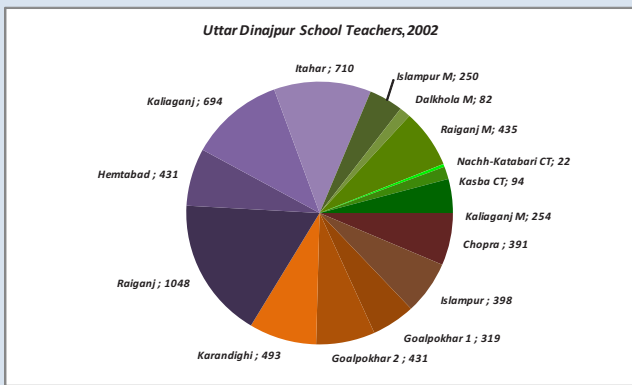
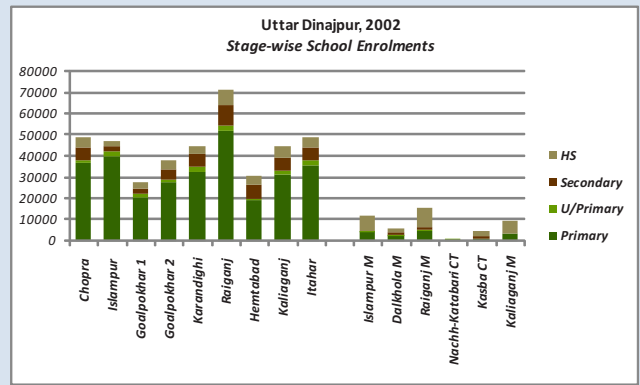
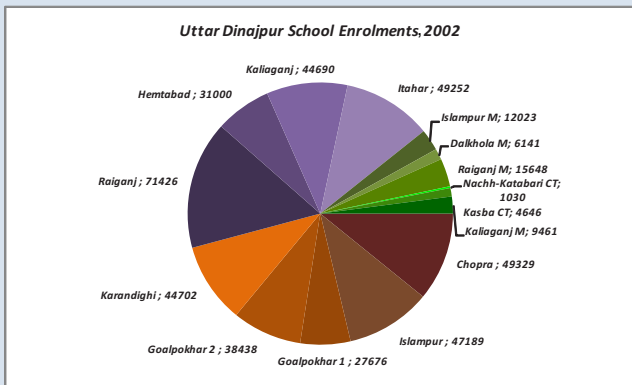
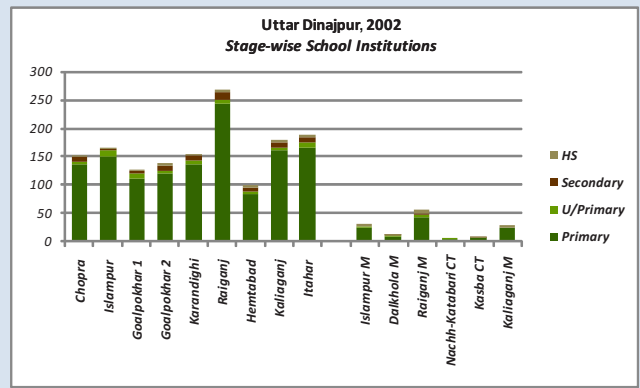
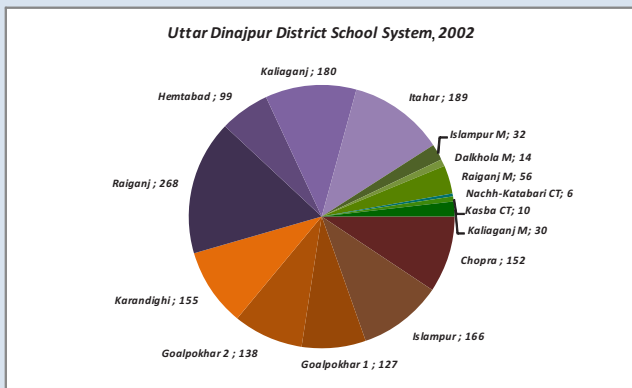
### School Staffing Patterns

The general overview of the existing district school system in Uttar Dinajpur provided through the accompanying charts, using data from the 7th AISES 2002, gives a clear picture of the existing regional imbalances within the education sector in Uttar Dinajpur. Thus, with approximately 37 percent of the district population, Raiganj SD accounts for 52 percent of the schools and 50 percent of the school teachers in Uttar Dinajpur and has a student enrolment equivalent to 61 percent of the total school enrolments in the district. On the other hand, with a subdivisional population that is nearly twice as large as that in



Raiganj SD, Islampur SD has 58 percent of the schools and 50 percent of the teachers, enrolling around 40 percent of the school students in the district. In terms of institutional and teaching strength, primary, secondary and HS education is more developed in Raiganj SD. However, Islampur SD has a larger proportion of the upper primary institutions and teachers and also surpasses Raiganj SD in terms of primary and upper primary enrolments. Thereafter, the focus shifts to Raiganj SD during the secondary and HS stages. With the majority of the secondary and HS schools located within the subdivision, Raiganj SD accounts for about 58 percent of the aggregate student enrolments at these higher stages. Most strikingly, Raiganj SD has 64 percent of the primary teachers in Uttar Dinajpur and also has 57 percent of secondary teachers and 60 percent of the HS teachers. Consequently, the average teaching strength per institution in Raiganj SD substantially exceeds that in Islampur SD at the primary, upper primary and HS stages.

OVERVIEW OF THE DISTRICT SCHOOL SYSTEM IN UTTAR DINAJPUR



A more detailed analysis of current school staffing patterns in Uttar Dinajpur can be made using DISE data for the reference year 2006 relating to the elementary school system, i.e. primary and upper primary school institutions. On an average, every upper primary school in Uttar Dinajpur serves a catchment of 7.4 primary schools. With more upper primary schools being located in the urban areas, each urban primary school serves a smaller catchment of 3.3 schools on the average. Each rural upper primary school, on the other hand, has to cater to a catchment of 8.2 primary schools on the average. With access to upper primary education being better in Raiganj SD, the ratio of primary to upper primary students is uniformly less than 2 in all the Raiganj SD blocks. In the Islampur SD blocks, on the other hand, this ratio varies from 2.4 in Karandighi to 4.4 in Islampur block, indicating that much higher enrolment pressure now falls on upper primary schools in this subdivision. On an average, primary teachers outnumber upper primary teachers in the ratio 1.7:1 in Uttar Dinajpur. However in all municipal towns except Dalkola, upper primary teachers outnumber primary teachers by a considerable proportion, as a consequence of which there is much lower staffing at rural primary schools throughout the district. As the ratio-analysis shows, staffing levels at primary and upper primary schools are much higher in the Raiganj SD blocks compared to those in Islampur SD. At urban schools, they rise even more strikingly in Islampur and Kaliaganj municipalities. The impact is felt ultimately at primary schools in blocks like Goalpokhar-1 and Golapokhar-2 where distinctly lower staffing ratios prevail. Ultimately, the impact is felt in terms of a decline in the quality of instruction in these backward blocks.

Appointment of women teachers in adequate numbers to teach younger children is a well-tested way of enhancing primary enrolments and learner retention. Instruction by women teachers is also known to lower dropout rates throughout the primary school system. At all rural primary schools in Uttar Dinajpur, however, the presence of women teachers still remains conspicuously low. In the Islampur SD blocks, where male primary teachers outnumber female primary teachers in the ratio 9:1, the staffing patterns are particularly gender adverse. In fact, only Raiganj and Kaliaganj municipalities record a more favourable gender position at their urban primary schools. In all, the 1776 women teachers serving at primary and upper primary schools in Uttar Dinajpur in 2006 thus constituted just below one-fourth of the total staff-strength of 7370 teachers in the district elementary school system. As a result of the marked trend towards deploying them largely in urban postings, they constituted 57 percent of the staff-strength at urban primary schools and 49 percent at urban upper primary schools. At rural schools, their presence was under 20 percent in both primary and upper primary schools. While Raiganj municipality and the surrounding Raiganj block area accounted for a third of the women teachers serving in the district, they also had a larger presence in the neighbouring Raiganj SD blocks of Kaliaganj, Hemtabad and Itahar, as well as in Karandighi, all of which are within commuting distance of Raiganj town. Hence, besides the fact that there is insufficient recruitment of women teachers, the other major problem relates to their deployment.

**Table: Structure of the Elementary Education System in Uttar Dinajpur, 2006**

CD Block/Town	Total Primary Schools	Total Primary Teachers	Male Primary Teachers	Female Primary Students	Total Primary Students	Total Upper Primary Schools	Total Upper Primary Teachers	Male Upper Primary Teachers	Female Upper Primary Teachers	Total Upper Primary Students
Chopra	137	405	371	34	39710	17	243	183	60	15436
Islampur	157	456	408	48	39728	15	161	124	37	9094
Goalpokhar-1	112	285	269	16	27837	14	137	111	26	8353
Goalpokhar-2	119	307	278	29	31603	18	206	171	35	12270

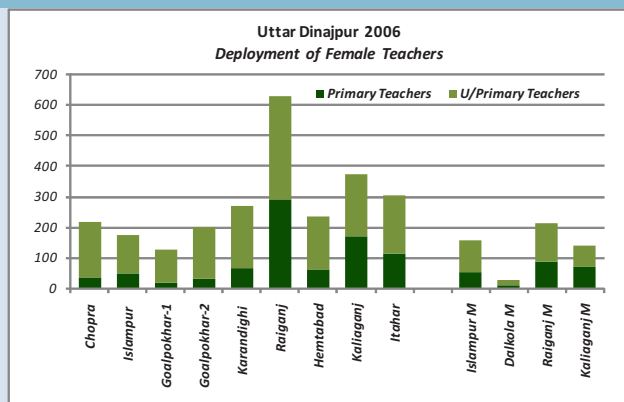
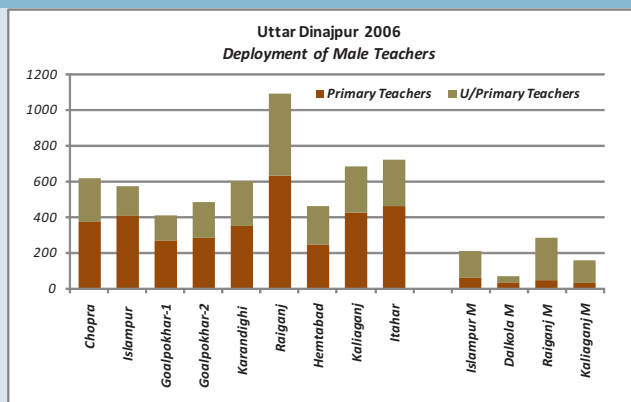
**Table: Structure of the Elementary Education System in Uttar Dinajpur, 2006 (Contd.)**

CD Block/Town	Total Primary Schools	Total Primary Teachers	Male Primary Teachers	Female Primary Students	Total Primary Students	Total Upper Primary Schools	Total Upper Primary Teachers	Male Upper Primary Teachers	Female Upper Primary Teachers	Total Upper Primary Students
Karandighi	134	410	346	64	35847	17	251	202	49	14816
Raiganj	255	918	629	289	44010	28	459	338	121	24020
Hemtabad	85	301	241	60	15564	14	216	172	44	11051
Kaliaganj	162	589	421	168	25732	18	263	202	61	14145
Itahar	171	573	461	112	30849	21	261	190	71	16328
<i>Uttar Dinajpur Rural</i>	<i>1332</i>	<i>4244</i>	<i>3424</i>	<i>820</i>	<i>290880</i>	<i>162</i>	<i>2197</i>	<i>1693</i>	<i>504</i>	<i>125513</i>
Islampur M	18	108	58	50	2858	7	153	105	48	4442
Dalkhola M	12	38	30	8	3117	4	35	19	16	2691
Raiganj M	43	131	44	87	4088	14	240	124	116	6755
Kaliaganj M	25	100	30	70	3129	5	124	67	57	3781
<i>Uttar Dinajpur Urban</i>	<i>98</i>	<i>377</i>	<i>162</i>	<i>215</i>	<i>13192</i>	<i>30</i>	<i>552</i>	<i>315</i>	<i>237</i>	<i>17669</i>
<b>Uttar Dinajpur DT</b>	<b>1430</b>	<b>4621</b>	<b>3586</b>	<b>1035</b>	<b>304072</b>	<b>192</b>	<b>2749</b>	<b>2008</b>	<b>741</b>	<b>14318</b>

**RATIO ANALYSIS**

CD Block/Town	Average Staff per Primary School	Primary Female-Male Teacher Ratio	Primary Pupil-Teacher Ratio [PTR]	Average Staff per U/Primary School	U/Primary Female-Male Teacher Ratio	U/Primary Pupil-Teacher Ratio [PTR]
Chopra	2.96	0.09	98	14.29	0.33	64
Islampur	2.90	0.12	87	10.73	0.30	56
Goalpokhar-1	2.54	0.06	98	9.79	0.23	61
Goalpokhar-2	2.58	0.10	103	11.44	0.20	60
Karandighi	3.06	0.18	87	14.76	0.24	59
Raiganj	3.60	0.46	48	16.39	0.36	52
Hemtabad	3.54	0.25	52	15.43	0.26	51
Kaliaganj	3.64	0.40	44	14.61	0.30	54
Itahar	3.35	0.24	54	12.43	0.37	63
<i>Uttar Dinajpur Rural</i>	<i>3.19</i>	<i>0.24</i>	<i>69</i>	<i>13.56</i>	<i>0.30</i>	<i>57</i>
Islampur M	6.00	0.86	26	21.86	0.46	29
Dalkhola M	3.17	0.27	82	8.75	0.84	77
Raiganj M	3.05	1.98	31	17.14	0.94	28
Kaliaganj M	4.00	2.33	31	24.80	0.85	30
<i>Uttar Dinajpur Urban</i>	<i>3.85</i>	<i>1.33</i>	<i>35</i>	<i>18.40</i>	<i>0.75</i>	<i>32</i>
<b>Uttar Dinajpur DT</b>	<b>3.23</b>	<b>0.29</b>	<b>66</b>	<b>14.32</b>	<b>0.37</b>	<b>52</b>

Source: DISE, 2006, Uttar Dinajpur



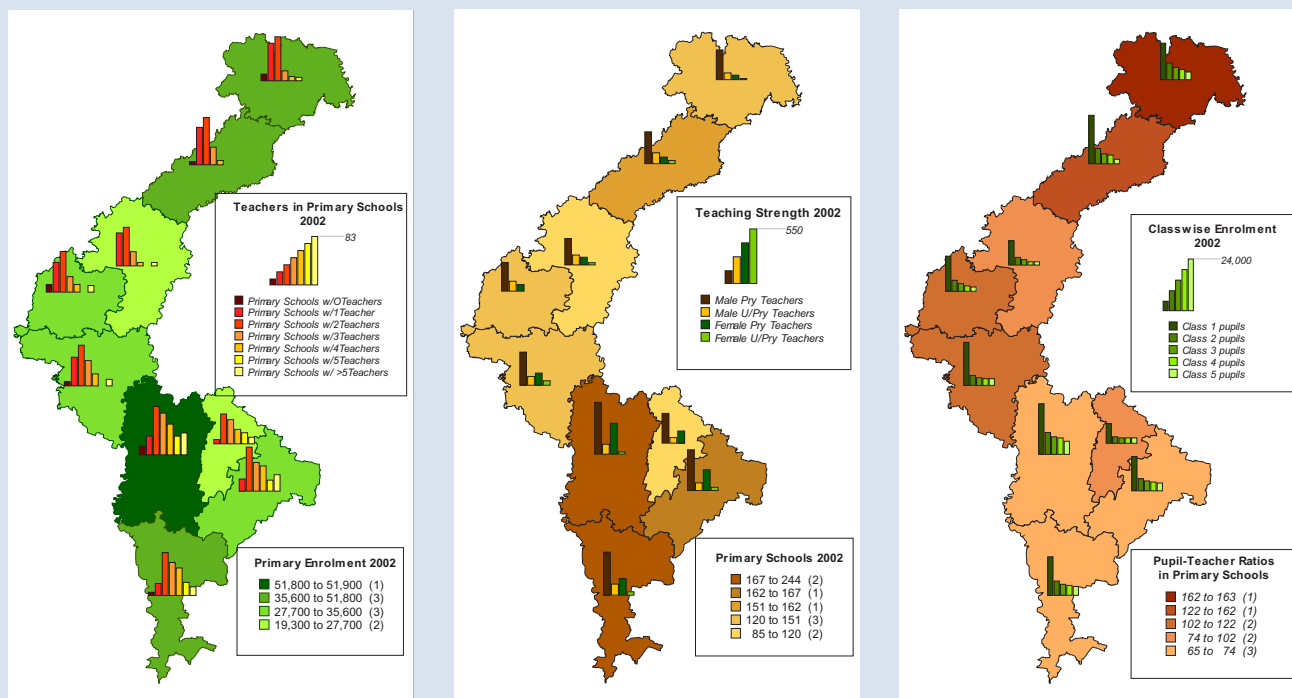
The impact of such staffing anomalies and enrolment pressures is inevitably felt through the pupil-teacher ratios [PTRs] which have a direct bearing on the quality of instruction at schools in Uttar Dinajpur. Against the national norm of 40 pupils per teacher at the primary stage, the average PTR at primary schools for Uttar Dinajpur as a whole reaches 66 per teacher. Substantial differences are also noticeable between rural and urban PTRs and between the PTRs of the Raiganj SD primary schools versus those under Islampur SD. Except for the new municipal town of Dalkola, PTRs at primary schools in the other Uttar Dinajpur municipalities which average 35 per teachers are well within acceptable norms. The rural primary schools located in Raiganj and Kaliaganj blocks are also within acceptable distance from the national norms for PTRs at the primary school stage. Throughout the rural primary schools in the Islampur SD blocks, however, the ratio of pupils to teachers is well over twice the national norm and also well above the state average of 66 pupils per teacher for West Bengal. Even though the number of institutions decline drastically at the upper primary stage and better staffing norms are followed, the PTR for all upper primary schools in Uttar Dinajpur district averages 66 against the recommendation of 40 students per teacher. Once again, while the urban primary schools are well within the recommended norm, the rural upper primary schools exceed it considerably, and once more, the Islampur SD schools are placed far behind those in Raiganj SD. The PTR patterns also indicate a high degree of crowding at rural schools, which is also borne out by the student-classroom ratios [SCRs] for the different Uttar Dinajpur blocks. For Uttar Dinajpur as whole, there are 78 students per classroom on average in the primary schools and 59 on average in the upper primary schools. For the Islampur SD blocks, the SCR at primary schools is invariably over 97 and touches 114 in Goalpokhar-2, 102 in Goalpokhar-1 and 106 in Chopra. In contrast the Raiganj SD blocks are all favourably more placed. Hemtabad has the highest SCR of 71 and Raiganj with a ratio of 61 students per classroom has the least crowded primary schools in the district. At the upper primary stage, only Raiganj and Islampur have SCRs close to or matching the district average of 59 students per classroom, because of their higher concentrations of upper primary schools. At all other blocks in Uttar Dinajpur have more students per classroom, and the upper primary schools in Chopra and Karandighi are most crowded with SCRs in excess of 83 students per classroom.

Using AISES data for 2002, assessment can be made of the regional impact of shortage in teaching staff on the primary school system in Uttar Dinajpur district. As the staffing patterns in regional maps show, the median teaching strength at rural primary schools in Uttar Dinajpur is two teachers per institution. Throughout Islampur SD however, a large proportion of rural primary schools run with a single teacher, even in blocks where primary enrolment is relatively high such as Chopra and Islampur. Very few primary schools in the subdivision have thus reached the Operation Blackboard [OB] norm of three teachers per institution. In contrast, at primary schools in the four blocks of Raiganj SD, many more schools surpass the

OB norm with three or even more teachers. Besides having the largest primary enrolment and the largest number of primary schools, Raiganj block also has the largest number of multi-teacher schools. Even in Hemtabad with relatively lower enrolments and fewer schools, most primary schools are well endowed with teachers. Thus there are many more teachers to meet the learning needs of rural students in the Raiganj SD blocks, than in the Islampur SD primary schools. Eighteen zero-teacher primary schools were functioning in Uttar Dinajpur in 2002, because of retirements, transitional vacancies and other reasons. As can be seen, most of these were distributed over the Islampur SD blocks.

As observed earlier from the DISE data, most women teachers serving in Uttar Dinajpur were deployed in the Raiganj SD blocks with a fair proportion of them also serving at upper primary schools. While this reflected the higher density of schools in Raiganj SD, it left fewer teachers - male or female - to serve in the Islampur SD blocks, even though there were fewer institutions there and primary enrolment was relatively high. With such a large proportion of the district's primary teachers deployed in and around the Raiganj region, particularly at Raiganj, Kaliaganj and Itahar, too few primary teachers were deployed in the Islampur SD blocks, even though the bulk of Uttar Dinajpur's primary students were enrolled at schools in these five blocks. Accordingly, primary pupil-teacher ratios rose to unacceptable levels throughout the Islampur SD primary schools, coinciding inevitably with overcrowding as well as a drastic lowering in the quality of instruction.

**MAP: Primary Schools, Staff Deployment & System Loads in Uttar Dinajpur, 2002**



The major component of primary enrolments all through Uttar Dinajpur comprises students who are enrolled in Class I. There is invariably a sharp fall in enrolments between Class 1 and Class 2, indicating that learner retention in the district is still very poor. However from Class 2 until Class 4, the decline is moderate, so that there is ultimately more conformity between the number of students who leave primary schools at the Class 4 stage and the low intake capacity of the upper primary system at Class 5. From the regional maps, it can be seen clearly that the fall in enrolment after Class 1 is highest for the Islampur SD

blocks where the primary school PTRs are also very high. In Raiganj and its surrounding blocks, retention levels are better than in Islampur SD schools. Besides the fact that there are more primary schools and less crowding in these blocks, the other determining factor is obviously the high deployment of teachers at rural primary schools. Although recent data from DISE report that the situation has improved somewhat and that the PTRs in Islampur SD are not as high as they were before, a lot more needs to be done by way of equitable teacher deployment between the two subdivisions if Uttar Dinajpur has to surmount its present educational backwardness.

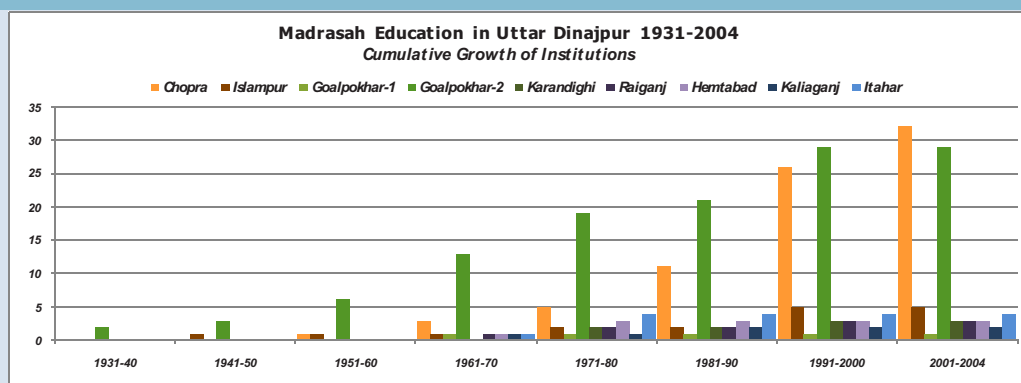
### Madrasah Education in Uttar Dinajpur

Uttar Dinajpur has a sizeable Muslim population of over 11.5 lakh, which has grown significantly from around 30 percent of the district population in 1951 to more than 47 percent currently. The northern blocks of the district are Muslim dominated, with the share of Muslims in the combined population of Chopra, Islampur, Goalpokhar-1 and Goalpokhar-2 blocks exceeding 67 percent. For the Muslim community, traditional education has centred around madrasahs and maqtabas, both originally customary institutions imparting instruction [Arabic: 'Dars'] in Arabic, Urdu and Persian, in addition to religious instruction on the Quran Sharif and Hadith. With the setting up of the Calcutta Madrasah in 1780 (now a Deemed University since 2008) at the instance of Warren Hastings, madrasah education in Bengal took a new turn. Modification of the traditional Dars-i-Nizami system introduced at the Calcutta Madrasah added instruction on subjects like Islamic jurisprudence to produce competently trained local officials who could handle bureaucratic and legal matters for the East India Company. English was later introduced in lieu of Persian under the reformed curriculum in 1890 at New Scheme madrasahs sponsored by the state, where the course of instruction was also subdivided into two successive stages. The state-supported system of madrasah education has since then been delivered through Junior High Madrasahs upto the Class 8 stage, and upto the Alim or matriculation level and the Fazil or HS level through High Madrasahs. In addition, Senior Madrasahs also exist which deliver instruction on the old Dars-i-Nizami pattern upto the Kamil or graduate level and the Mumtazul Mohaddeseen [MM] or postgraduation level. While the traditional Dars-i-Nizami curriculum had already incorporated several technical and vocational subjects including training in Unani tibb or medicine, further reforms in the New System curriculum added instruction on mainstream subjects like mathematics, geography and the social sciences.

**Table: Madrasahs Recognised by the West Bengal Government in Uttar Dinajpur, 2006**

CD Block	Muslim Population	% Muslims in Block Population	Recognised Junior High Madrasahs	Recognised High Madrasahs	Recognised Senior Madrasahs	Students at Recognised Madrasahs
Chopra	139023	62.3	-	1	1	1555
Islampur	171978	71.1	2	-	-	659
Goalpokhar-1	185457	75.6	-	-	-	-
Goalpokhar-2	139289	61.5	1	1	1	1800
Karandighi	157400	49.4	-	1	1	2650
Raiganj	118469	32.7	2	1	-	2402
Hemtabad	59698	50.2	1	1	1	1724
Kaliaganj	39334	20.7	1	-	1	893
Itahar	124876	50.0	2	1	-	1728
<b>Uttar Dinajpur Rural</b>	<b>1135524</b>	<b>52.2</b>	<b>9</b>	<b>6</b>	<b>5</b>	<b>13411</b>

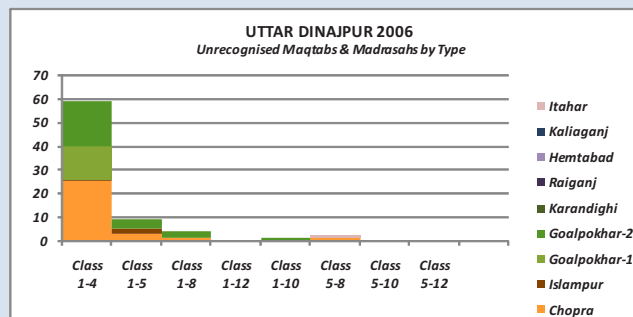
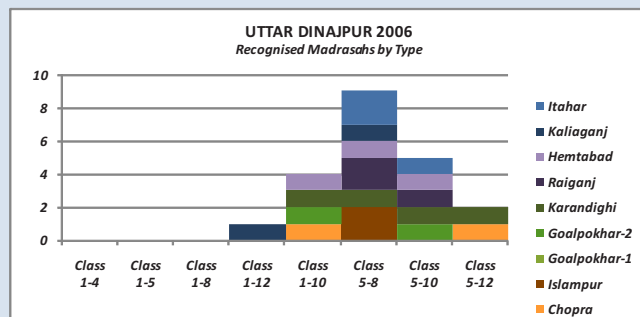
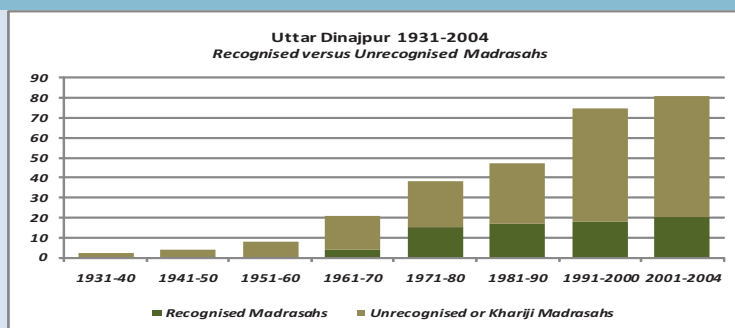
Source: West Bengal Board of Madrasah Education & DISE, 2006, Uttar Dinajpur



CD Block	1931-40	1941-50	1951-60	1961-70	1971-80	1981-90	1991-2000	2001-2004
Chopra	-	-	1	2	2	6	15	6
Islampur	-	1	-	-	1	-	3	-
Goalpokhar-1	-	-	-	1	-	-	-	-
Goalpokhar-2	2	1	3	7	6	2	8	-
Karandighi	-	-	-	-	2	-	1	-
Raiganj	-	-	-	1	1	-	1	-
Hemtabad	-	-	-	1	2	-	-	-
Kaliaganj	-	-	-	1	-	1	-	-
Itahar	-	-	-	1	3	-	-	-
<i>Net Decadal Addition</i>	2	2	4	13	17	9	28	6
<b>Total Institutions</b>	2	4	8	21	38	47	75	81
<i>Recognised Madrasahs</i>	-	-	-	4	15	17	18	20
<i>Khariji Madrasahs</i>	2	4	8	17	23	30	57	61

Source: DISE, 2006, Uttar Dinajpur

After the passing of the West Bengal Board of Madrasah Education Act in 1994, madrasah education in the state gained autonomous standing, with all affairs relating to affiliation and academic supervision of state-recognised madrasahs vesting with the WBBME. West Bengal was in fact the first Indian state to do so and the WBBME Act has become the model for similar legislations in other states. Another important achievement has been the establishment of an equivalence system under which students passing out from High Madrasahs can join HS institutions affiliated to the West Bengal Board for Higher Secondary Education [WBBHSE] for regular studies in the humanities stream. While this has gone a long way in mainstreaming madrasah education in West Bengal, the current challenge is to induct more general stream subjects as well as the sciences into the modernised curriculum to equip madrasah students with the skills necessary to compete on par with other mainstream students for higher education and job opportunities. The recent report of the Kidwai Committee has made several recommendations in this respect.



**Table: Institutional Levels within the Madrasah System in Uttar Dinajpur, 2006**

CD Blocks	Class 1-12	Class 1-10	Class 1-4	Class 1-5	Class 1-8	Jr High Madrasahs Class 5-8	High Madrasahs Class 5-10	High Madrasahs Class 5-12
<b>Recognised Madrasahs</b>								
Chopra	-	1	-	-	-	-	-	1
Islampur	-	-	-	-	-	2	-	-
Goalpokhar-1	-	-	-	-	-	-	-	-
Goalpokhar-2	-	1	-	-	-	-	1	-
Karandighi	-	1	-	-	-	1	-	1
Raiganj	-	-	-	-	-	2	1	-
Hemtabad	-	1	-	-	-	1	1	-
Kaliaganj	1	-	-	-	-	1	-	-
Itahar	-	-	-	-	-	2	1	-
<b>Unrecognised Khariji Maqtabs &amp; Madrasahs</b>								
Chopra	-	-	25	3	1	1	-	-
Islampur	-	-	1	2	-	-	-	-
Goalpokhar-1	-	-	14	-	-	-	-	-
Goalpokhar-2	-	1	19	4	3	-	-	-
Karandighi	-	-	-	-	-	-	-	-
Raiganj	-	-	-	-	-	-	-	-
Hemtabad	-	-	-	-	-	-	-	-
Kaliaganj	-	-	-	-	-	-	-	-
Itahar	-	-	-	-	-	1	-	-
<b>Total Recognised Institutions</b>	<b>1</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9</b>	<b>4</b>	<b>2</b>
<b>Total Unrecognised Institutions</b>	<b>-</b>	<b>1</b>	<b>59</b>	<b>9</b>	<b>4</b>	<b>2</b>	<b>-</b>	<b>-</b>

Source: DISE, 2006, Uttar Dinajpur



The madrasah system has traditionally played a very important role in the spread of literacy and education among the Muslim communities that reside within Uttar Dinajpur, and has received due recognition from the Government with significant steps being taken to modernise this traditional system. With the exception of Goalpokhar-1, all Uttar Dinajpur blocks have 2 or 3 state-recognised madrasahs which currently enrol over 1 percent of the rural Muslim population in the district. Total funding support for the development of madrasah education in the district in 2006 amounted to Rs.38.92 lakh, comprising Rs.38.21 lakh disbursed to state-recognised madrasahs as development grants under DPEP/SSA programmes and Rs.0.71 lakh as TLM grants for acquisition of teaching/learning materials. Except for the High Madrasahs at Rahatpur and Bindol which function from rent-free public buildings, all recognised madrasahs are accommodated in buildings constructed by the government. Of the 202 madrasah teachers in substantive service at the state-recognised institutions in 2006, over 94 percent had graduate qualifications while 49 percent had also subsequently received professional training.

The growth of recognised and unrecognised madrasahs in Uttar Dinajpur has more or less kept pace with the rise in the Muslim population in the district, with the highest rates of growth being recorded in Chopra and Goalpokhar-2 blocks in Islampur sub-division, as can be seen in the accompanying barchart. However, while the growth rate of institutions in Goalpokhar-2 has been sustained since 1931, with minor dips occurring during the 1980s and between 2001-04, the institutional growth rate in Chopra is of more recent origin and is also much sharper. As the table shows, the growth of recognised madrasahs has been outstripped by the growth of unrecognised or khariji institutions set up autonomously without Government support. Although state support to recognised madrasahs commences at the Junior High (post-primary) stage, the students enter these madrasahs through the large network of maqtab and private khariji madrasahs that spreads across the district. Traditionally, the primary tier of the madrasah education system has been occupied by maqtab and ibtedai (elementary) madrasahs which are supported by community or donor funds. While instruction at the maqtab located at the local mosques mainly centres around the reading of Islamic texts and other religious matters, the ibtedai curriculum gradually introduces a wider variety of subjects. In the absence of other local educational institutions, the maqtab and elementary madrasahs are often the only avenue through which children in Muslim dominated areas can secure a primary education. When viewed in this light, the proliferation of khariji madrasah institutions through Chopra, Goalpokhar-1 & 2 and Islampur blocks reflects the persisting shortfall of formal primary schools in Muslim dominated areas, as well as the expectation that the community will meet its need for primary education from its own resources without equivalent public investment. Thinking of this kind is in part responsible for the continuing educational backwardness of the Muslim community in Uttar Dinajpur.

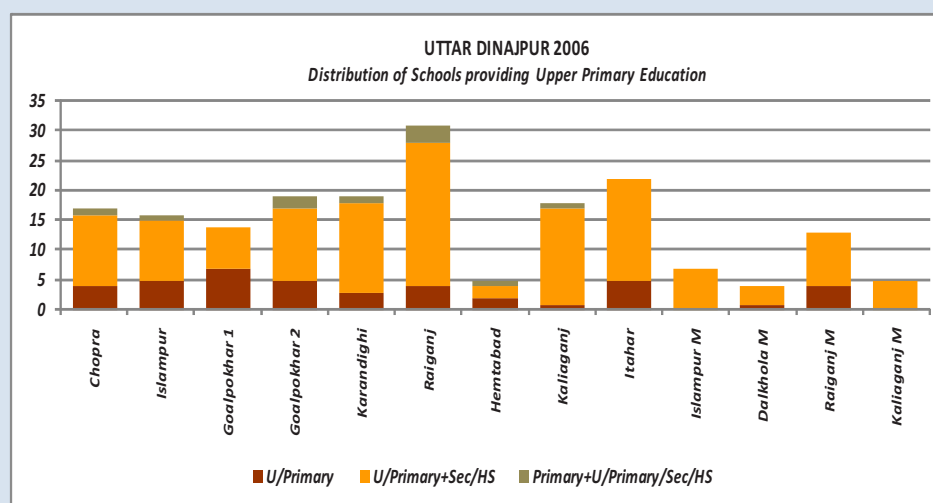
### **Enrolment, Educational Transition & School Drop-outs**

The adverse ratio between primary and upper primary schools is a phenomenon also encountered in other parts of the country, and therefore is not confined to Uttar Dinajpur alone. However in West Bengal, where substantial expansion in primary education took place beginning from the late 1970s in the effort to draw in more rural learners, the ratio has now turned highly adverse at an average of about 5.5 primary institutions for every upper primary institution, according to DISE 2006. High variability exists between rural and urban areas and between the districts. Thus, while in Purulia the ratio touched a high value of 8.4, it was lowest in Kolkata with 2.5 primary institutions for every upper primary institution, against the current national norm of 2:1. As an educationally backward district, Uttar Dinajpur too had a highly adverse ratio of 7.6 primary schools to every upper primary school according to DISE 2006, but with high intradistrict variability indicated by the urban ratio of 3.3 against 8.2 in rural areas. Among the Uttar Dinajpur blocks, the ratio ranged between a low of 6.1 in Hemtabad and a high of 10.5 in Islampur.

**Table: Distribution of Upper Primary Institutions in Uttar Dinajpur, 2006**

CD Block/Town	Total U/Primary Institutions	Only U/Primary Classes	U/Primary Secondary & HS Classes	Primary U/Primary Secondary & HS Classes
Chopra	17	4	12	1
Islampur	16	5	10	1
Goalpokhar-1	14	7	7	-
Goalpokhar-2	19	5	12	2
Karandighi	19	3	15	1
Raiganj	31	4	24	3
Hemtabad	5	2	2	1
Kaliaganj	18	1	16	1
Itahar	22	5	17	-
<i>Uttar Dinajpur Rural</i>	<i>161</i>	<i>36</i>	<i>115</i>	<i>10</i>
Islampur M	7	-	7	-
Dalkhola M	4	1	3	-
Raiganj M	13	4	9	-
Kaliaganj M	5	-	5	-
<b><i>Uttar Dinajpur Urban</i></b>	<b><i>29</i></b>	<b><i>5</i></b>	<b><i>24</i></b>	<b><i>-</i></b>
<b>Uttar Dinajpur DT</b>	<b>190</b>	<b>41</b>	<b>139</b>	<b>10</b>

Source: DISE, 2006, Uttar Dinajpur



After the introduction of an alternative education system under the Sishu Siksha Karmasuchi in 1997, the state had followed a policy of not upgrading existing primary schools or establishing new upper primary schools in unserved areas, choosing instead to meet such needs when they rose through the alternative

means of the Madhyamik Siksha Karmasuchi introduced in 2002 and later also through the open school system via the Rabindra Mukta Vidyalaya [RMV]. Thus while districts like Uttar Dinajpur and Purulia, where formal elementary education had made a slow start, failed to develop adequate institutional infrastructure for the upper primary stage, other West Bengal districts which had made early progress were more favourably placed in this respect. The same problem was also reflected by existing institutional disparities between urban and rural areas in the state. The resulting mismatch between the intake capacity of the upper primary system and the students who enrol at the primary stage also has an important bearing on the rates of learner retention and dropout rates in elementary education in Uttar Dinajpur and West Bengal.

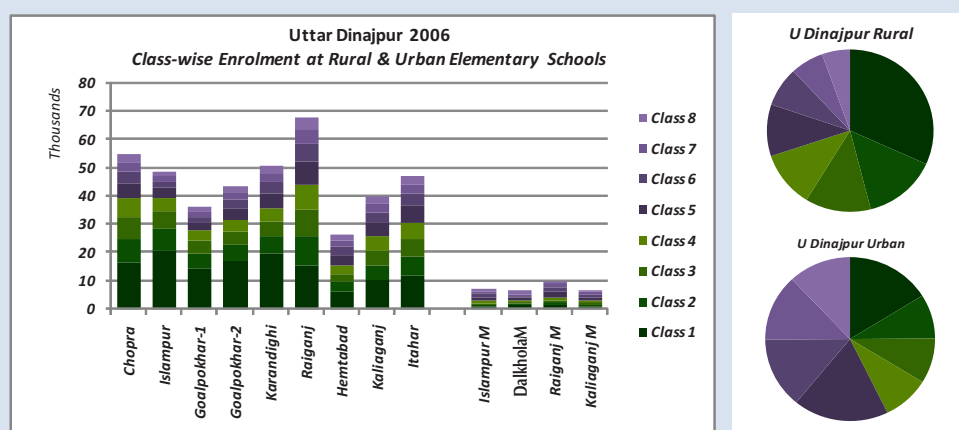
According to DISE 2006, there are 190 educational institutions that provide formal access to upper primary education in Uttar Dinajpur. Only a fifth among these solely offer upper primary education on exclusive basis, while the overwhelming majority provide post-primary education in a more integrated manner, combining upper primary with secondary and HS education. Ten fully integrated schools also exist in Uttar Dinajpur, all located in rural areas, which offer education that begins at Class 1 and ends at HS. With 44 upper primary institutions located within its block and municipal limits, Raiganj holds nearly a quarter of the upper primary institutions that exist in Uttar Dinajpur, and is thus able to offer the largest number of seats to primary students seeking to further their education. The block and municipal areas in Islampur and Kaliaganj together hold another 46 upper primary institutions, leaving the remaining 100 to be shared across six other Uttar Dinajpur blocks. A rural student seeking to transit from primary to upper primary education faces better prospects of finding it in and around the municipal towns, where the number of seats offered are highest. Also, since nearly 50 percent of the schools that offer admission to integrated upper primary, secondary and HS education are located within the block and municipal limits of Islampur, Raiganj and Kaliaganj, finding admission at these institutions clears the way for the student to advance academically to the HS stage. However, to secure admission, the rural student has to compete with students transiting from local primary schools and must also belong to a family with the economic means or social network to support a change of residence. Since only a few rural students can compete on equal terms, the current student-flow patterns, transition rates and dropout rates within the elementary school system in Uttar Dinajpur require closer examination.

The associated tables and charts summarise the class-wise enrolment patterns in the Uttar Dinajpur blocks and municipalities for the single year 2006-07. Total enrolment within the elementary education system in the district that year amounted to 4.47 lakh students, among whom 4.16 lakh students were enrolled in rural educational institutions against 0.31 lakh in urban areas. Of the aggregate students enrolled, 3.04 lakh (68%) were attending Classes 1-4 at primary institutions, against 1.43 lakh (32%) enrolled in Classes 5-8 at upper primary institutions in the district. Rural students comprised 96 percent of the total primary students and 88 percent of the upper primary students. However, as indicated by the ratio of upper primary to primary [UP:P] enrolments, there were significant differences between rural and urban enrolment patterns. All through the Uttar Dinajpur blocks, the rural upper primary to primary enrolment ratio was well below 1, indicating that there was substantial attrition in numbers between the students enrolled in the primary system and those enrolled in the upper primary system. While not measured specifically for a student cohort transiting through the elementary school system over successive years, the UP:P ratio offered an instantaneous approximation of the probability of transition for students currently attending primary institutions in Uttar Dinajpur at the point where they transited into the upper primary system. This was measured in terms of the difference in intake capacities between the two systems.

**Table: Enrolment at Elementary Schools in Uttar Dinajpur, 2006**

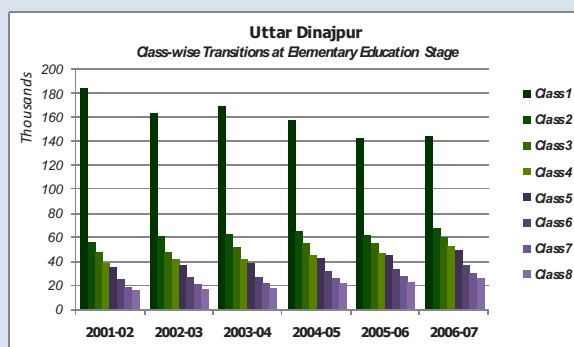
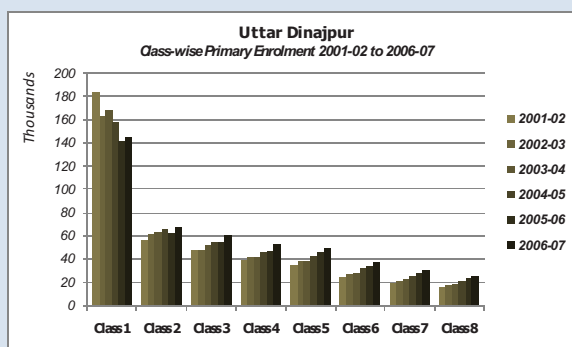
CD Block/Town	Class 1	Class 2	Class 3	Class 4	Primary Enrolment	Class 5	Class 6	Class 7	Class 8	Upper Primary Enrolment	Enrolment at Elementary Schools	UP:P Enrolment Ratio
Chopra	16395	8560	7878	6877	39710	4728	4137	3454	3117	15436	55146	0.39
Islampur	20916	7554	6182	5076	39728	3350	2282	1843	1619	9094	48822	0.23
Goalpokhar-1	14335	5662	4512	3328	27837	2751	2193	1850	1559	8353	36190	0.30
Goalpokhar-2	16963	5660	4965	4015	31603	4016	3387	2764	2103	12270	43873	0.39
Karandighi	19777	6257	5263	4550	35847	5257	3990	3034	2535	14816	50663	0.41
Raiganj	15401	10328	9514	8767	44010	8644	6070	4934	4372	24020	68030	0.55
Hemtabad	6491	3123	3035	2915	15564	3676	2917	2394	2064	11051	26615	0.71
Kaliaganj	10373	5334	5090	4935	25732	5090	3633	2945	2477	14145	39877	0.55
Itahar	11765	6869	6319	5896	30849	5831	4182	3542	2773	16328	47177	0.53
<i>U Dinajpur Rural</i>	<i>132416</i>	<i>59347</i>	<i>52758</i>	<i>46359</i>	<i>290880</i>	<i>43343</i>	<i>32791</i>	<i>26760</i>	<i>22619</i>	<i>125513</i>	<i>416393</i>	<i>0.43</i>
Islampur M	824	599	715	720	2858	1481	1136	1004	841	3781	1127	1.32
Dalkhola M	1478	618	548	473	3117	885	770	539	1548	6755	1543	2.17
Raiganj M	1543	813	803	929	4088	2105	1502	1600	821	4442	824	1.09
Kaliaganj M	1127	670	681	651	3129	1151	884	905	497	2691	1478	0.86
<i>U Dinajpur Urban</i>	<i>4972</i>	<i>2700</i>	<i>2747</i>	<i>2773</i>	<i>13192</i>	<i>5622</i>	<i>4292</i>	<i>4048</i>	<i>3707</i>	<i>17669</i>	<i>30861</i>	<i>1.34</i>
<b>Uttar Dinajpur DT</b>	<b>137388</b>	<b>62047</b>	<b>55505</b>	<b>49132</b>	<b>304072</b>	<b>48965</b>	<b>37083</b>	<b>30808</b>	<b>26326</b>	<b>143182</b>	<b>447254</b>	<b>0.47</b>

Source: DISE 2006, Uttar Dinajpur



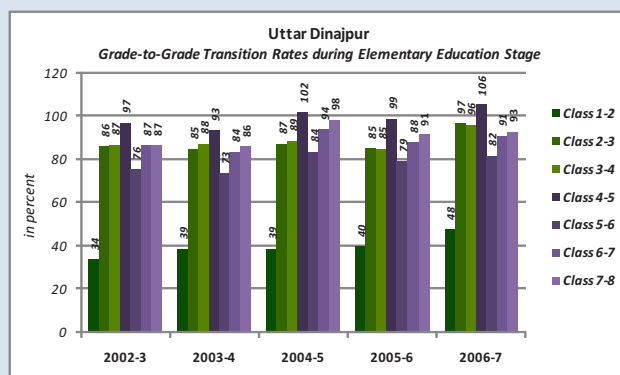
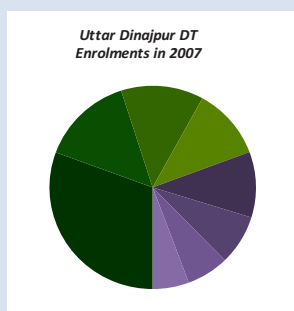
In contrast to the UP:P enrolment ratios for the Uttar Dinajpur blocks which ranged between a low of 0.23 in Islampur indicating low probability of transit, and a high of 0.71 in Hemtabad indicating high probability of transit, the UP:P enrolment ratios in municipal areas invariably exceeded unity with the sole exception of Kaliaganj municipality, and touched a high of 2.71 in Raiganj. The high ratios in urban areas established that the upper primary institutions located within municipal limits drew in more students than were enrolled in local primary schools. In Raiganj, where the ratio touched a maximum of 2.71, urban upper primary

institutions enrolled more than twice as many students as those enrolled at urban primary schools. Obviously, a large proportion of them came in to Raiganj from surrounding rural areas. Similarly, the high ratios for urban upper primary enrolments in Islampur and Dalkola municipalities provided evidence that the urban schools partially compensated for low transition in the surrounding rural areas of Islampur and Karandighi block. The low ratio for urban upper primary enrolment in Kaliaganj municipality appears to indicate that many primary students from that town transit to urban schools at the nearby district headquarters at Raiganj, where educational facilities are better.

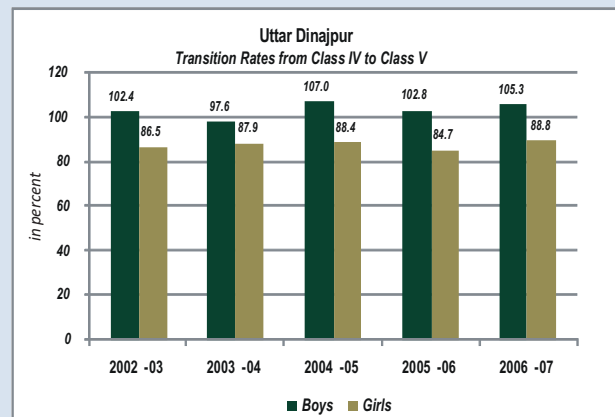
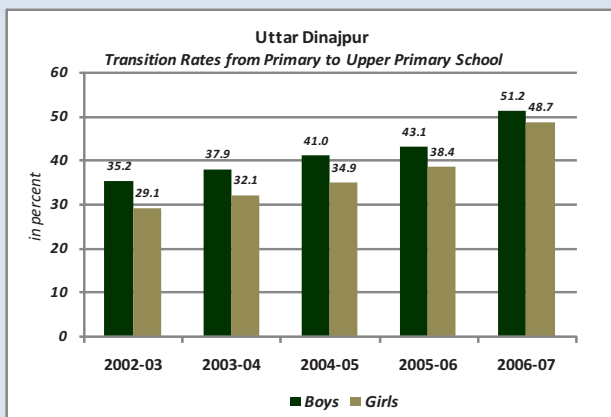


Class-wise enrolments in the elementary education system in Uttar Dinajpur district as a whole, for the period between 2001-02 to 2006-7, show a pronounced tendency for total Class 1 enrolments to decline over successive years, and for total enrolments to rise successively thereafter in the higher classes. Also strongly visible in the barcharts is the steep decline between Class 1 and Class 2 enrolments that invariably occurs every year. As a result of this decline, aggregate Class 2 enrolments throughout the period hover at well below 50 percent of the students who had enrolled in Class 1 the previous year. Thus while the aggregate Class 1 enrolments in Uttar Dinajpur during the given period averaged 1.61 lakh each year, the average Class 2 enrolment was much lower at 0.63 lakh. At the transition stage between Class 4 and Class 5, the decline in average enrolments was more moderate from 0.45 lakh to 0.42 lakh. Average enrolments then continued to decline from Class 5 to Class 8, till only 0.21 lakh students reached the point where they could graduate from the elementary education system.

However, despite this tendency for average class-by-class enrolments to decline over the period, enrolments within the same cohort of students over successive years showed that after an initially precipitous decline had occurred between Class 1 and Class 2 enrolments, retention within the system tended to improve gradually. This is brought out clearly by the grade-to-grade transition rates for the period 2002-03 to 2005-06.



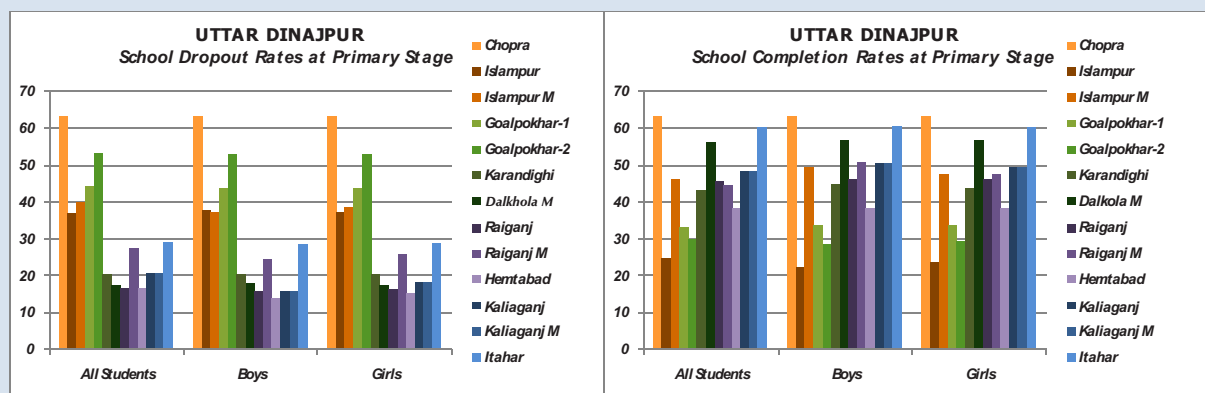
Total Class 1 enrolments in Uttar Dinajpur district stood at 1.45 lakh in 2006-07, having declined from 1.84 lakh in 2000-01. Aggregate primary enrolment grew from 3.27 lakh to 3.29 lakh over the same period, and upper primary enrolment rose from 0.98 lakh to 1.45 lakh. Because of year-to-year fluctuations in enrolment, neither the decline nor the increases were steady. The six-year frame of the enrolment data drawn from DISE also makes it possible to track the grade-to-grade transitions of different student cohorts from 2001-02 through successive years. Starting with a district-wide student strength of 1.84 lakh, the Class 1 students who had enrolled in 2000-01 had shrunk to 34 percent of their initial strength by the time they transited to Class 2 in 2001-02. After further shrinkage during 2002-03, 85 percent of the remaining students transited from Class 2 to Class 3, and 89 percent of the Class 3 group moved on to Class 4 in 2003-04. Using the same interpretations, the grade-to-grade transitions of other student cohorts studying in other classes in Uttar Dinajpur during the period can also be identified from the barchart. In spite of occasional variations in the percentage rates, the usual pattern identifiable in all years was for total enrolments to slump sharply during the Class 1-2 transition and again during the Class 5-6 transition when a large number of the students who had initially enrolled dropped out of school. As a consequence of these sharp dips in enrolments, the huge mass of students who enrolled in Class 1 every year in Uttar Dinajpur was moulded and downsized to fit the limited intake of the upper primary system.



Naturally, when expressed as pure percentages, the transitions during the intervening periods, as well as the transition rates from primary to the upper primary system and from Class 4-5 show continuous improvement because of the declining base of students left within the school system. However, these spot rates also mask the huge dropouts that occur during the Class 1-2 and Class 5-6 transitions in Uttar Dinajpur because of the insufficiency of educational infrastructure to handle them. Within such limitations, the year-wise transition rates from the primary to the upper primary stage have gradually increased from 38 percent to just below 50 percent. More strikingly, the transition rates for girls have shown a higher order of increase, indicating that more girl students are being retained within the elementary education system in Uttar Dinajpur, despite the low female literacy achievements that have previously characterised the district. A curious feature in the gender-specific Class 4-5 transition rates for boys is their very high value, exceeding 100 percent in most years. Although the reasons for this are more difficult to assign specifically, the clear implication is that more boys are entering the Class 5 stage at upper primary schools in Uttar Dinajpur than have passed from the Class 4 stage at primary schools. It is evident though that this phenomenon is related to net migration into the district. As the disaggregated data for class-wise enrolments in 2006 show, the surplus of Class 5 enrolments over Class 4 enrolments is high in the two municipal towns of Raiganj and Islampur. Since the Class 4-5 transition rates for girls lag behind the rates for boys for the district as a whole, it is also possible that the rural blocks - particularly those under Raiganj SD which record relatively higher rates of transition, may be receiving excess boys at their schools as well.

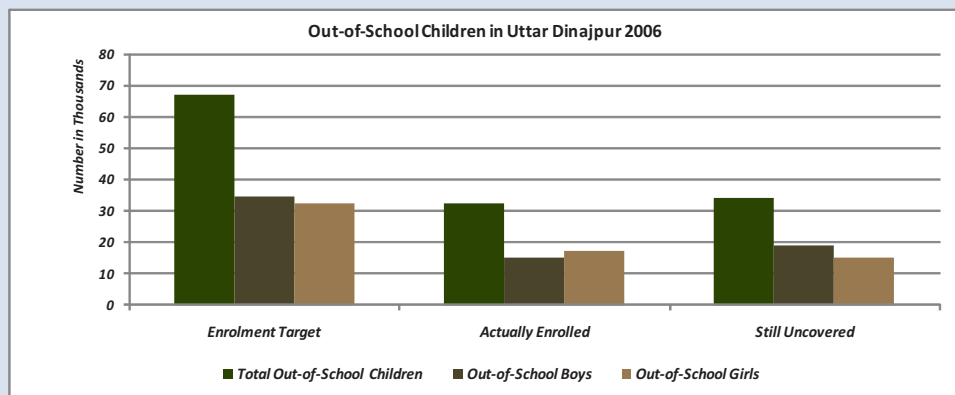
**Table: School Dropout & Completion Rates at the Primary Stage in Uttar Dinajpur, 2006**

CD Block/Town	% Dropout Rate at Primary Stage All Students	% Dropout Rate at Primary Stage Boys	% Dropout Rate at Primary Stage Girls	% Completion Rate at Primary Stage All Students	% Completion Rate at Primary Stage Boys	% Completion Rate at Primary Stage Girls
Chopra	63.5	63.3	63.4	25.4	23.8	24.7
Islampur	37.1	37.8	37.4	24.9	22.4	23.8
Goalpokhar-1	44.4	43.8	44.1	33.3	33.9	33.6
Goalpokhar-2	53.4	53.0	53.2	30.2	28.6	29.5
Karandighi	20.6	20.6	20.6	43.2	45.1	44.0
Raiganj	17.0	15.8	16.4	45.8	46.3	46.1
Hemtabad	16.9	14.0	15.5	38.3	38.5	38.4
Kaliaganj	22.5	22.3	22.4	24.0	25.2	24.6
Itahar	29.3	28.7	29.0	60.6	60.7	60.6
Islampur M	40.0	37.4	38.7	46.1	49.3	47.6
Dalkhola M	17.5	18.0	17.7	56.6	56.9	56.7
Raiganj M	27.5	24.4	26.0	44.6	50.9	47.7
Kaliaganj M	20.8	15.8	18.4	48.4	50.7	49.5
<b>Uttar Dinajpur DT</b>	<b>35.2</b>	<b>34.2</b>	<b>34.8</b>	<b>37.3</b>	<b>37.6</b>	<b>37.5</b>



A survey covering the attendance registers of 1288 schools was conducted under the Sarva Siksha Abhiyan in Uttar Dinajpur in 2005-06, in order to estimate the dropout rates in primary education. The resulting block-wise dropout rates shown in the table and the associated bar charts bear out the observations earlier made in the context of grade-to-grade transitions within primary education. For Uttar Dinajpur as a whole, the dropout at the primary stage was estimated at 35 percent, with no distinction between boys and girls. While Chopra and Goalpokhar-2 reported alarmingly high dropout rates exceeding 50 percent, the dropouts for the other Islampur SD blocks too greatly exceeded those in the Raiganj SD blocks. Inevitably, completion rates in the district were exceedingly low at just over 37 percent, with nearly twice as many children dropping out of primary school compared to those who went on to complete their primary education. Completion rates were lowest in Islampur block at 22 percent for boys and 24 percent for girls, and were

only marginally higher in Chopra which records substantially high primary enrolment. Even in Goalpokhar-1 and Goalpokhar-2 blocks, where primary enrolment is limited, completion rates still remained low. While the contiguous blocks of Karandighi and Raiganj recorded better completion rates of over 40 percent, placing them on par with the urban municipalities, the primary completion rate at Itahar was truly impressive, at well over 60 percent.



According to the child census carried out under the Bhartikaran Karmasuchi of SSM, 66,932 children in the 5-14 age-group in Uttar Dinajpur were out of school in 2006. The Islampur SD blocks accounted for a larger proportion of such children, with Karandighi having the largest number, followed by Goalpokhar-1, Islampur and Chopra. In contrast, Itahar was the only block in Raiganj SD where the problem still occurred significantly, while apart from the municipal areas, Hemtabad had the lowest number of out of school children in Uttar Dinajpur. While the special enrolment drive under the Bhartikaran Karmasuchi of SSM succeeded in subsequently enrolling around half of these children, it is estimated that 34,315 children are still out of school in the district.

## Non-Formal Education [NFE] in Uttar Dinajpur

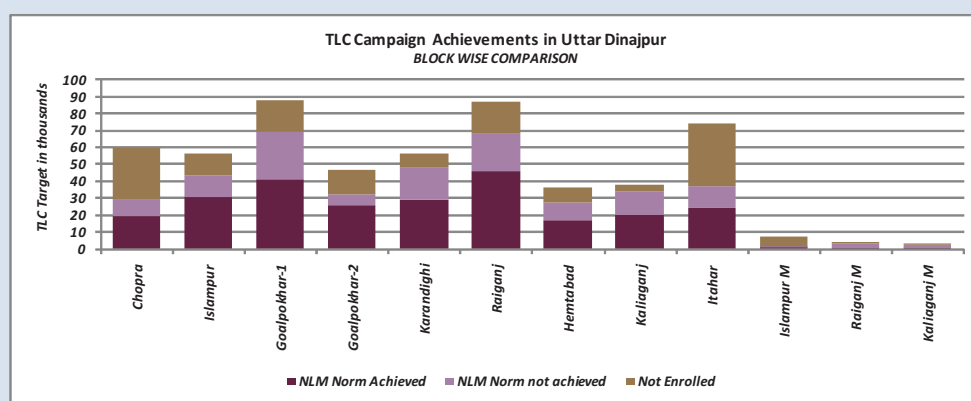
Largescale mass literacy campaigns were initiated in India in 1989 under the overall agency of the National Literacy Mission [NLM], to cope with the mounting burden of adult illiteracy. Mass literacy activities in Uttar Dinajpur got underway in 1995-96 after a prior proposal for launching TLC programmes in the district had obtained sanction from NLM. A fresh survey conducted in 1998 estimated the total number of illiterates to be targeted through TLC at 5.6 lakh. Success rates were quite satisfactory at the inception phase. Around 4.0 lakh illiterate persons or 71 percent of the estimated TLC target were initially enrolled as learners under the literacy programmes, among whom 2.6 lakh learners (65%) achieved the NLM norm. With close to half of them being females, gender parity in literacy achievements was also well maintained. Goalpokhar-1 and Raiganj had the largest number of targeted illiterates, followed by Itahar and Chopra. However, while the ratio of learners enrolled to TLC block-targets was relatively high in the first two blocks, a considerable mass of illiterate persons in Chopra and Itahar could not be drawn into the literacy campaign. Also in most blocks where TLC enrolment was high, the number of learners who were unable to reach the NLM norm was also substantial.

The principal difficulty faced during the TLC phase in Uttar Dinajpur was in targeting illiterates in an even manner across the district. Among the rural segment who constituted over 97 percent of the TLC target in Uttar Dinajpur, the ratio of enrolment was 50 percent or lower in Itahar and Chopra which together accounted for nearly a quarter of the estimated illiterates in the district, but surpassed 87 percent in Kaliaganj and Karandighi where the numbers of illiterates involved were fewer. Low average enrolment rates among



the targeted urban illiterates were mainly on account of only 22 percent enrolment in Islampur municipality. For the Islampur SD blocks which collectively accounted for well over half the combined rural and urban target for the district, enrolment rates were around 73 percent. In contrast, in the Raiganj SD blocks where the rural illiterates made up less than 43 percent of the combined rural and urban TLC target, the enrolment achieved was lower at 72 percent.

Despite the large numbers of learners enrolled under TLC in Uttar Dinajpur, the rate of achievement of NLM norms was poor, at around 46 percent and was much lower at less than 25 percent in urban areas. Less than a third of the TLC learners enrolled in Chopra and Itahar were able to reach the norm. The attainment of the norm varied between 55 percent for male learners and 45 percent for female learners in the district, with the highest gender deficits in achievement being recorded among rural learners in Goalpokhar-1, followed sequentially by the three Raiganj SD blocks of Kaliaganj, Raiganj and Hemtabad. Elsewhere through the Islampur SD blocks, there was more parity in gender achievements, compared to Raiganj SD. The basic point of concern for the district that has carried over from the conclusion of the TLC phase is that over 3 lakh persons (1.6 lakh who remained unenrolled plus 1.4 lakh who failed to achieve NLM literacy norms) still remain illiterate or inadequately literate at the conclusion of the mass campaign in Uttar Dinajpur. The means to reach them are very few at present.



**Table: Achievements under TLC/PLP Mass Literacy Campaigns in Uttar Dinajpur uptil, 2006**

CD Block/Town	TLC Enrolment Target	Actual TLC Enrolment	Total Learners achieving NLM Norm	Male Learners achieving NLM Norm	Female Learners achieving NLM Norm	Age-wise Norm Achieved 9-14 years	Age-wise Norm Achieved 15+ years	PLP Enrolment Target 15+ years	Total 15+ Learners enrolled under PLP	Male 15+ Learners enrolled under PLP	Female 15+ Learners enrolled under PLP
Chopra	59720	29210	19094	9514	9580	3980	15114	15114	14304	7868	6436
Islampur	56667	43711	30763	16607	14156	6208	24555	24555	22440	11976	10464
Goalpokhar-1	87595	69283	41011	21879	19132	11973	29038	29038	27453	14527	12926
Goalpokhar-2	46785	32180	25984	15371	10613	6480	19504	19504	16982	9156	7826
Karandighi	56129	48600	29192	15998	13194	6723	22469	22469	20916	10840	10076
Raiganj	87315	68685	45889	25891	19998	8270	37619	37619	34655	17635	17020
Hemtabad	36550	27365	17162	9599	7563	3500	13662	13662	12564	6463	6101

Table: Achievements under TLC/PLP Mass Literacy Campaigns in Uttar Dinajpur upto, 2006 (Contd.)

CD Block/Town	TLC Enrolment Target	Actual TLC Enrolment	Total Learners achieving NLM Norm	Male Learners achieving NLM Norm	Female Learners achieving NLM Norm	Age-wise Norm Achieved 9-14 years	Age-wise Norm Achieved 15+ years	PLP Enrolment Target 15+ years	Total 15+ Learners enrolled under PLP	Male 15+ Learners enrolled under PLP	Female 15+ Learners enrolled under PLP
Kaliaganj	37944	33915	20415	11575	8840	2820	17595	17595	16686	9005	7681
Itahar	73899	36944	24073	12688	11385	5433	18640	18640	17009	9157	7852
<i>U Dinajpur Rural</i>	<i>542604</i>	<i>389893</i>	<i>253583</i>	<i>139122</i>	<i>114461</i>	<i>55387</i>	<i>198196</i>	<i>198196</i>	<i>183009</i>	<i>96627</i>	<i>86382</i>
Islampur M	7108	1592	1446	632	814	292	1154	1154	568	267	301
Raiganj M	4373	2897	1081	343	738	349	732	732	732	347	385
Kaliaganj M	3333	2721	1133	518	615	565	568	568	1154	345	809
<i>U Dinajpur Urban</i>	<i>14814</i>	<i>7210</i>	<i>3660</i>	<i>1493</i>	<i>2167</i>	<i>1206</i>	<i>2454</i>	<i>2454</i>	<i>2454</i>	<i>959</i>	<i>1495</i>
<b>Uttar Dinajpur DT</b>	<b>557418</b>	<b>397103</b>	<b>257243</b>	<b>140615</b>	<b>116628</b>	<b>56593</b>	<b>200650</b>	<b>200650</b>	<b>185463</b>	<b>97586</b>	<b>87877</b>

Source: Zilla Saksharata Samiti, Uttar Dinajpur

Adult learners in the 15+ age-group who had attained the NLM literacy norm during the first phase of the TLC programme in Uttar Dinajpur were brought under the subsequent Post-Literacy Campaign [PLC] to sustain their retention of literacy skills. Thus after excluding norm-achievers in the age group 5-14 years, around 1.96 lakh neo-literates were enrolled under PLC programmes against the target enrolment of 2 lakh. When compared to the prior shortfalls in realising TLC enrolment targets, this was a notable success in itself. However, this also testified to the strong self-motivation on the part of adult learners who had previously overcome personal literacy deficits during the TLC campaign in Uttar Dinajpur, to utilise the further learning opportunities provided by PLC programmes. The PLP phase thus targeted approximately half the learners who had enrolled initially during the TLC phase. However, in Goalpokhar-1 and Karandighi, the target proportion varied between 42 and 46 percent, and reached 61 percent in Goalpokhar-2. With much lower numbers involved, the enrolment rates were significantly better at over 92 percent for the district. In proportionate terms however, many more male learners compared to females enrolled in rural areas, while the opposite was invariably true in urban areas.

Subsequently, nearly two-thirds of the adult learners enrolled under PLC in Uttar Dinajpur or 1.13 lakh persons overall have attained the NLM post-literacy norms. Thus the district has now entered the third phase of the mass literacy campaign, comprising continuing education. At this stage, the traditional concepts of 'learning to read' are reversed in order to lay new emphasis on 'reading to learn'. With the principal objective of the Continuing Education Programme [CEP] under NLM thus being to empower the neo-literate population by encouraging active use of its literacy skills for acquisition of knowledge and improvement of livelihoods and living standards, the sphere of the CEP activities is conceptually much broader than either the TLC or PLP. Under CEP, 899 Continuing Education Centres [CECs] and 65 Nodal CECs [NCECs] have been established in the district, with their blockwise distribution as indicated below.

**Table: Continuing Education Centres [CECs] in Uttar Dinajpur, 2006**

CD Block/Town	2001 Population	Total Gram Panchayats	Inhabited Villages	Total Gram Sansads/ Municipal Wards	Continuing Education Centres [CECs]	Nodal Continuing Education Centres [NCECs]	Total Centres established under CEP
Chopra	223022	8	115	132	88	6	94
Islampur	241951	13	101	155	86	7	93
Goalpokhar-1	245430	14	145	181	97	7	104
Goalpokhar-2	226472	11	169	169	87	6	93
Karandighi	290081	14	211	187	113	9	122
Raiganj	362056	14	220	224	142	10	152
Hemtabad	118822	5	114	80	47	3	50
Kaliaganj	190019	8	191	133	74	6	80
Itahar	249541	12	211	161	98	7	105
<i>Uttar Dinajpur Rural</i>	<i>2147394</i>	<i>99</i>	<i>1477</i>	<i>1422</i>	<i>832</i>	<i>61</i>	<i>893</i>
Islampur M	52738	-	-	14	13	1	14
Raiganj M	165212	-	-	26	25	1	26
Kaliaganj M	47650	-	-	17	16	1	17
Dalkhola M	13895	-	-	14	13	1	14
<i>Uttar Dinajpur Urban</i>	<i>279495</i>	<i>-</i>	<i>-</i>	<i>71</i>	<i>67</i>	<i>4</i>	<i>71</i>
<b>Uttar Dinajpur DT</b>	<b>2426889</b>	<b>99</b>	<b>1477</b>	<b>1493</b>	<b>899</b>	<b>65</b>	<b>964</b>

Source: Zilla Saksharata Samiti, Uttar Dinajpur

Considering the relative educational backwardness of Uttar Dinajpur and the high levels of illiteracy recorded in the district in the recent past, the achievements recorded under TLC are nevertheless commendable. The foundations for such success were laid by the mission mode under which the mass literacy campaigns were conducted, with full participation and team-work between the administration and the PRI institutions, accompanied by political mobilisation across the length of the district. The involvement of local educated unemployed youths in the campaign and their voluntary participation as trainers has also been a noteworthy feature, proving that active community participation has been a strong factor in TLC success.

### **Sarva Siksha Mission Activities in Uttar Dinajpur**

Working on the principle that highly motivated teachers who are drawn from the same sociocultural milieu as the rural learners can make a vital contribution to teaching and learning processes, the Sishu Siksha Karmasuchi commenced in 1997 as an alternative education programme coordinated by the Department of Panchayats and Rural Development [PIRD] and wholly funded by the Government of West Bengal. Another novelty within the programme was the close involvement of the local Panchayati Raj institutions [PRIs] as supervisory and monitoring agencies, during practical implementation of the alternative rural education programme which initially envisaged the establishment of Sishu Siksha Kendras [SSKs] or primary

learning centres for out-of-school children across the state in areas where there was low educational achievement. From October 2002, the programme was incorporated for funding support within the Centrally-sponsored DPEP Sarva Siksha Abhiyan under the national programme for the universalisation of elementary education [UEE], and is monitored under the Paschim Banga Rajya Sarva Siksha Mission [PBRSSM], with the name providing some indication of the independent origins of the West Bengal programme. Later, under the separate Madhyamik Siksha Karmasuchi, coverage was extended to upper primary education through the medium of Madhyamik Siksha Kendras [MSKs] in rural areas in West Bengal, where a large number of children are unable to pursue formal education after the Class 4 stage because of the general paucity of upper primary schools. SSM thus provides alternative means to achieve the target of Education for All [EFA] which seeks to guarantee universal access to elementary education for eight years to all children in India, and has become an important education intervention in Uttar Dinajpur, in view of persisting weaknesses within the formal delivery of elementary education to rural areas in the district.

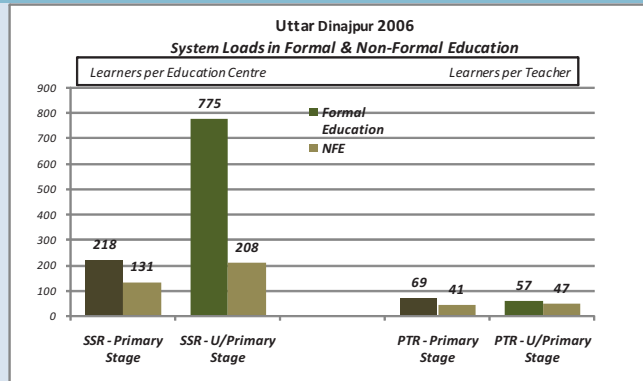
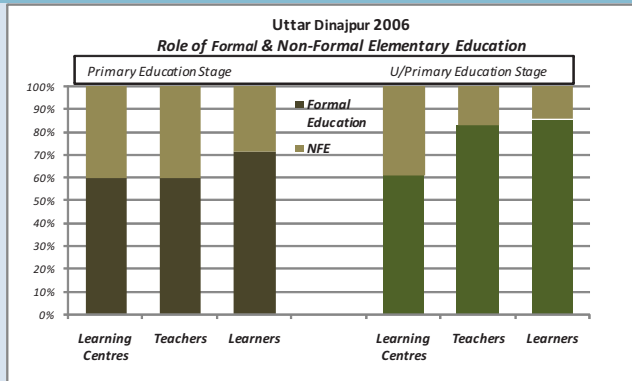
Relevant information from the DISE database on the implementation of SSM in Uttar Dinajpur district is furnished in the associated table. The barcharts facilitate comparison between indicators for the formal system and the non-formal education [NFE] system in Uttar Dinajpur at the primary and upper primary stages. The size of the intervention in Uttar Dinajpur may be gauged from the fact that SSM now accounts for around 39 percent of the formal and NFE primary learning centres and 28 percent of the upper primary learning centres in the district. Over 1.19 lakh primary learners and 0.22 lakh upper primary learners are presently enrolled at SSKs and MSKs in Uttar Dinajpur, with the largest number being enrolled in Islampur block. The SSKs and MSKs also engage around 29 percent of the teachers involved in the delivery of elementary education, and have an enrolment share of 16 percent in the total enrolment of students at the elementary stage of education.

**Table: Sishu Siksha Kendras [SSKs] & Madhyamik Siksha Kendras [MSKs] in Uttar Dinajpur, 2006**

### RATIO ANALYSIS

CD Block	Total SSKs	Total SSK Teachers	Total SSK Learners	Learners per SSK	Learners per SSK Teacher	Total MSKs	Total MSK Teachers	Total MSK Learners	Learners per MSK	Learners per MSK Teacher
Chopra	99	247	12244	124	49.6	13	52	3811	293	73.3
Islampur	113	417	18918	167	45.4	16	77	2907	182	37.8
Goalpokhar-1	116	395	17966	155	45.5	9	52	2156	240	41.5
Goalpokhar-2	64	236	11491	180	48.7	13	48	2548	196	53.1
Karandighi	128	388	18247	143	47.0	13	49	2156	166	44.0
Raiganj	137	412	14529	106	35.3	15	47	2840	189	60.4
Hemtabad	68	225	6704	99	29.8	5	25	913	183	36.5
Kaliaganj	85	243	7721	91	31.8	8	46	1698	212	36.9
Itahar	97	327	10724	111	32.8	12	67	2588	216	38.6
<b>Uttar Dinajpur DT</b>	<b>907</b>	<b>2890</b>	<b>118544</b>	<b>131</b>	<b>41.0</b>	<b>104</b>	<b>463</b>	<b>21617</b>	<b>208</b>	<b>46.7</b>

Source: DISE 2006-07, Uttar Dinajpur



The principal achievement of SSKs and MSKs in Uttar Dinajpur is in bringing down the student loads at education facilities in the district to reasonable levels. Thus the student-school ratio [SSR], i.e. the ratio of learners per NFE learning centre amounts to 131 per SSK, against 218 for each formal primary school. Similarly, the SSR for MSKs is 208 is much lower than the SSR of 775 at upper primary schools in Uttar Dinajpur. With more teachers being appointed at SSKs and MSKs because of lower salary costs, PTRs have declined to 41 per teacher at the SSKs against 69 per teacher at formal primary schools, and from 57 at upper primary schools to 47 at MSKs. However, while these ratios hold good for the district as whole, there is still considerable variation in SSRs and PTRs between the different Uttar Dinajpur blocks even under NFE, with the Islampur SD blocks faring poorly in comparison the Raiganj SD blocks. This raises serious questions about the ability of SSM to overcome the existing educational disparities between blocks and to equalise educational opportunities across the district.

In the light of the deep-rooted educational backwardness that exists within Uttar Dinajpur, several pros and cons therefore attach to the NFE system and on how deep the reliance of the district on SSM should actually be. Unlike other West Bengal districts where SSM is being implemented mainly as a means of reaching out-of-school learners, SSM in Uttar Dinajpur has had to substitute for the existing structural weaknesses within the formal school system, which is why the scale of the NFE intervention has grown to such huge proportions. At best, the SSKs and MSKs are temporary learning centres, which cannot substitute for the absolute lack of formal schools and teachers in the district. Teachers who serve at SSKs and MSKs have qualifications that are identical to those of full-time teachers serving at formal educational institutions and also perform the same duties, but receive a fraction of their salaries. This makes educational administrators even more reluctant to make appointments to regular teaching posts. Hence, in the long run, over-reliance on the NFE system in Uttar Dinajpur is likely to create a permanent gap in the infrastructure and intake capacity of the formal elementary education system, ultimately preventing Uttar Dinajpur from reaching the educational standards of the other forward West Bengal districts.

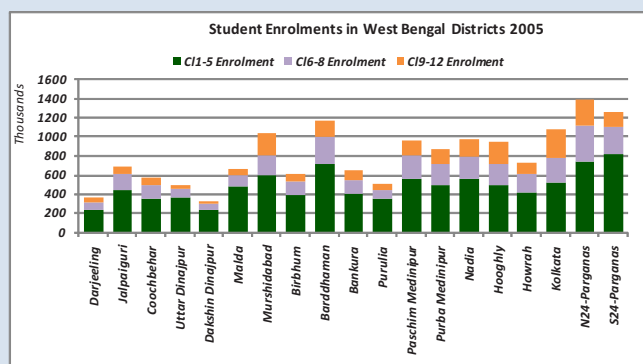
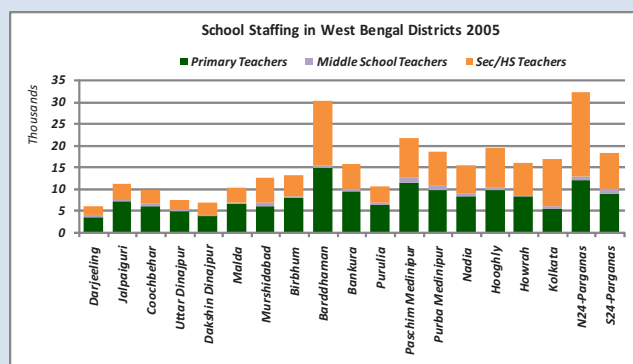
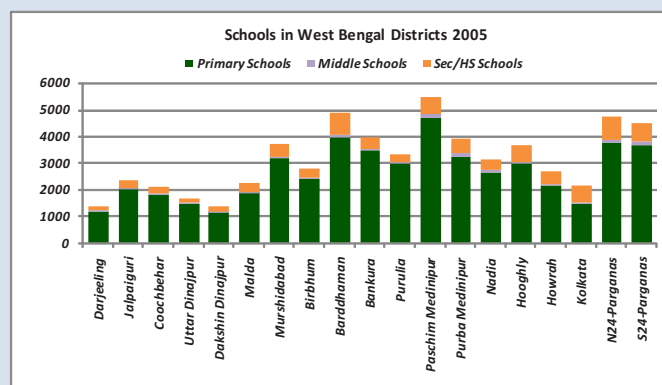
Citing evidence from a comparison between the districts of Uttar Dinajpur and Medinipur, a recent World Bank review of the Sarva Siksha Abhiyan [SSA] in educationally backward districts across India has therefore questioned whether SSA has been able to reallocate educational resources in a more equitable manner. On the principle of reducing educational disparities and restoring equity, the Islampur SD blocks should have been given preferential treatment and should in fact have been allotted a much larger proportion of the resources created within SSM. This has obviously not happened in Uttar Dinajpur. Instead, even within the NFE system, the performance indicators continue to lag behind in the Islampur SD blocks, while the Raiganj SD blocks continue to maintain their advantage. A new allotment criterion suggested in the World

Bank study stresses the reckoning of per child allocations [PCAs] while allotting SSA funds within a state. On this count, the Islampur SD blocks should be receiving around two-thirds of the SSM allotments, given their higher number of NFE learners. Instead, in per capita terms, NFE learners in the Raiganj SD blocks receive 150-160 percent more investment compared to their Islampur SD counterparts, because of their fewer numbers.

Pointing out the inherent implications of having SSKs and MSKs as more or less permanent educational centres in rural hinterlands, which imparted a quality of education that was different from the mainstream elementary education delivered through formal schools, the Third Joint Review Mission on SSA activities in West Bengal in 2006 had encouraged the Government to evolve a policy of upgrading SSKs and MSKs where more than 100 learners were enrolled into full-fledged primary and upper primary schools. Given their current SSRs, this would apply to most of the SSKs in the Islampur SD blocks being eligible for such upgradation, on which the State Government has already instituted a policy from 2007.

## Persisting Educational Gaps in Uttar Dinajpur District

The preceding review of the current status of education in Uttar Dinajpur district has identified several systemic problems, such as the shortage of adequate educational infrastructure and teaching staff, all of which tell on the quality of education while seriously impeding the educational progress of the district. The low level of educational and literacy achievement among socially backward groups like the SCs, STs and Muslims also needs to be especially noted, since these community groups collectively compose over 80 percent of the Uttar Dinajpur population and close to 90 percent of the rural population, Therefore the burden of infrastructural deficits and educational backwardness is borne primarily by them. Educational disparities in Uttar Dinajpur also have a regional face, with the northern blocks of Islampur subdivision lagging far behind the rest of the district both in terms of education and literacy achievements.



Educational backwardness in this region is rooted partially in its administrative history as well as in its cultural and linguistic distinctiveness. The five blocks transferred from the state of Bihar to form a new subdivision in West Dinajpur in 1959 had until then been part of a different state education system, which had followed a different course of development. The Kishanganj region in the predecessor district of Purnea of which they were formerly part, is still characterised by a low overall literacy rate of 31 percent, a female literacy rate of 18.6 percent, and a gross enrolment ratio [GER] of 84.8 percent at the primary stage in 2006-07, against which the corresponding rates for Uttar Dinajpur as a whole are a literacy rate of 48 percent, female literacy of 36 percent and primary GER of 138 percent. Like Kishanganj which is now a full-fledged Bihar district, Islampur SD too has a largely rural profile, a large Muslim population and deep concentration of rural poverty. In contrast, the educational system that serves Raiganj underwent early development under the district school system of undivided Dinajpur and maintained its lead over the Islampur region between 1959-91, during which the Islampur region formed the most backward subdivision of post-Partition West Dinajpur.

Bifurcation of West Dinajpur and the formation of Uttar Dinajpur and Dakshin Dinajpur as two separate districts was undertaken with the primary intention of reducing the regional disparities between regions like Islampur SD and Raiganj SD in the former and Gangarampur SD and Balurghat SD in the latter district. Obviously, in the case of Uttar Dinajpur, this reduction has not occurred since then, after 18 years of its existence as a separate district. Other than the establishment of primary schools in previously unserved areas, no visible move towards substantial upgradation of the institutional framework and staffing patterns for public school education in the Islampur blocks is observed in the district, especially at the post-primary stage. Instead, the Raiganj SD blocks have extended their lead over Islampur SD blocks in terms of both literacy and enrolments, because of better access to educational institutions and infrastructure.

Persisting regional disparities of this nature are largely responsible for making Uttar Dinajpur the least literate district in West Bengal. Thus, a major challenge facing the district today relates to the improvement of educational attainments of the weaker social sections and women, especially among the Muslim community which has a dominant presence in the Islampur SD region. Yet although a huge gulf separates the Muslim literacy rate of 36 percent in Uttar Dinajpur from the Muslim literacy rate of 58 percent achieved by West Bengal as a whole, the institutional channels for uplifting the educational attainments of the Muslim community in the district are still very limited. There are only 13 Urdu medium primary schools and 2 Hindi medium primary schools in Islampur SD, in a region where Urdu and Hindi are widely spoken as a first language because of the prior transfer of this territory to West Bengal from Bihar. Hence, the recent proliferation of unaided madrasahs in Islampur SD partially fills up for the overall dearth of vernacular educational institutions in the Urdu and Hindi medium, meeting the educational needs of the Muslim community without regulation from the state. Greater involvement of the State educational authorities in Muslim education is therefore urgently needed to achieve equitable educational advancement in Uttar Dinajpur.

These existing regional gaps can only be filled if there is a major expansion in educational infrastructure in Islampur SD. While improvements in the regional delivery of education must encompass the expansion of post-primary education, the problem of high primary dropouts must also be tackled through adequate provision of school amenities and adequate deployment of teachers to rural schools, and a special drive to improve the retention of girls within the educational system. The effort at improving educational standards should be targeted especially to blocks like Goalpokhar-1 and Goalpokhar-2, where educational attainments are currently the lowest. At the same time, major expansion of the limited opportunities for collegiate and technical education in the district should be made by locating more institutions in Islampur SD which is

well connected by highway as well as rail, rather than locating more and more institutions in Raiganj, thereby magnifying intra-district disparities and limiting educational opportunities largely to the urban community and to those well-off rural sections who can afford to translocate or commute to the city.

### Educational Gaps and Projected Needs of District School System

In addition to intra-district disparities which restrict the regional spread of education and literacy in Uttar Dinajpur, the district is also placed adversely in relation to other West Bengal districts in terms of inter-district disparities within the public education system. As seen from the associated barcharts, there has been vast proliferation of primary schools in all West Bengal districts, where these now form the bedrock for the public education system. Compared to Uttar Dinajpur, however, most other West Bengal districts are able to offer better opportunities for educational enrolment and progression because they have better balanced networks of primary, post-primary and secondary educational institutions. Even Purulia, which is of similar size to Uttar Dinajpur in terms of population and is backward in several other respects, has a far superior educational infrastructure compared to that in Uttar Dinajpur. The southern districts located around Kolkata have the best infrastructure for post-primary and secondary education. Accordingly, they offer the best educational opportunities in West Bengal.

Unlike Uttar Dinajpur with its limited educational network, teacher deployments are also better in the other West Bengal districts where staffing levels are also better balanced between the primary, upper primary as well as the secondary & HS stages. Clearly, while more state resources have been committed in improving the educational system in the other districts of West Bengal, the public education system in Uttar Dinajpur continues to languish because of insufficient resource commitments by the state. Thus, the scale of public investment required for removing educational disparities within the district has not been forthcoming so far, resulting in strong divergence in educational opportunities between Uttar Dinajpur and the rest of the state.

**Table: Infrastructural & Staffing Requirements of Uttar Dinajpur Primary Schools**

CD Block	Existing Primary Schools	Existing Primary Teachers	Existing Primary Students	Existing Primary Classrooms	Additional Primary Teachers [1:40 Norm]	Additional Primary Classrooms [OB Norm]
Chopra	137	405	39710	374	588	37
Islampur	175	564	42586	457	501	68
Goalpokhar-1	112	285	27837	273	411	63
Goalpokhar-2	119	307	31603	278	483	79
Karandighi	146	448	38964	402	526	36
Raiganj	298	1049	48098	779	153	115
Hemtabad	85	301	15564	218	88	37
Kaliaganj	187	689	28861	486	33	75
Itahar	171	573	30849	468	198	45
<b>Uttar Dinajpur DT</b>	<b>1430</b>	<b>4621</b>	<b>304072</b>	<b>3735</b>	<b>2981</b>	<b>555</b>

Source: Estimated from DISE 2004, Uttar Dinajpur



The combined impact of this divergence is seen in the stage-wise patterns of enrolment in the different West Bengal districts. Compared to base-level enrolment at the primary stage, all other West Bengal districts other than Uttar Dinajpur show better progression of students to the post-primary and secondary stage. Even Murshidabad and Malda, with their large Muslim population segments, do not show much evidence of the kind of educational backwardness still seen in Uttar Dinajpur. However, it is also evident that the educational backwardness of Uttar Dinajpur is strongly related to the existing deficiencies of educational institutions and teachers, rather than to conservatism among its rural communities. Since the earlier analysis has already shown very high primary enrolments in the Muslim dominated blocks of the district, it is clear that educational problems like high dropout rates in Uttar Dinajpur are related to the lack of suitable and equitable opportunities for educational progression among all regions and communities.

**Table: Infrastructural & Staffing Requirements of Uttar Dinajpur Upper Primary Schools**

CD Block	Existing U/Primary Schools	Existing U/Primary Teachers	Existing U/Primary Students	Existing U/Primary Classrooms	Additional U/Primary Teachers [1:40 Norm]	Additional U/Primary Classrooms [1:40 Norm]	Additional* U/Primary Schools [SSA Norm]
Chopra	17	243	15436	175	143	211	52
Islampur	22	314	13536	235	24	103	66
Goalpokhar-1	14	137	8353	112	72	97	42
Goalpokhar-2	18	206	12270	204	101	103	42
Karandighi	21	286	17507	210	152	228	52
Raiganj	42	699	30775	520	70	249	107
Hemtabad	14	216	11051	150	60	126	29
Kaliaganj	23	387	17926	277	61	171	71
Itahar	21	261	16328	233	147	175	65
<b>Uttar Dinajpur DT</b>	<b>192</b>	<b>2749</b>	<b>143182</b>	<b>2116</b>	<b>831</b>	<b>1464</b>	<b>523</b>

Source: Estimated from DISE 2004, Uttar Dinajpur

For universalising elementary education in Uttar Dinajpur district, several difficult choices have to be made. As a low literacy district, Uttar Dinajpur cannot afford to restrain the new enthusiasm of the parents who now enrol their children at the crowded rural schools in such large numbers today. However, a considerable distance still has to be bridged before all elementary school children can be provided quality education, since the formal elementary school system is seriously short of educational institutions, classrooms as well as teachers. Under current national PTR norms of 40 students per primary teacher and the Operation Blackboard [OB] classroom norms, Uttar Dinajpur has a 15 percent deficiency in the required number of classrooms and 35 percent deficiency in the required strength of teaching staff. To fill these persisting infrastructural gaps at the primary stage, 555 new classrooms and 2981 new teaching appointments are currently required by the district, even at the present level of primary enrolment.

The existing educational gaps are even more critical at the post-primary stage, with huge existing shortfalls particularly in the number of institutions and teachers. To universalise educational opportunities among all current entrants into the primary school system and to provide them with quality education, 1464 classrooms, 831 upper primary teaching appointments and 523 new upper primary institutions are urgently required in the rural areas of the district. While a substantial increase in the commitment of funds for educational development in the district is obviously called for, strong administrative steps also need to be taken to prioritise the flow of such resources to the Islampur SD blocks, which currently experience the most severe shortfalls. Thus a conscious effort must be made to reduce educational disparities within the district, and to provide equitable educational opportunities to all children in Uttar Dinajpur.



## Chapter 3

### HEALTHCARE SITUATION IN UTTAR DINAJPUR

#### Health Indicators in Uttar Dinajpur

In the HDI computations for the West Bengal Human Development Report [WBHDR] 2004, the combined region comprising erstwhile West Dinajpur and spanning the modern districts of Uttar & Dakshin Dinajpur ranked 13th among 17 West Bengal regional units (15 modern districts and undivided West Dinajpur and Medinipur). Since overall health attainments in the combined region were higher than educational and income attainments, the rank of West Dinajpur in terms of the WBHDR health index improved to 11th, ahead of Malda, Coochbehar and Jalpaiguri districts in northern West Bengal and Birbhum, Murshidabad and Purulia districts in the southern region. Despite this apparently favourable regional ranking, Uttar Dinajpur has been a poor performer in terms of most standard health indicators. The District Level Household Survey on Reproductive & Child Health [DLHS-RCH] conducted between 2002-04 as a baseline for the National Rural Health Mission [NRHM] by the International Institute for Population Studies [IIPS], Mumbai, on behalf of the Ministry of Health & Family Welfare [MoHFW] ranked Uttar Dinajpur at the bottom of 18 West Bengal districts and at overall 443rd position among 591 Indian districts, in terms of the composite DLHS index based on 12 standard RCH attributes.

From recent State Health Department estimates, birth rates in Uttar Dinajpur were close to 33 per thousand population, against 18.8 per thousand population for West Bengal as a whole. Although these high birth rates were also reflected by the large population segment in the age-group 0-6 years, with third-order or higher-order births comprising more than half of all recorded births, only a fifth of all children completed the full course of immunisation with immunisation dropout levels touching 47 percent. As indicated by contraceptive prevalence rates [CPRs], more than half of the eligible couples in Uttar Dinajpur had adopted some explicit form of birth control, placing the district in the 235th position vis-à-vis other Indian districts but at the lowest position vis-à-vis the other districts in West Bengal. Prevalence of terminal family planning and sterilisation was still very low among women and rare among men. Although the rate of births to under-age mothers was lower than in most other West Bengal districts, IMR or infant mortality per thousand live births was still very high in Uttar Dinajpur district (at 66 vide District Health records, and 122 vide DLHS-RCH). Additional data from the third round of the National Family Health Survey [NFHS-3] and ICDS showed that 7 out of every 10 children in Uttar Dinajpur suffered from some form of malnutrition.

**Table: Relative Ranking of Uttar Dinajpur District in terms of RCH Indicators**

DLHS Indicator	Indicator Value	Indexed Value	Rank among 18 W Bengal Districts*	Rank among 591 Indian Districts
% Population (0-6) yrs	20.7	0.161	18	569
% Births of Order 3 +	56.3	0.275	18	423
% Births to Mothers aged < 20yrs	6.9	0.692	2	416
Under-5 yrs Mortality	122	0.642	14	417
% Female Literacy	37.2	0.241	17	494
% Households with Toilet Facilities	20.4	0.170	15	414
% Households with Electricity	14.5	0.118	17	537

**Table: Relative Ranking of Uttar Dinajpur District in terms of RCH Indicators (Contd.)**

DLHS Indicator	Indicator Value	Indexed Value	Rank among 18 W Bengal Districts*	Rank among 591 Indian Districts
% Mothers receiving at least 3 Antenatal Checkups	42.7	0.394	17	340
% Mothers receiving at least 2 TT Injections	70.8	0.681	18	319
% Children receiving Full Immunisation	20.2	0.205	18	476
% Immunisation Dropout	46.9	0.515	15	443
% Contraceptive Prevalence Rate	57.2	0.610	18	235
Composite DLHS Index		0.434	18	443

Source: IIPS, District Level Household Survey on Reproductive & Child Health [DLHS-RCH], 2004

\*including undivided Medinipur

Female literacy levels in Uttar Dinajpur were among the lowest in the state and 8 out of every 10 births still occurred within the precincts of the rural home. Even though the immunisation programme for mothers through the administration of 2 or more tetanus toxoid [TT] injections had reached more than 70 percent of the eligible women in the district, less than 43 percent of the expecting mothers had received 3 or more antenatal checkups [ANCs]. In terms of access to other household amenities that have a bearing on overall health status, the position of Uttar Dinajpur was poor. While four-fifths of its households had no access to toilet facilities, less than 1 in 5 had access to domestic electricity. Adverse indicators of this kind identify healthcare as being a key area of concern in Uttar Dinajpur district.

### Region-specific Health-care Problems

Although the DLHS indicators appear to reflect poor health performance in the district, many of the health problems currently faced by Uttar Dinajpur are actually rooted in the poor provisioning of general and public healthcare infrastructure and services against the backdrop of administrative reorganisation, migration, rapid population escalation and persisting communication difficulties. Because of the long process through which the modern district of Uttar Dinajpur has emerged from the old Dinajpur district in pre-Partition Bengal, most administrative and infrastructural facilities have had to be created virtually from scratch. Till 1992, present-day Uttar Dinajpur district comprised two subdivisions within the large erstwhile district of West Dinajpur, both located at considerable distance from the erstwhile district headquarters at Balurghat. Bifurcation of West Dinajpur entailed a total revamping of administrative and health services in the newly created district of Uttar Dinajpur, where health infrastructure at the new headquarters at Raiganj had to be upgraded from subdivisional to district level involving high outlays towards establishment and capital costs. In Islampur subdivision, which had been created after bifurcation of Kishanganj subdivision in the erstwhile district of Purnea in 1959 and the transfer of territory from Bihar to West Bengal, new subdivisional health facilities had to be synthesised from scratch, since the old subdivisional facilities were retained by Kishanganj. Thus, while both Islampur SD and Raiganj SD inherited a weak public health infrastructure as a legacy of their administrative past, the rapid escalation in their population as a consequence of continuous migration and natural increase has meant that the capacity of the public health system to deliver healthcare services efficiently has been constantly outstripped by the rising demands placed on the system. Serious shortfalls have thus emerged, in terms of staffing and physical facilities, which have not been adequately met by large injections of public funds that would be required to bring health services in Uttar Dinajpur at par with National Health Policy norms. Meanwhile, the decline in national public health spending as a

direct consequence of the economic reforms instituted in 1991 has resulted in an inevitable slowdown in the process of public healthcare provisioning, where an acceleration was actually required.

Since the gaps in the public health infrastructure in Uttar Dinajpur, which were already wide, have been widened further, the health system is unable to handle its present loads. The elongated geography of the district and the presence of long international and interstate borders to the east and west multiplies the problems of rural health service delivery, since the location of health subcentres [SHCs] and primary health centres [PHCs] cannot be efficiently planned on the usual radial principle. For the same reason, the infrastructure of rural roads is poor, increasing access difficulties for persons seeking healthcare. Most private and public health facilities located in the narrow 'chicken's neck' corridor area adjoining Bihar also have to provide healthcare services to interstate users from both sides of the border. Similar situations also recur along the new interdistrict boundary with Dakshin Dinajpur where a portion of the erstwhile Raiganj subdivision of the undivided West Dinajpur district has been transferred to Dakshin Dinajpur. Because of past dependency patterns and proximity, health facilities located within the newly reconstituted Raiganj SD also provide healthcare services to users from adjoining areas in Dakshin Dinajpur, as is most visible in the case of the State General Hospital at Kaliaganj. Such region-specific problems that are not encountered in most developed districts in India and West Bengal, contribute to the inadequate delivery of rural health services in Uttar Dinajpur district.

Other factors which are responsible for overall social and economic backwardness in the district also exercise an adverse influence on the general state of human development and public health, including the large numeric presence of socially underprivileged ethnocultural groups such as SCs, STs and Muslims within the district, among whom literacy achievements are poor and economic poverty is endemically very high. Low female literacy attainments also have a direct bearing on the adverse state of maternal and child health. Along with rapid population growth, high rates of inward and outward migration lead to population transience, multiplying the spread of communicable disease as well as major public health hazards like HIV/AIDS.

While the present human development and health situations in Uttar Dinajpur amalgamate all these institutional and infrastructural difficulties, they also reflect most of the generic problems affecting the performance of the public healthcare system in India, based upon the decline in public health investment, poor provisioning of rural healthcare and widening disparities between rural and urban health standards. Uttar Dinajpur nevertheless suffers much more than most other districts in this respect. The long process of administrative reorganisation that commenced in 1992 has imposed additional capital costs on the health system and is still far from complete. Many of the present weaknesses in the public healthcare system, which have thus been inherited from the past, place the district among the lowest ranked districts in the country. The physical provisioning and staffing of rural health institutions, particularly at SHC and PHC level is too poor for the referral system to work with any degree of efficiency. While this is also generally true for most other districts in India, the institutional gaps visible in Uttar Dinajpur are particularly severe, because of the region-specific reasons described above. Yet in spite of this huge inherited backlog, the present level of public health spending is too low to bring about the radical turnarounds in healthcare services that are required by the district. Although the Indian experiment with health sector reforms since 1991 has repeatedly shown that public expenditure gaps cannot be filled by private health investments, budget appropriations for the health sector have declined further when they should have increased. The overall human development impact on socially and economically backward population segments has been most adverse in districts like Uttar Dinajpur, which ranks among the most deprived districts in the country in health terms. Thus for a proper understanding of critical health issues to emerge, current health situations within the district have to be examined against the National Health Policy frame.

**BOX-CHART: Typical Structure of District Referral Healthcare System**

Health Services Provided	SHCs	PHCs	BPHCs/ Rural Hospitals	Sub- divisional/ State General Hospitals	District Hospital
<b><u>Preventive Healthcare Services</u></b>					
Immunisation of Mothers & Children	Yes	Yes	Yes	Yes*	Yes*
<b><u>Public Health Services</u></b>					
Prevention & Control of Communicable Diseases	Yes	Yes	Yes	-	-
<b><u>Family Welfare Services</u></b>					
Distribution of Oral Polio Vaccine [OPV], Iron & Folic Acid [IFA] Tablets etc	Yes	Yes	Yes	Yes*	Yes*
Ante-natal & Post-natal Services	Yes	Yes	Yes	Yes*	Yes*
IUD Insertions	Yes	Yes	Yes	Yes*	Yes*
Safe Deliveries	Yes	Yes	Yes	Yes*	Yes*
<b><u>Information, Education &amp; Communication [IEC] Services</u></b>					
Generation of Health Awareness	Yes	Yes	Yes	-	-
Epidemic Control	Yes	Yes	Yes	-	-
<b><u>Treatment &amp; Referral Services</u></b>					
Treatment of Minor Ailments	-	Yes	-	-	-
Indoor Odd-Hour Admissions prior to Referral	-	-	Yes	-	-
Indoor Admissions for Curative Treatment	-	-	-	Yes	Yes
Laboratory Services	-	-	Yes	Yes	Yes
Referral to PHCs	Yes	-	-	-	-
Referral to RH/BPHCs	-	Yes	-	-	-
Referral to SDH/SGH	-	-	Yes	-	-
Referral to DH	-	-	-	Yes	-
Referral to Regional Medical College & Hospital	-	-	-	-	Yes
<b><u>Administrative Services</u></b>					
Supervision & Monitoring	-	Yes	Yes	Yes	Yes

\*Through Post-Partum [PP] Units/Urban Family Welfare Centres [FWCs]

### Health Policy Framework

Public healthcare has been a major component of social welfare policy in India since Independence. Primary and secondary healthcare services at district level are now provided through a decentralised referral chain extending vertically from the health subcentres at the rural base to the district hospitals at the apex. The National Health Policy 1983 made universalisation of primary healthcare services, the cornerstone of public health policy during the Sixth Five-Year Plan. Since under constitutional provisions, primary healthcare is included in the State list, the onus for mobilising adequate resources to achieve the ambitious target of

*Health for All* by the year 2000 fell largely to the lot of the State Governments. However serious gaps had emerged within the healthcare system by the time the revised National Health Policy 2002 was announced, because of inadequate public investment in the health sector. Between 1990-1999, public health investment declined in proportionate terms from 1.3 percent to 0.9 percent of GDP [NHP 2002]. Although aggregate expenditure on healthcare in India rose cumulatively to 5.2 percent of GDP over the same period, less than a fifth of this was supported by public expenditure, and the remainder comprised out-of-pocket expenses borne personally by healthcare-seekers who were also compelled to depend increasingly on private healthcare providers. While total budgetary appropriations for the health sector in the Union Budget remained stationary at 1.3 percent, the severe revenue crunches encountered by all State Governments over the period since 1991 reduced healthcare appropriations in the State budgets from 7.0 percent to 5.5 percent. Consequently, since the targets set for expansion of the primary healthcare system could not be adequately met, the outreach and quality of public healthcare services fell significantly short of desired standards.

The principal problems that currently confront the public healthcare system in India include

- (i) persisting inadequacies in public health infrastructure
- (ii) overcrowding of medical facilities
- (iii) insufficient investment on outdoor medical facilities
- (iv) inadequate staffing by medical and paramedical personnel
- (v) shortages in medical stores and equipment, and
- (vi) inadequate provision of essential generic drugs

all of which have led to sharp deterioration in the quality of public healthcare services. For the country as a whole, the total institutional shortfall in healthcare facilities at all levels, in relation to population norms, was estimated at 16 percent in 2000. However, for community referral institutions or CHCs, the shortfall was as high as 58 percent. In such circumstances, it was estimated that less than 20 percent of all patients seeking outdoor medical services and less than 45 percent of all indoor patients preferred to attend public healthcare institutions, while the rest sought healthcare from private facilities.

Recognising such persisting difficulties, the National Health Policy 2002 stressed that substantial resources would have to be committed by the Central Government to the public health system in a phased manner, in order to ensure equitable access to healthcare services. The reworked healthcare strategy formulated under NHP 2002 thus envisaged

- creation of a well distributed network of primary healthcare services closely interlinked with health education and extension
- health intermediation through the agency of trained health volunteers who would form an essential link between the community and the healthcare institutions
- establishment and strengthening of the decentralised referral healthcare system to reduce excess patient loads on secondary and tertiary facilities by ensuring that most basic healthcare services were accessible as required at the nearest referral units
- more even dispersal of speciality and super-speciality services, with the involvement of private investment for meeting the needs of paying patients, so that free public facilities were increasingly availed by poorer users

## Provisioning Public Health-care

The basic structure and staffing patterns of the district level referral healthcare system are outlined in the charts below. Under the referral system, the health subcentre or SHC which forms the first link of the referral chain is expected to provide a package of basic healthcare services comprising

- universal immunisation
- supplementary nutrition (in association with ICDS) and preventive healthcare
- attended deliveries
- other maternal & child health [MCH] and family welfare [FW] services
- control of communicable diseases, as well as
- provision of basic drugs for the treatment of minor ailments.

Basic health-care services are provided by the trained Auxiliary Nurse-cum-Midwife [ANM] posted at the SHC, drawing additional support from a male Multipurpose Health Worker [MPHW-M] at the SHC, and the Lady Health Visitor [LHV] who attends to the health communication needs of six SHCs. Working in conjunction with the other SHC staff, the voluntary Community Health Worker [CHW] attached to each SHC provides the critical link between the preventive healthcare programme and the rural community. Patients requiring more specialised medical attention are screened and referred by each SHC to the attached Primary Health Centre [PHC].

Besides, providing the package of basic healthcare services described above, each PHC which forms the second link in the rural referral chain, is expected to cater to the referral needs of 6 attached SHCs. Thus the PHC is the point of first contact between rural patients and a qualified medical practitioner or Medical Officer [MO]. The MO is assisted by a Staff Nurse, a Pharmacist and a Laboratory Technician, who provide clinical support and diagnostic services for curative healthcare. Two attached Health Assistants - one male and one female - and one Health Educator support MCH, FW and other extension healthcare activities at the PHC, while other clerical and Class IV staff support the MO in discharging supervisory functions over the six attached SHCs. Although each PHC is ideally expected to provide a minimum number of beds for indoor patients requiring transit admission before being referred to the attached Block PHC [BPHC], both bedded and non-bedded PHCs exist in practice, since a large number of SHCs which have subsequently been upgraded to PHC status are not yet fully equipped. In ideal circumstances, each PHC is also provided with one ambulance or other vehicle for meeting such transit needs, along with one Driver as required.

### BOX-CHART: Institutional & Staffing Norms for the Rural Primary Healthcare System in India

Category	Unit Norm	Staffing Norm	Total Staff
<b>Personnel Norms</b>			
Trained Dai or Midwife	1 per village		1
Trained Community Health Guide*	1 for each village		1
Female Health Worker [HW-F]	per 1000 population		
Male Health Worker [HW-M]	1 per 5,000 population		
	in plains areas		
	1 per 3000 population		
	in tribal, hilly or backward areas		
Female Health Assistant [HA-F]	1 per 6 Female Health Workers		



**BOX-CHART: Institutional & Staffing Norms for the Rural Primary Healthcare System in India**

Category	Unit Norm	Staffing Norm	Total Staff
Male Health Assistant [HA-M] Medical Officer [MO]	1 per 6 Male Health Workers 1 per 30,000 population in plains areas 1 per 20,000 population in tribal, hilly or backward areas		
<b><i>Institutional Norms (initially prescribed under the 6th Five-Year Plan)</i></b>			
<b>Health Sub-centre [SHC]</b>	1 per 5,000 population in plains areas 1 per 3,000 population in tribal, hilly or backward areas	1 Female Health Worker [HW-F] /Auxiliary Nurse-cum-Midwife [ANM] 1 Male Multipurpose Health Worker [MPHW-M] 1 Voluntary Health Worker	Total = 3
<b>Primary Health Centre [PHC]</b>	1 per 30,000 population in plains areas 1 per 20,000 population in tribal, hilly or backward areas functioning as a Referral Institution for 6 SHCs	1 Medical Officer [MO] 1 Pharmacist 1 Staff Nurse/Midwife 1 Female Health Worker [HW-F] /Auxiliary Nurse-cum-Midwife [ANM] 1 Male Health Assistant [HA-M] 1 Female Health Assistant [HA-F] /Lady Health Visitor [LHV] 1 Laboratory Technician 1 Health Educator 1 Upper Division Clerk [UDC] 1 Lower Division Clerk [LDC] 1 Driver 4 Class IV Staff	Total = 15
<b>Community Health Centre [CHC]</b>	1 per 1 - 1.20 lakh population (1 per 0.8 lakh population in tribal, hilly or backward areas) functioning as a Referral Institution for 4 PHCs	1 General Physician 1 Surgeon 1 Obstetrician 1 Paediatrician  7 Staff Nurses/Midwives 1 Pharmacist/Compounder 1 Dresser 1 Radiographer 1 Laboratory Technician 2 Ward Boys 3 Sweepers 1 Dhobi 1 Mali 1 Chowkidar 1 Ayah 1 Peon	(Total MOs = 4 incl. 1 trained in Public Health)  Total = 25

\*Substituted more recently, under NRHM, by 'Accredited Social Health Activists' [ASHA] workers in 18 high-focus NRHM states

In addition to several SHCs and PHCs, each community development block is also provided with a Block PHC which functions as a community healthcare institution, handling all referrals from the PHCs and forming the apex of the rural healthcare system. The BPHC has facilities for more specialised healthcare encompassing surgery, paediatric and obstetric services, in addition to basic diagnostic services and clinical care, and is staffed by several MOs, nursing, technical and ancillary staff, with the requirement that at least one MO is qualified in Public Health. Since the BPHC functions as a full-fledged hospital, several other adjunct staff are also appointed to look after establishment needs. Ideally, since national norms require that there should be one Community Health Centre [CHC] for every 1-1.2 lakh population (0.8 lakh population in tribal, hilly and other difficult areas) which would cater to the referral needs of 4 attached PHCs, a CD Block would normally require more than one CHC in proportion to its population. However, with institutional shortfalls being highest at this level, the BPHC usually functions as the sole clinical healthcare facility directly serving the rural population. Depending on the distribution of patient loads and other technical considerations, a number of BPHCs have been subsequently upgraded into 30-60 bedded Rural Hospitals [RHs] with augmented facilities for curative healthcare.

Secondary healthcare within a district is provided initially by Sub-divisional Hospitals [SDHs] or State General Hospitals [SGHs] which are 60-bedded hospitals which function as First Referral Units [FRUs], with several clinical wings that provide specialised curative healthcare to indoor patients referred by the BPHCs and RHs. The District Hospital [DH] at the apex of the referral healthcare system is usually a large 300-bedded multi-speciality hospital providing secondary healthcare and pathological services to all patients referred upto it from any part of the district through the referral chain. Depending on their relative location of within the catchment of the referral system, the SDH/SGH and DH may also be required to play the role of referral units for rural areas located in close proximity to them. Thus in addition to indoor facilities, most secondary healthcare institutions also provide outpatient services, as well as MCH and FW services through their Post-Partum [PP] units.

While rural PHCs are established and maintained by the State Health Department under the Minimum Needs Programme [MNP] or Basic Minimum Services [BMS] Programme, basic rental and contingency charges, expenditure on drugs and equipment kits, and salary expenditures for ANMs and LHV at the SHCs are now supported by Central assistance under NHP 2002. Salary expenditures on male MPHs at the SHCs continue to be met by the State Government. BPHCs/RHs and other hospital level institutions are established and maintained by the State Government, but are eligible to receive Central funding for their upgradation.

### **Problems in Rural Health-care Delivery**

The structure of the district level referral system shows that in addition to clinical, indoor and outdoor healthcare, all public healthcare institutions are also expected to support the family welfare and MCH programme activities within the district. Besides these two essential functions, the public institutions are also required to provide technical support to various independent national programmes for vector and disease control, each with a vertical nature of its own. Thus in face of existing institutional deficiencies and infrastructural inadequacies, the public healthcare system is usually overloaded with programme activities, among which family welfare activities gain overall precedence. The impact of system overloading is particularly severe at the SHCs, where the ANM is the only technically qualified staff available to look after grassroots health needs. The LHVs and Health Assistants deputed by the PHCs have to travel to and look

after 5 other SHCs in the area. Much of their time and energy is devoted, in any case, towards programme and family welfare activities. Similarly, the sole MO posted at each PHC to look after the clinical needs of patients referred to the PHC is additionally expected to make periodic clinical visits to all 6 SHCs which are located at some distance from each other, besides having to look after the administrative and supervisory needs of the 7 health institutions (6 SHCs + 1 PHC) which make up each rural healthcare node. Even in the best of circumstances, the rural public health system becomes overstretched and is unable to fulfil the referral healthcare needs of the district efficiently, with particularly grave consequences for rural areas. Since in most practical situations, there are fewer SHCs, PHCs and CHCs than warranted by the size of the rural population, the extent of such system pressure becomes unimaginably high and is reflected in deterioration of service quality as well the reluctance of rural residents to seek basic healthcare from local public institutions. This rural health gap is increasingly filled by traditional healers, other private registered medical practitioners [RMPs] and quack doctors who are perceived to be more efficient in providing health services. Meanwhile, the rates of referral to secondary healthcare institutions become unreasonably high, greatly expanding their patient loads, with the primary health facilities being bypassed altogether in many cases.

Such problems which are basically rooted in existing institutional and infrastructural deficiencies arising from inadequate public health investment are then perceived as an inherent organisational weakness of the public healthcare system by policy advocates who wish to expand the scope of privately-provided health services in the sphere of rural healthcare. While the NSSO 60th Round survey on morbidity and healthcare (NSSO 2004) revealed growing awareness about health ailments in rural areas across the country, 18 percent of the rural residents reporting such health ailments generally went untreated, partly because of difficulties in access to rural healthcare and partly because of financial constraints. On the other hand, 8 out of every 10 patients who sought outdoor treatment in rural and urban areas depended on private non-institutional facilities, and 6 out of every 10 rural and urban patients seeking hospital care depended on private institutions. Since most large public hospitals and private healthcare facilities were located in urban areas, rural patients had to incur higher personal costs than urban patients in order to access clinical healthcare. The growing shift to private providers of healthcare, despite higher attached costs, was the combined result of overall capacity constraints within the public healthcare system, the high system load on account of programme and RCH related services as well as the overall perception that the quality of private health services was somehow better than those extended by the public healthcare system, although the deterioration in the quality of public services was the result of low system capacity relative to the patient load.

Recognising the growing gravity of this problem, the National Rural Health Mission [NRHM] launched in 2005 has sought to rectify this by encouraging vertical integration of all programme activities and all health sector resources under a unified District Health Plan, under the control of a common supervising authority. Since NRHM is to run upto 2012, it will also eventually augment the number of health staff who directly attend to the needs of the rural population. NRHM is expected to bring about radical improvement in grassroot rural healthcare situation, but will also expand the demand for secondary and tertiary referral services. Hence the entire district level public healthcare system in India is due for a thorough overhaul in order to bring system capacity in line with growing healthcare demands. This can only be accomplished if public health investments by the State and Central Governments expand considerably beyond their present levels.

## BOX-CHART: NRHM Health Service Norms for Rural Health Sub-centres & Primary Health Centres MATERNAL & CHILD HEALTH [MCH] SERVICES

SERVICES TO BE PROVIDED AT SHC	SERVICES TO BE PROVIDED AT PHC
<b>MCH SERVICES</b>	<b>MCH SERVICES</b>
<b><u>Ante-Natal Care</u></b>	<b><u>Ante-Natal Care</u></b>
<ul style="list-style-type: none"> <li>- Early Registration of all pregnancies within first trimester</li> <li>- Minimum 3 ANC Checkups: 4-6 months/8th month/9th month</li> <li>- Monitoring of Height, Weight, BP, Anaemia</li> <li>- Abdominal &amp; Breast examination</li> <li>- Folic Acid supplementation from 1st trimester</li> <li>- IFA supplementation from 3rd trimester</li> <li>- Tetanus Toxoid injections</li> <li>- Laboratory investigation of Blood (haemoglobin count) &amp; Urine (albumin &amp; sugar)</li> <li>- Referral for Blood Grouping at PHC</li> <li>- Identification &amp; Quick Referral of High-risk Pregnancies</li> <li>- Malaria prevention in endemic zones</li> <li>- Counselling on Diet &amp; rest, Institutional delivery &amp; Safe Home delivery</li> <li>- Counselling on Infant feeding &amp; Child nutrition</li> <li>- Counselling on Post-natal hygiene &amp; New-born care</li> </ul>	<ul style="list-style-type: none"> <li>- Early Registration of all pregnancies within first trimester</li> <li>- Minimum 3 ANC Checkups: 4-6 months/8th month/9th month</li> <li>- Folic Acid supplementation from 1st trimester</li> <li>- IFA supplementation from 3rd trimester</li> <li>- Tetanus Toxoid injections</li> <li>- Laboratory investigation of Blood (grouping &amp; haemoglobin count) &amp; Urine (albumin &amp; sugar)</li> <li>- Rapid Plasma Reagin [RPR] Syphilis Test screening</li> <li>- Identification &amp; Appropriate Management of High-risk Pregnancies</li> <li>- Referral of High-risk Pregnancies beyond the capability of MO/PHC to FRUs/Other hospitals</li> <li>- Chemoprophylaxis for Malaria in endemic zones</li> <li>- Nutrition &amp; Health counselling</li> </ul>
<b><u>Intra-Natal Care</u></b>	<b><u>Intra-Natal Care</u></b>
<ul style="list-style-type: none"> <li>- Promotion of Institutional Deliveries</li> <li>- Skilled Attendance at Home Deliveries when called</li> <li>- Appropriate referral</li> </ul>	<ul style="list-style-type: none"> <li>- 24-hour Delivery Services</li> <li>- Promotion of Institutional Deliveries</li> <li>- Normal Deliveries</li> <li>- Assisted Deliveries</li> <li>- Manual placenta removal</li> <li>- Quick Referral of Obstetric cases requiring Specialist attention</li> <li>- Management or Referral of Pregnancy-induced Hypertension</li> <li>- Pre-referral Obstetric First-aid in Obstetric emergencies</li> </ul>
<b><u>Post-Natal Care</u></b>	<b><u>Post-Natal Care</u></b>
<ul style="list-style-type: none"> <li>- Minimum 2 Post-partum Home Visits: within 48 hours/7-10 days</li> <li>- Initiation of early Breast-feeding</li> <li>- Counselling on Contraception</li> </ul>	<ul style="list-style-type: none"> <li>- Minimum 2 Post-partum Home Visits by attached SHC staff: within 48 hours/7-10 days</li> <li>- Initiation of early Breast-feeding</li> <li>- Counselling on Nutrition &amp; Hygiene, Contraception &amp; Essential New-born Care- Provision of Janani Suraksha Yojana [JSY] services</li> </ul>
<b><u>Other Related Services</u></b>	<b><u>New-born Care</u></b>
<ul style="list-style-type: none"> <li>- Management of MCH-related SHC Services</li> <li>- Provision of Janani Suraksha Yojana [JSY] services</li> </ul>	<ul style="list-style-type: none"> <li>- Neonatal Resuscitation</li> <li>- Control of Neonatal hypothermia/jaundice</li> <li>- Essential New-born Care</li> <li>- Promotion of exclusive breast-feeding for 6 months.</li> </ul>

<p><b><u>Child Health</u></b></p> <ul style="list-style-type: none"> <li>- Essential New-born care</li> <li>- Promotion of exclusive Breast-feeding for two trimesters</li> <li>- Full Immunisation of all Infants &amp; Children against Preventable diseases</li> <li>- Vitamin A supplementation to Children</li> </ul> <p>- Prevention &amp; Control of Childhood Diseases</p> <p><b><u>Family Welfare &amp; Contraception</u></b></p> <ul style="list-style-type: none"> <li>- FP Counselling &amp; Motivation</li> <li>- Distribution of Male/Female contraceptives &amp; IUD insertions</li> <li>- Follow-up for Couples adopting terminal FP</li> <li>- Counselling &amp; Referral for safe MTP</li> </ul> <p><b><u>Support for School Health Services</u></b></p> <p>Adolescent Healthcare</p>	<p><b><u>Child Health</u></b></p> <ul style="list-style-type: none"> <li>- Emergency care for Integrated Management of Neonatal &amp; Childhood Illness [IMNCI]</li> <li>- Care for routine Childhood illnesses</li> <li>- Essential New-born Care</li> <li>- Promotion of exclusive Breast-feeding for two trimesters</li> <li>- Full Immunisation of all Infants &amp; Children against Preventable diseases</li> <li>- Vitamin A supplementation to Children</li> <li>- Prevention &amp; Control of Childhood Diseases</li> </ul> <p><b><u>Family Welfare &amp; Contraception</u></b></p> <ul style="list-style-type: none"> <li>-FP Counselling &amp; Motivation</li> <li>- Distribution of Contraceptives</li> <li>- Terminal FP services like Tubal ligation/Vasectomy</li> <li>- Follow-up for Couples adopting terminal FP</li> <li>- Counselling &amp; Referral for safe MTP services</li> <li>- MTP using Manual Vacuum Aspiration [MVA] method</li> <li>- Counselling &amp; Referral of Couples experiencing Infertility</li> </ul> <p><b><u>Control of Reproductive Tract Infections [RTIs]/Sexually Transmitted Infections [STIs]</u></b></p> <ul style="list-style-type: none"> <li>- Health Education for prevention of RTIs/STIs</li> <li>- Treatment of RTIs/STIs</li> </ul> <p><b><u>School Health Services</u></b></p> <ul style="list-style-type: none"> <li>-Regular Health Checkups, Treatment, Referral &amp; follow-up</li> </ul> <p><b><u>Adolescent Healthcare</u></b></p> <ul style="list-style-type: none"> <li>- Lifestyle Education, Counselling &amp; appropriate treatment</li> </ul> <p><b><u>Nutrition Services</u></b></p> <ul style="list-style-type: none"> <li>- Coordination with ICDS- Diagnosis &amp; nutrition advice to malnourished children, pregnant women etc</li> <li>- Diagnosis &amp; control of anaemia &amp; Vitamin A deficiency</li> </ul> <p>Health Education/Behaviour Change Communication [BCC]</p>
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Source: MoHFW [2006]: Indian Public Health Standards [IPHS] for PHCs & SHCs, Government of India

**BOX-CHART: NRHM Health Service Norms for Rural Health Sub-centres & Primary Health Centres**  
**PREVENTIVE HEALTH SERVICES**

<p><b>SERVICES TO BE PROVIDED AT SHC</b></p> <p><b>PREVENTIVE HEALTH</b></p> <p><b><u>Disease Surveillance</u></b></p> <ul style="list-style-type: none"> <li>- Prevention &amp; Control of locally endemic diseases</li> <li>- Epidemic control</li> </ul> <p><b><u>Water Quality Monitoring &amp; Sanitation</u></b></p> <ul style="list-style-type: none"> <li>- Disinfection of Water sources</li> <li>- Testing of Water Quality</li> <li>- Promotion of Household Sanitation &amp; Waste disposal</li> </ul>	<p><b>SERVICES TO BE PROVIDED AT PHC</b></p> <p><b>PREVENTIVE HEALTH</b></p> <p><b><u>Disease Surveillance &amp; Epidemic Control</u></b></p> <ul style="list-style-type: none"> <li>- Prevention &amp; Control of locally endemic diseases</li> <li>- Alertness &amp; Remedial Action on Unusual Health Events</li> </ul> <p><b><u>Water Quality Monitoring &amp; Sanitation</u></b></p> <ul style="list-style-type: none"> <li>- Disinfection of Water sources</li> <li>- Testing of Water Quality using Bacteriological H2S Strip Test</li> <li>- Promotion of Safe Drinking Water &amp; Basic Sanitation</li> <li>- Promotion of Household Sanitation &amp; Waste disposal</li> </ul>
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Source: MoHFW [2006]: Indian Public Health Standards [IPHS] for PHCs & SHCs, Government of India

## BOX-CHART: NRHM Health Service Norms for Rural Health Sub-centres & Primary Health Centres NATIONAL HEALTH PROGRAMME ACTIVITIES

### SERVICES TO BE PROVIDED AT SHC NATIONAL HEALTH PROGRAMMES

#### **National AIDS Control Programme [NACP]**

- IEC activities on prevention of STIs & HIV/AIDS,
- PPTCT [Prevention Parent-to-Child Transmission] services for HIV/AIDS
- Coordinated control of HIV & TB risks
- Linkage with Microscopy Centre for HIV-TB coordination
- Counselling & referral needs of High-risk Behavioural groups/persons
- Condom promotion & distribution among high-risk groups
- Counselling & monitoring of HIV/AIDS patients receiving anti-retroviral therapy [ART]

#### **National Vector Borne Disease Control Programme [NVBDCP]**

- Control of vector breeding places through IEC, community action
- Collection of blood smears from all suspected cases
- Rapid tests for malaria
- Supply of anti-malarial drugs & follow-up action
- Support to integrated vector control activities on region-specific vector diseases

#### **Integrated Disease Surveillance Project [IDSP]**

- Weekly reporting on Syndromic Surveillance to PHCs
- Alertness & appropriate action on unusual health events

#### **Revised National Tuberculosis Control Programme [RNTCP]**

- Referral of suspected symptomatic cases
- DOTS [Directly Observed Treatment/Short-course] administration, documentation & follow-up
- Monitoring of completion of DOTS treatment

### SERVICES TO BE PROVIDED AT PHC NATIONAL HEALTH PROGRAMMES

#### **Reproductive & Child Health [RCH] Programme**

#### **National AIDS Control Programme [NACP]**

- IEC activities on Enhanced Awareness & Prevention of STIs & HIV/AIDS, PPPTCT services, etc
- Organisation of School Health/AIDS Education Programme
- Rapid Testing & Screening at PHC of Persons practicing High-risk behaviour
- Referrals to District Hospital Voluntary Counselling & Testing Centre [DH-VCTC] for confirmation of HIV positive status (6 High-prevalence States)
- Rapid Testing & Risk Screening of Antenatal mothers & Referral for PPTCT services to DH-VCTC (6 High prevalence States)
- Microscopy Services for HIV-TB coordination
- Condom promotion & distribution among high-risk groups- Counselling & monitoring of HIV/AIDS patients receiving ART

#### **National Vector Borne Disease Control Programme [NVBDCP]**

- Diagnosis, Microscopic confirmation & treatment of Malaria
- Symptomatic treatment, hospitalisation & management of suspected cases of Japanese Encephalitis & Dengue
- Complete treatment for Kala-Azar cases in Kala-Azar endemic areas- Complete treatment of Microfilaria-positive cases with Diethylcarbamazine [DEC] & Mass Drug Administration (MDA)- Management of any Drug side-effects
- Morbidity Management of Lymphoedema cases

#### **Integrated Disease Surveillance Project [IDSP]**

- Collection & Analysis of SHC data & Reporting to District Surveillance unit
- Alertness & First-level Action in Epidemic outbreaks
- Laboratory Diagnostic services for Malaria, Tuberculosis, Typhoid
- Testing for detection of faecal contamination in water- Estimation of Chlorination levels

#### **Revised National Tuberculosis Control Programme [RNTCP]**

- All PHCs to function as DOTS Centres
- Treatment delivery through DOTS providers
- Treatment of common complications from TB
- Treatment of any Drug side effects
- Recording & reporting of RNTCP activities

**National Blindness Control Programme [NBCP]**

- Identification of Blindness cases
- Referral of suspected Cataract cases

**Non-Communicable Disease [NCD] & Cancer Control Programmes**

- Community sensitisation through IEC about prevention of Cancers & NCDs
- Alertness & Detection of Early Warning signs
- Screening & Referral of suspect cases

**National Blindness Control Programme [NBCP]**

- Basic Diagnostic services & Treatment of Common Eye Diseases
- Refraction Services
- Detection of Cataract cases & Referral for Cataract surgery

**Non-Communicable Disease [NCD] Control Programme**

Source: MoHFW [2006]: Indian Public Health Standards [IPHS] for PHCs & SHCs, Government of India

**BOX-CHART: NRHM Health Service Norms for Rural Health Sub-centres & Primary Health Centres  
CLINICAL & CURATIVE SERVICES**

**SERVICES TO BE PROVIDED AT SHC  
CLINICAL MEDICARE**

**Curative Services**

- First Aid & Treatment for Minor Ailments
- Screening & Quick Referral

**SERVICES TO BE PROVIDED AT PHC  
CLINICAL MEDICARE**

**24/7 Services**

- 24-hour all-week Delivery & New-born Care to increase Institutional Deliveries

**OPD Services**

- Mornings: 4 hours/Afternoons & Evenings: 2 hours
- Minimum OPD attendance of 40 patients per doctor per day

**24-hour Emergency Services**

- Management of Trauma injuries, Accidents & First Aid
- Stabilisation of Patients before Referral
- Management of Dog bite/Snake bite/Scorpion bite Cases
- Other Emergency Conditions

**Hospital Services**

- 6-bedded In-patient Services

**Basic Surgical Procedures**

- Vasectomy, Tubectomy & Laparoscopic tubectomy
- Medical Termination of Pregnancy [MTP]- Cataract surgery on camp/fixed-day approach at PHC Operation Theatre [OT]

**Basic Laboratory Services**

- Routine urine, stool & blood tests
- Bleeding & clotting time
- Tests & Diagnosis of RTI/ STDs
- Sputum testing for TB at PHC Microscopy Centres under RNTCP
- Blood Smear examination for Malaria
- Rapid testing for Pregnancy, Typhoid & Malaria
- Surveillance tests for Syphilis/Yaws
- Rapid testing for faecal contamination in water
- Estimation of chlorination levels in water

## Referral Services

- Screening & Quick Referral of Cases needing Specialist Care including:
- Stabilisation of Patient
- Transportation facility on PHC vehicle/Other Referral transport- Patient Support during Transportation

## Rehabilitation

- Disability Prevention & Early Detection, Intervention & Referral

Source: MoHFW [2006]: Indian Public Health Standards [IPHS] for PHCs & SHCs, Government of India

## **BOX-CHART: NRHM Health Service Norms for Rural Health Sub-centres & Primary Health Centres** **HEALTHCARE TRAINING, SUPERVISION & MONITORING**

### **SERVICES TO BE PROVIDED AT SHC**

#### **TRAINING ACTIVITIES**

##### Training Programmes

- Training of Traditional Birth Attendants [TBAs] & Community Health Volunteers

#### **SUPERVISORY & MONITORING ACTIVITIES**

##### Monitoring & Coordination

- Coordinated services with ICDS, Village Health & Sanitation Committees, PRIs
- Management of MCH-related SHC Services
- Surveillance over Unusual Health Events
- Field Visits for Community Needs assessment

##### Record-keeping & Reporting of Vital Events

- Recording & reporting of MCH & Vital Events, i.e. births & deaths
- Maintenance of SHC records on mothers, children & eligible couples
- Monthly observance of Health Day at Anganwadi Centres [AWCs]

### **SERVICES TO BE PROVIDED AT PHC**

#### **TRAINING ACTIVITIES**

##### Training Programmes

- Training of Health Workers & TBAs
- Training of Paramedics for Treatment of Minor ailments
- Training of Voluntary Health activists
- Periodic Training of MOs through Continuing Medical Education
- Skill Development for Emergency Obstetric care
- Training of ANMs & LHVs in Antenatal care & Skilled Birth assistance

#### **SUPERVISORY & MONITORING ACTIVITIES**

##### Monitoring & Supervision

- Monitoring & Supervision of SHCs with Regular meetings/Periodic visits
- Monitoring of National Health Programmes
- Monitoring of ASHA activities
- Regular Monthly Visits by MO to all SHCs
- Regular Weekly Visits by HA-M & LHV to all SHCs
- Mainstreaming of AYUSH (Ayurveda, Yoga, Unani, Siddha, Homeopathy) vide local preference

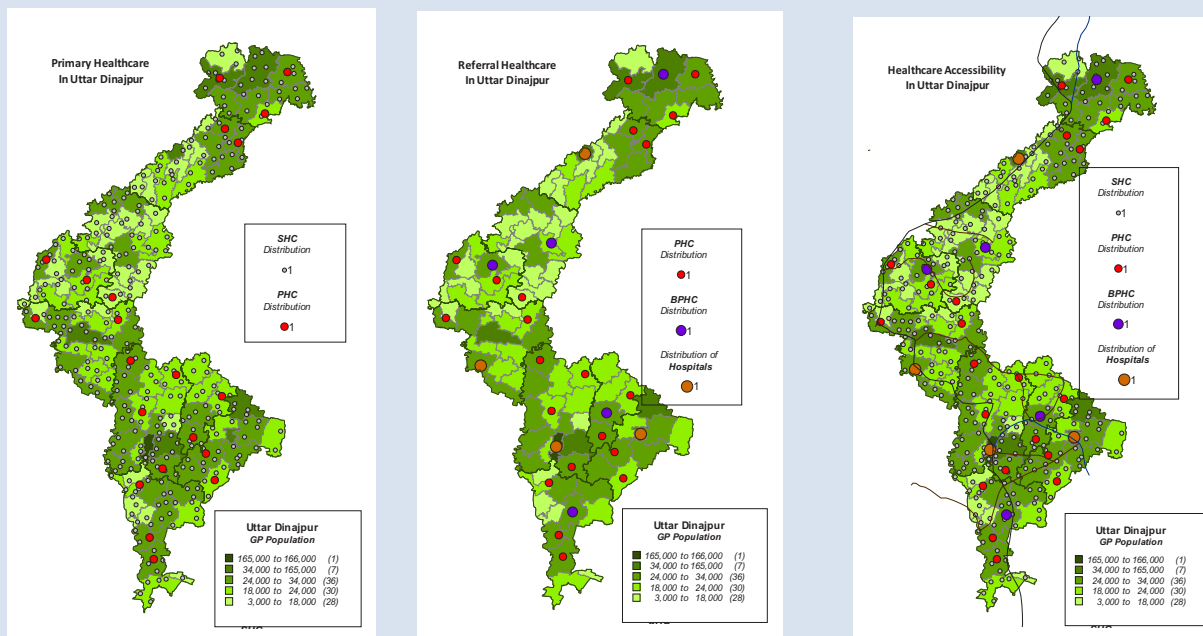
##### Record-keeping & Reporting of Vital Events

- Recording and reporting of Vital statistics including births and deaths.
- Maintenance of relevant records regarding PHC services

Source: MoHFW [2006]: Indian Public Health Standards [IPHS] for PHCs & SHCs, Government of India



MAP: Public Healthcare System in Uttar Dinajpur



Public Healthcare System in Uttar Dinajpur

Primary healthcare is delivered to the rural residents of Uttar Dinajpur through a network of 21 PHCs functioning in association with 327 health subcentres or SHCs, the spatial distribution of which has been outlined in the accompanying regional maps. In addition to this basic public healthcare network, basic referral services are provided at the 5 block PHCs [BPHCs] located at Dalua (Chopra block), Lodhan (Goalpokhar-1 block), Chakulia (Goalpokhar-2 block), Hemtabad and Itahar, as well as at the rural hospital [RH] located at Karandighi. Primary referral healthcare needs at Islampur and its adjoining blocks are met by the sub-divisional hospital [SDH] located at Islampur municipality, functioning as the FRU for Islampur SD. The state general hospital [SGH] at Kaliaganj acts as the FRU for Kaliaganj and its surrounding blocks, while primary referral healthcare needs at Raiganj block are directly met at Raiganj District Hospital [DH], which also serves as the secondary referral unit for all block-level healthcare facilities in Uttar Dinajpur, as well as for Islampur SDH and Kaliaganj SGH.

The uneven distribution of population across the Gram Panchayats [GPs] in Uttar Dinajpur is indicated in the regional maps. While the SHC network is relatively well developed, with areas of dense rural population being covered by widely dispersed service points, the distribution of PHCs across Islampur SD shows a large service gap between northern Islampur and Goalpokhar-2. Rural residents from the intervening GPs of central and southern Islampur and Goalpokhar-1 thus have distinctly lower access to clinical healthcare facilities, for which they must travel either to Lodhan BPHC (Lodhan GP) or Sirnia PHC (Goagaon-1 GP) in Goalpokhar-1 block, or to Islampur SDH. Unlike the border GPs in Chopra, Karandighi, Raiganj and Hemtabad which are well covered by PHCs, the Islampur-Goalpokhar-1 border region is covered only by SHC services. Being sandwiched in a narrow strip between the interstate and international borders, the region is also less served by internal roads and bus connections. The main connectivity is provided along national highway NH31, skirting the Bihar border, to which the BPHCs at Lodhan and Chakulia are linked by Zilla Parishad roads. However, since the journey from interior and border villages to these referral facilities is difficult, the current levels of healthcare utilisation remain low in this region.

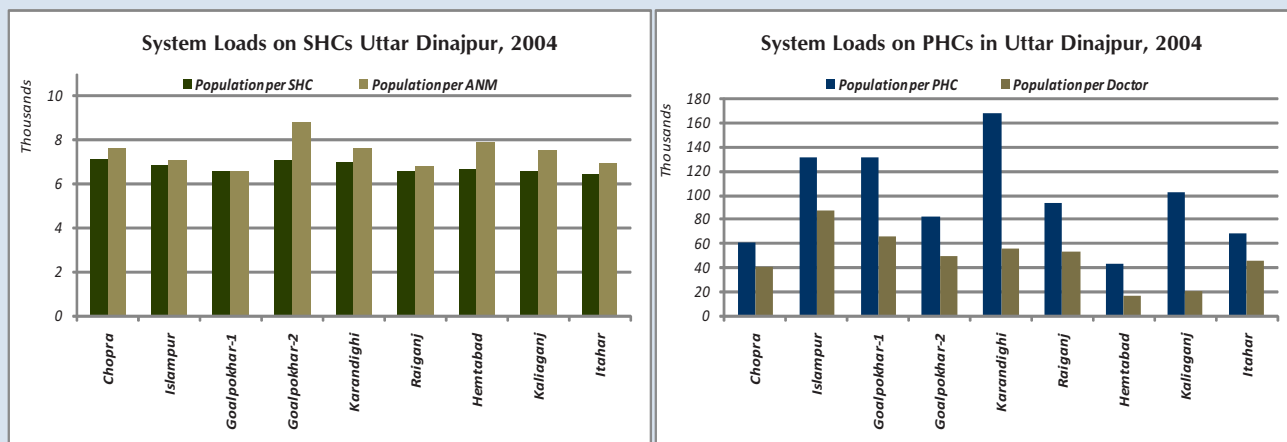
## Table: Structure of Referral Healthcare System in Uttar Dinajpur District, 2004

Rural & Urban	Healthcare Infrastructure						2004	Bed		
Sub-region Served	Referral Institution	Location	GPs	SHCs	PHCs	Block PHCs	Public Hospitals	Total Bed Availability	Sub-regional Population	per 1000 Population
Chopra			8	34	3	1		20	243189	0.08
	Dalua BPHC	Chopra GP				BPHC		20		
	Lakshmipur PHC	Lakhipur GP			PHC			-		
	Daspara PHC	Daspara GP			PHC			-		
	Sonapur PHC	Sonapur GP			PHC			-		
Islampur			13	37	2		1	72	331838	0.22
	IslampurSDH	Islampur M					SDH	68		
	Ramganj PHC	Ramganj-1 GP			PHC			4		
	Sujali PHC	Kamalagaon-Sujali GP			PHC			-		
Goalpokhar-1			14	31	1	1		15	262927	0.06
	Lodhan BPHC	Lodhan GP				BPHC		15		
	Sirniah PHC	Goagaon-1 GP			PHC			-		
Goalpokhar-2			11	29	2	1		21	246899	0.09
	Chakulia BPHC	Chakulia GP				BPHC		15		
	Kanki PHC	Kanki GP			PHC			6		
	Torial PHC	Torial GP			PHC			-		
Karandighi			13	43	2		1	30	350612	0.09
	Karandighi RH	Karandighi-2 GP					RH	30		
	Dalkola PHC	Dalkola M			PHC			-		
	Rasakhawa PHC	Rasakhawa GP			PHC			-		
Raiganj			14	54	4		1	178	545125	0.33
	Raiganj DH	Raiganj M					DH	168		
	Rampur PHC	Rampur GP			PHC			10		
	Bhatun PHC	Bhatun GP			PHC			-		
	Bindol PHC	Bindol GP			PHC			-		
	Durgapur PHC	Birghai GP			PHC			-		
Hemtabad			5	23	2	1		30	126828	0.24
	Hemtabad BPHC	Hemtabad GP					BPHC	20		
	Bangalbari PHC	Bangalbari GP			PHC			10		
	Baharail PHC	Naoda GP			PHC			-		
Kaliaganj			8	32	2		1	60	254607	0.24
	Kaliaganj SGH	Kaliaganj M					SGH	60		
	Kunor PHC	Mustafanagar GP				PHC		-		
	Majhiar PHC	Baruna GP			PHC			-		
Itahar			12	43	3	1		25	269776	0.09
	Itahar BPHC	Itahar GP				BPHC		25		
	Marnai PHC	Marnai GP			PHC			-		
	Surun PHC	Surun-1 GP			PHC			-		
	Churaman PHC	Kapasias GP			PHC			-		
<b>Uttar Dinajpur DT</b>			<b>98</b>	<b>327</b>	<b>21</b>	<b>5</b>	<b>4</b>	<b>451</b>	<b>2631801</b>	<b>0.17</b>

Source: Office of the CMOH, Uttar Dinajpur

Besides, providing essential MCH services including midwifery, as well as monitoring & extension services in connection with the National Health Programmes, the SHCs in the district are also expected to play a key role in service provision under the Universal Immunisation Programme [UIP] and in the registration of vital events such as births and deaths. Within the framework of clinical health, their principal role is to screen rural patients who need to be referred to PHCs for closer medical observation and treatment, under the direct supervision of a doctor. Ideally, each PHC is expected to handle patient referrals from 6 SHCs on an average. Given the large block populations and the large network of SHCs, primary healthcare delivery in Uttar Dinajpur is seriously handicapped by the pressure of having to handle service needs from more than thrice this number of SHCs. Without the requisite network of PHCs, it has therefore become progressively difficult to maintain service quality within the rural healthcare system. In Uttar Dinajpur, Hemtabad and Chopra are the only two blocks which have an institutional ratio of less than 10 SHCs per PHC, while each PHC in Karandighi and Goalpokhar-1 has to cater to more than 20 SHCs on an average. In terms of rural population loads per PHC, pressure is therefore heaviest in Karandighi, followed by Islampur, Goalpokhar-1 and Kaliaganj blocks.

From the vast variations observed in system loads between the SHC and PHC level, it is evident that rural healthcare in Uttar Dinajpur has so far been focused mainly towards the extension of SHC services. The departure from standard population based coverage norms is therefore smaller for the SHCs than for the PHCs in the district. Against prescribed coverage of 1 SHC per 5000 population, current SHC coverage ratios in the Uttar Dinajpur blocks fall in a relatively narrow range between 1:6423 in Itahar and 1:7153 in Chopra. Although, in the case of population loads per ANM, the ratios are marginally higher because of existing vacancies in this post, population coverage per ANM ranges between 1:6917 in Itahar and 1:8818 in Goalpokhar-2, where ANM vacancies are the highest. In Goalpokhar-1, all SHCs have ANMs in service and the two ratios are exactly equal. Against a standard ratio of 1 PHC per 30,000 population, current coverage ratios for PHCs in the Uttar Dinajpur blocks range between a low of 1:42,276 in Hemtabad and a high of 1:167,797 in Karandighi, indicating that the system overload on the small PHC network is now acute. With additional postings of doctors at the BPHCs, rural access to doctors is relatively better, especially in Hemtabad and Kaliaganj which benefit from having relatively small block populations. In the other Uttar Dinajpur blocks however, doctor-to-population coverage ratios range between 1:40,532 in Chopra and 1:65,732 in Goalpokhar-1, and reach a high of 1:87,220 in Islampur if the specialist doctors providing referral services at Islampur SDH are excluded from direct consideration.

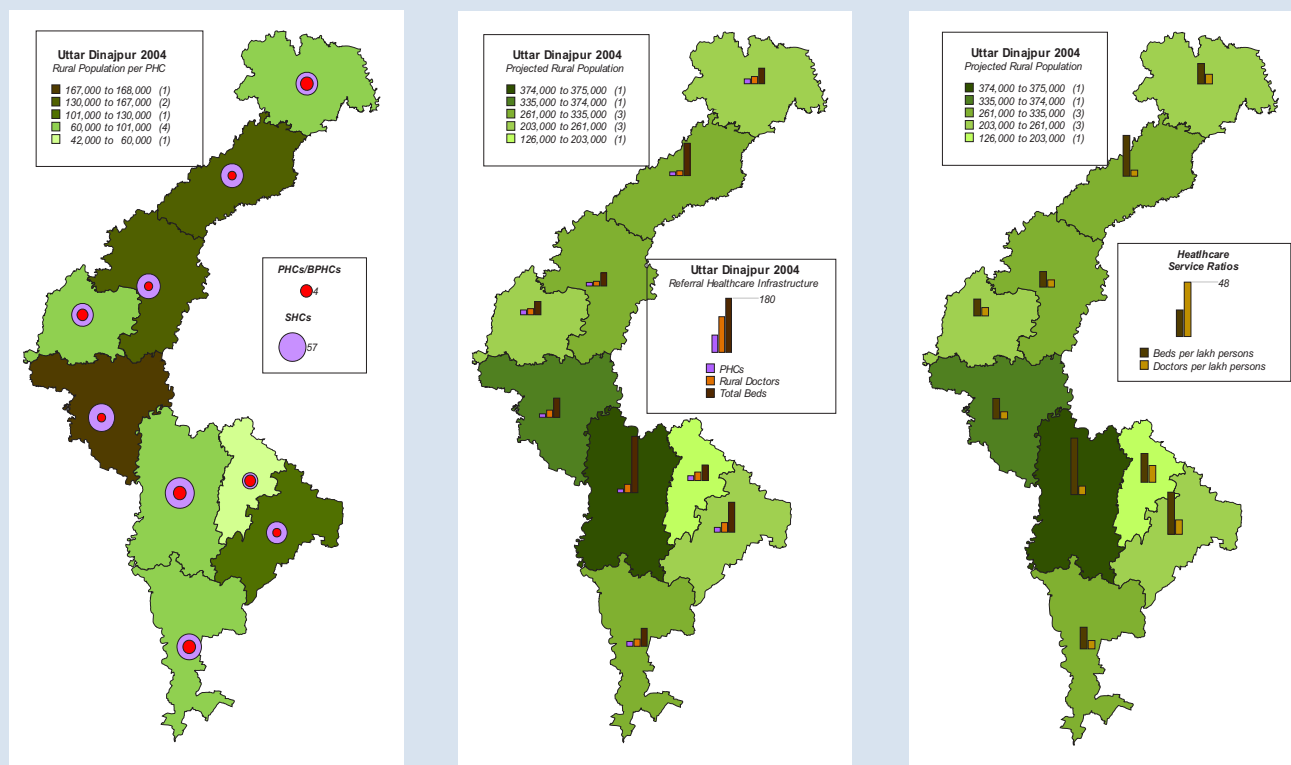


Despite the recently announced addition of another 17 SHCs, delivery of SHC services to the large rural population of Uttar Dinajpur still remains inadequate. On the basis of current population projections, it is estimated in the District Health Plan 2007 that another 114 SHCs will be required for the standard population based norm for SHCs to be met. The shortage of PHCs against standard population norms is even more serious, since it closely reflects the shortage of doctors in the district. With a rural population of 21.47 lakh in 2001, Uttar Dinajpur required at least 71 PHCs for the standard norm of one doctor and one PHC per 0.30 lakh population to be maintained. Because of the overall insufficiency of institutions, PHCs in Kaliaganj, Islampur, Goalpokhar-1 and Karandighi now have to cover a rural population ranging from 1.02 lakh to 1.68 lakh per PHC. Even in Hemtabad block which is most favourably placed, each PHC has a coverage rate of 0.42 lakh. To mitigate the additional pressure that falls on Islampur SDH and Raiganj DH of having to provide basic referral healthcare services to patients referred in from PHCs in Islampur and Raiganj blocks, two of the PHCs in these blocks, namely Ramganj in Islampur and Rampur in Raiganj block have recently been redesignated to BPHCs. However, since the infrastructure, staffing and service levels provided there remain at PHC level with inpatient services still to start, Islampur SDH and Raiganj DH continue to cope with unusually high service loads since, in addition to their referral loads, they also have to cater to a large number of rural patients who report for first-stage treatment.

Besides, the principal municipal towns of Islampur, Raiganj and Kaliaganj where the main referral hospitals are located, Uttar Dinajpur has 1477 villages distributed over 98 GPs under its nine blocks. Each GP, on an average, covers approximately 15 villages scattered over an area of 31 sq.km, with around 4200 rural households and an average population of nearly 22 thousand. Except in Chopra block where an average GP spreads over a larger area of 47.60 sq.km, holding over 5200 households and a rural population of approximately 28 thousand, GP areas under Islampur SD are generally compact and hold relatively sparse populations. Thus with 59 GPs, Islampur SD includes 195 SHCs, while the Raiganj SD blocks hold 39 GPs and 149 SHCs as well as over 44 percent of Uttar Dinajpur's rural population. While the PHCs in the district are divided equally between the two subdivisions, Raiganj SD is better endowed with public and private hospital facilities.

Despite having a rural population almost as large as that of Raiganj block, Karandighi occupies a much smaller area, with fewer GPs, SHCs and PHCs. While the pressure on rural health facilities in the block is consequently intense, the healthcare network that serves these needs is highly inadequate. In Goalpokhar-1 and Islampur too, the number of SHCs is inadequate relative to the overall size of the block population, while the population pressure on the sparse network of PHCs is excessively high. The brunt of this falls directly on Lodhan BPHC as well as on Islampur SDH. While Kaliaganj too has few PHCs relative to its block population, the presence of Kaliaganj SGH relieves the resulting system load. As a direct consequence, rural access to hospital beds and doctors is considerably better in Kaliaganj and Hemtabad compared to the rest of the district. Although Raiganj and Islampur have higher bed strengths, the referral hospitals there have handle secondary referral needs in much higher volumes. Throughout Islampur SD, rural healthcare facilities cope with much higher system loads than in Raiganj SD.

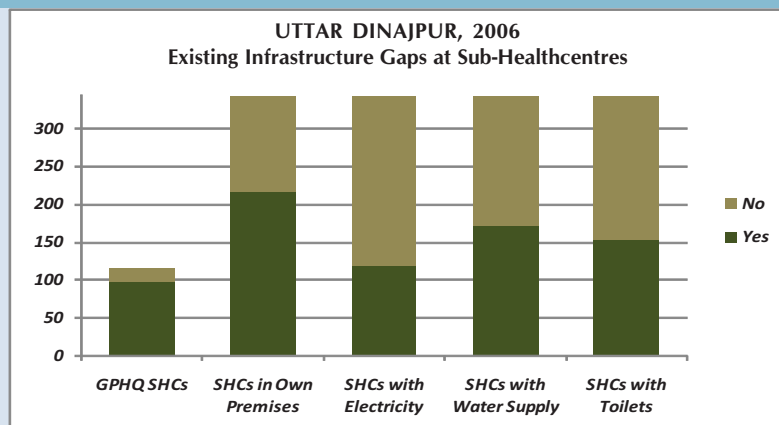
## MAP: Rural Healthcare Facilities & System Loads in Uttar Dinajpur



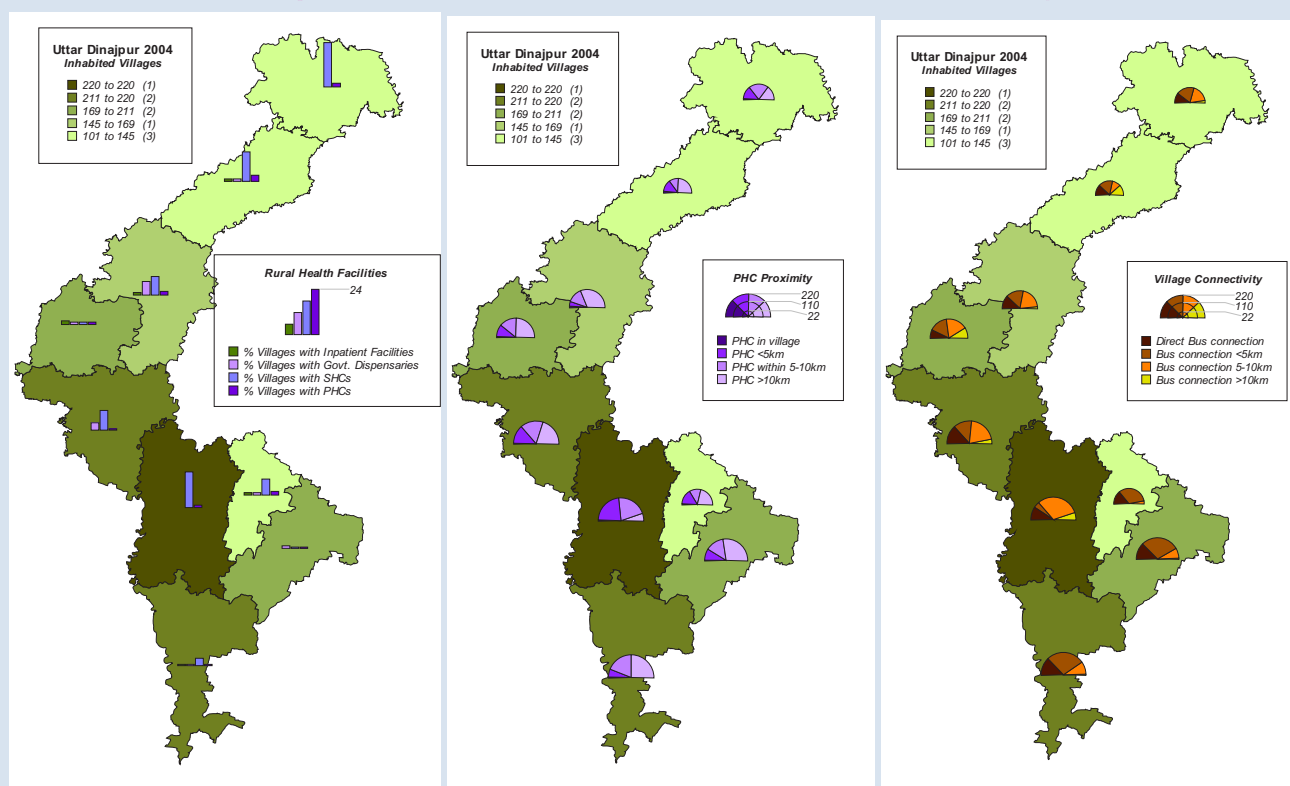
### Rural Healthcare Gaps

In spite of new policy guidelines that require each GP headquarters to be served by a health subcentre, only 81 Uttar Dinajpur GPs presently comply with this and 17 still do not have SHCs located at their headquarters. Although another 246 SHCs function at various distances from the GP headquarters, projections made on the 2006 mid-year population show that the district would need at least 458 SHCs to meet national norms. Thus the current shortfall in SHCs thus amounts to 25 percent. For basic NRHM norms to be met, another 114 SHCs would have to be established along with complementary staff appointments, before 2012 when NRHM will end. The challenge of improving the provisioning of basic rural healthcare services in Uttar Dinajpur is therefore immense.

Only 60 percent of the existing SHCs in the district function from their own buildings, while the rest are housed at rented premises or local clubs. Since building specifications and amenities at these makeshift healthcare facilities are inadequate, the health service quality is adversely affected. Because of the generally poor status of rural electrification in the district, nearly 70 percent of the existing SHCs do not have electrical connections, hindering the installation of lighting, basic technical equipment and refrigeration units which are essential for the safe preservation of medicines and vaccine stocks. Nearly 53 percent of the existing SHCs do not have direct water supply, as a result of which the maintenance of aseptic standards during healthcare procedures becomes a problem. Nearly 60 percent of the existing SHCs do not provide toilet facilities for patients and staff. Clearly therefore, if the rural healthcare system in Uttar Dinajpur is to improve substantially through national interventions like NRHM, the most critical effort will have to be directed at improving the quality of health infrastructure and services at the base.



**Map : Patterns of Settlements & Rural Health-care Accessibility**



Differences in the regional structure of rural settlements between the northern and southern blocks of Uttar Dinajpur have an important bearing on the accessibility of rural healthcare. Although the five Islampur SD blocks which were originally transferred from Purnea district in neighbouring Bihar now have relatively large block populations, settlement patterns there are still relatively sparse. The predominant gachh tenancies that give character to this dispersed pattern of regional settlement date from times when these agricultural lands and village settlements were carved out of the original forest by early settlers. In contrast, with the exception of Karandighi, the density of inhabited villages per GP is much higher in Raiganj SD than in the Islampur blocks, and has encouraged better networking and connectivity among rural settlements. Raiganj block alone accounts for around 15 percent of the inhabited villages and 17 percent of the SHCs in rural Uttar Dinajpur, in comparison to which the structure of rural settlements in the Islampur blocks is much

thinner. The proportion of villages having SHCs within them is relatively high in Chopra and Islampur where the overall number of villages is fewer, and also in the Karandighi-Raiganj-Hemtabad region where the overall network of villages as well as of SHCs is much larger. While Islampur and Raiganj towns form the respective hubs for these two regional networks, the proportion of villages having SHC facilities declines in the peripheral blocks of Goalpokhar-1 and Goalpokhar-2, and Kaliaganj and Itahar. Goalpokhar-1 and Karandighi also have a fairly large number of villages served by Government allopathic dispensaries. The presence of these is lower in blocks which have a more developed SHC network.

Raiganj block offers the best relative access to primary healthcare services, with nearly half its villages being located within distances of 5km from the nearest PHCs. In the adjoining blocks of Karandighi and Hemtabad, the PHCs are less accessible, and the majority of rural residents in Itahar and Kaliaganj have to commute over distances upto or greater than 10km to avail of primary healthcare services. Among the other Islampur SD blocks, only Chopra offers relatively better rural healthcare access because of its well-dispersed network of PHCs. Even though Islampur offers specialised referral healthcare facilities for the entire region at the subdivisional hospital, half of its villages are located at distances of 10km or more from the nearest PHCs. While the level of primary healthcare accessibility is also roughly similar in Goalpokhar-2, residents in nearly two thirds of villages in Goalpokhar-1 face the greatest difficulty in seeking primary healthcare, having to traverse distances greater than 10km to get to the nearest PHC.

In most parts of Uttar Dinajpur, rural residents who seek healthcare also face considerable difficulties in communications. The position is relatively better in the three blocks that surround Raiganj, namely Hemtabad, Kaliaganj and Itahar, where the vast majority of villages either have direct bus communications or have access to bus routes within a distance of 5km. Communications in Raiganj block itself are more difficult, with most villages being located at a distance of 5-10km from the nearest bus routes. Nevertheless, with a large proportion of these villages being located fairly close to the PHCs, the problems in accessing healthcare are not so bad. In Islampur SD, where the distances from villages to PHCs are generally higher, poor bus connectivity adds to the problem of healthcare accessibility in blocks like Goalpokhar-2 and Islampur, where a sizeable number of villages are located more than 10km away from the nearest bus routes. Thus, rural healthcare accessibility remains poor throughout the Islampur SD blocks, because of the limited network of PHCs as well as limited access to communications. Physical barriers such as these constrict the effective delivery of public healthcare in the region to a considerable extent, and are responsible in large measure for the poor rural healthcare indicators of Uttar Dinajpur.

### ICDS Facilities

Following relevant orders issued by the Supreme Court to the Government of India in December 2006, regarding universalisation of the ICDS scheme in all rural habitations of the country by the end of 2008, a massive expansion has occurred in the number of anganwadi centres [AWCs] as well as in the service outreach of the scheme. Yet even after the establishment of 750 new AWCs under ICDS during 2006-07, Uttar Dinajpur is still far short of the number of AWCs warranted by the size of its rural population in the age-group 0-6 years. While rapid extension of ICDS has assured the accessibility of ICDS services to a larger mass of rural children, this has not been matched so far by equivalent outlays on building physical infrastructure for ICDS since no provision for this exists within the funding component of the scheme.

**Table: ICDS Anganwadi Centres [AWCs] in Uttar Dinajpur, 2006**

CD Block	Total Inhabited Villages	Backward Villages	Total Operational AWCs	AWCs in Own Premises	AWCs in Rented Premises	AWCs in Open Sheds	AWCs with Drinking Water	AWCs with Sanitation Facilities
Chopra	115	71	173	14	-	159	5	-
Islampur	101	79	184	27	-	207	234	-
Goalpokhar-1	145	118	243	17	-	218	11	-
Goalpokhar-2	211	172	244	13	-	231	10	-
Karandighi	169	167	325	59	-	266	6	6
Raiganj	220	78	152	26	-	126	17	-
Hemtabad	114	5	5	1	4	-	5	-
Kaliaganj	191	32	34	23	11	-	32	24
Itahar	211	81	96	13	-	73	13	-
<b>Uttar Dinajpur</b>	<b>1477</b>	<b>803</b>	<b>1456</b>	<b>193</b>	<b>15</b>	<b>1280</b>	<b>333</b>	<b>30</b>

Source: District Programme Officer, ICDS, Uttar Dinajpur

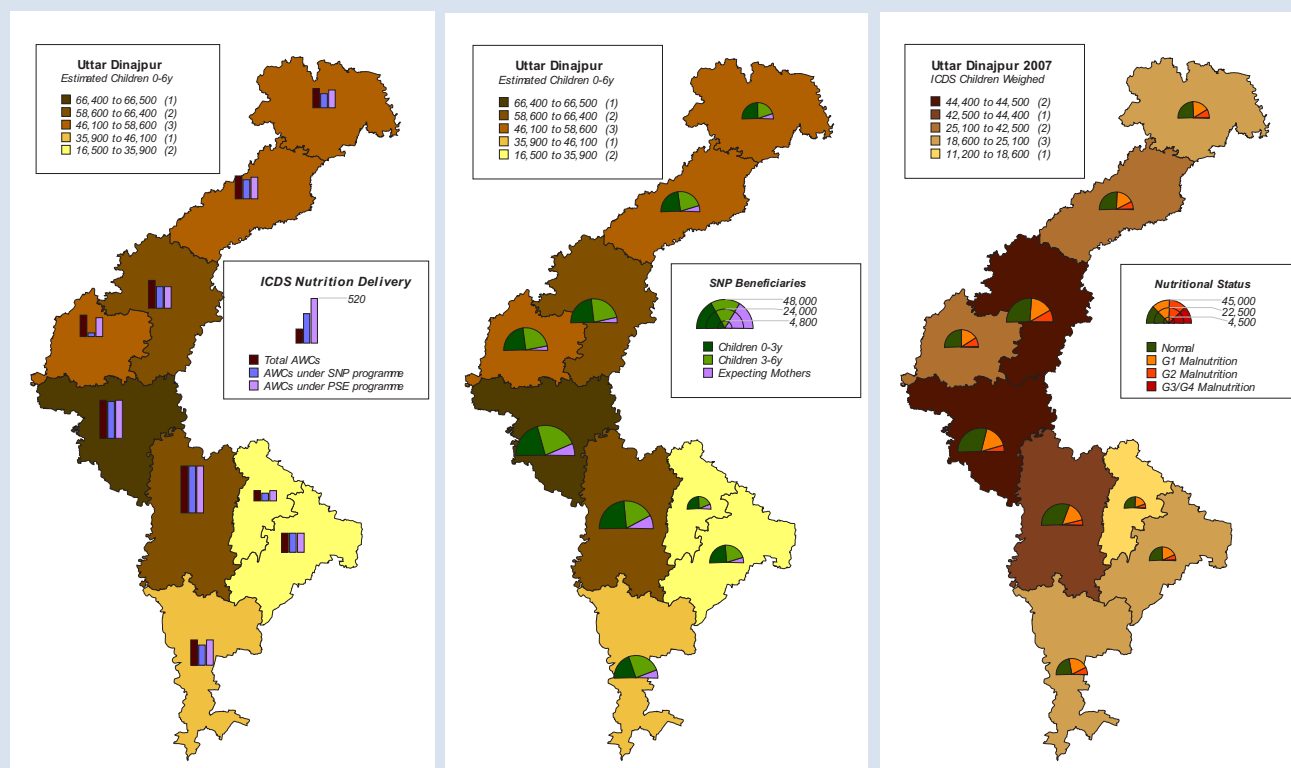
Although all villages in the 9 Uttar Dinajpur blocks are now officially covered in spatial terms by 2334 AWCs, 86 percent of these centres either operate from inadequate rented accommodation or under the open sky. Another 338 AWCs have now acquired their own buildings, but these are mostly concentrated in Kaliaganj block where 144 out of 147 AWCs fall into these category. In view of the huge capital burden entailed in providing adequate physical infrastructure to the new AWCs, the Uttar Dinajpur District Health Plan for 2007 proposes an alternative service arrangement through which ICDS services would be extended in conjunction with other Health Department activities from multifunctional facilities set up with capital support from NRHM and other rural development programmes. Given the pressing infrastructural needs for basic health facilities and the convergence of ICDS and public health service delivery at the SHCs, the idea merits serious consideration.

Despite these overall infrastructural shortcomings, the ICDS system in Uttar Dinajpur represents the widest outreach of healthcare related services, extending well beyond the SHC network and now covering a rural population of over 23 lakh at the recommended norm of one AWC per 1000 population. As such, since the AWCs are generally the first and most accessible point which a rural mother can approach for proper healthcare advice, their role in health communication and consultation holds the key to further improvement in the rural health situation in Uttar Dinajpur. Closer coordination between the SHCs and AWCs is however needed, since the clinical services to which the ICDS system offers access have to be delivered through the State healthcare system. At present, the maternal & child health [MCH] indicators for Uttar Dinajpur are still poor on several counts. Full coverage by antenatal care [ANC] services extends to only 40 percent of the expecting mothers registered by ICDS. With the low rate of institutional deliveries in the district at just over 20 percent, nearly four out of every five reported births take place within rural homes, usually in unsupervised conditions. Early marriage among most rural communities in Uttar Dinajpur also leads to high incidence of high-risk pregnancies, neonatal complications and low birthweight [LBW] deliveries. The infant mortality rate [IMR] in the district is accordingly high at around 68 per 1000 live births, while the maternal mortality rate [MMR] is estimated to be around 191 per lakh deliveries.



As a combined consequence of low birthweight followed by inadequate nutrition, approximately 71 percent of the rural children under age 5 in Uttar Dinajpur for whom weighing records are available suffer from protein energy malnutrition [PEM] in some form. Grade 1 [G1] malnutrition, implying a birthweight of 2.75kg progressing to a weight of 15kg at age 5, has the highest incidence, occurring among approximately 51 percent of the rural children in this age group. Grade 2 [G2] malnutrition, representing a birthweight of 2.5kg progressing to a weight of 13kg at the age of 5 years, occurs among another 18 percent, while severe G3/G4 malnutrition, starting with a birthweight of 1.5-2.0kg and progressing to a weight of 9kg at age 5, still affects roughly 1.3 percent of all rural children. Under-5 child mortality in the district is accordingly high, and is estimated at 128 per 1000 live births under DLHS-RCH 2004, implying that child survival rates are still very low in rural Uttar Dinajpur.

**MAP: ICDS Nutritional Programmes & Malnutrition Status**



ICDS is primarily a nutrition programme which uses a holistic approach that addresses mother & child health in order to improve child survival in the rural areas of India. Two sub-components of ICDS which involve the improvement of nutrition standards are the supplementary nutrition programme [SNP] for children upto the age of 6 years and for pregnant and lactating women, in addition to which the ICDS pre-school education [PSE] programme seeks to provide an early stimulus for improving subsequent education rates among children who pass the age of 6. Both the SNP programme for women and the SNP programme for children in the 0-6 age-group lay particular emphasis on improving prenatal and early postnatal nutrition for children. However, with the addition of the PSE component also to be delivered under the umbrella of the AWCs, it has been found that the nutritional emphasis often shifts away from the critical needs of the 0-3 age-group to the older children in the 3-6 age-group who attend the AWCs, with lower impact in terms of reduction of malnutrition and improved child survival. In Uttar Dinajpur, the delivery of SNP and PSE is strongest in Karandighi and Raiganj which have large populations and a large number of eligible SNP

beneficiaries. Coverage under SNP and PSE is also fairly even across the AWCs in Kaliaganj, but varies to the detriment of the SNP programme in most other blocks. Throughout Islampur SD, the SNP programme consistently attracts more children in the 3-6 age-group and fewer in the 0-3 age-group, while Goalpokhar-2 represents the worst case where SNP coverage is considerably outstripped by the coverage under PSE. Through most parts of the district, SNP coverage of eligible mothers and 0-3 age children is therefore low, increasing the incidence of malnutrition among children. More than 50 percent of the children in Chopra, Islampur, and Goalpokhar-2, as well as in Hemtabad, Kaliaganj and Itahar blocks suffer from PEM malnutrition, with the incidence being highest in Itahar. G1 malnutrition is the commonest form, affecting 27 percent of the children in Raiganj and 40 percent in Itahar, while ranging between 31-37 percent in the other Uttar Dinajpur blocks. The frequency of G2 malnutrition among young children is also well above 16 percent in Itahar, Goalpokhar-1, Goalpokhar-2 and Chopra blocks. Incidence of G3/G4 malnutrition ranges between 1-2 percent in all Islampur SD blocks except Goalpokhar-1, touching a high of 2.2 percent in Kaliaganj.

The natural corollary of poor child health and low child survival rates in Uttar Dinajpur is seen in high total fertility rates [TFRs] among rural women in the district, which has led to explosive population growth following the gradual improvement in rural health conditions. More detailed analysis of the delivery of reproductive & child health services through the ICDS system in Uttar Dinajpur district is taken up separately in the chapter on gender status in the Uttar Dinajpur DHDR. However, it is quite obvious the rural healthcare programme in the district must expand its focus on strengthening the SHC and ICDS infrastructure, if accelerated healthcare benefits are to be obtained from NRHM.

### National Health Programmes in Uttar Dinajpur

A fair proportion of the diagnostic, monitoring and information services extended to the public by the healthcare system are provided as part of ongoing national health programmes that delivered through the common infrastructure of the State Health system. Thus in addition to the Reproductive & Child Health [RCH] services under ICDS which are focused towards preventive aspects of healthcare and the improvement of population quality, these include

- the Integrated Disease Surveillance Project [IDSP] providing technical facilities for the diagnosis and monitoring of major communicable diseases like malaria, tuberculosis, typhoid, etc.
- the National Vector Borne Disease Control Programme [NVBDCP] and its programme interventions for the monitoring, treatment and control of leprosy, malaria, kala-azar, etc.
- the Revised National Tuberculosis Control Programme [RNTCP] which screens patients and provides DOTS treatment for the incidence of TB
- the National AIDS Control Programme [NACP] that seeks to minimise HIV/AIDS risks through mass behavioural counselling and health communication, while screening sero-positive sufferers who may need advanced anti-retroviral [ART] treatment
- the Non-Communicable Disease [NCD] Control Programme that provides healthcare support for controlling the spread of lifestyle diseases like diabetes, cardiovascular disease, and cancer
- the National Blindness Control Programme [NBCP] that provides screening, refractive services and surgery for ophthalmic ailments.

Most of the programme interventions are conducted through a nested diagnostic & delivery structure extending from national monitoring bodies to the grassroots with funding support of external agencies like the World Health Organisation [WHO] and the World Bank, and also have an intensive research component

through which field data are transmitted to national research organisations like the Indian Council for Medical Research [ICMR]. While this external support enables the State Health Department to provide critical technical facilities and personnel to the district healthcare system, it can sometimes overburden the system at the cost of basic healthcare services. Thus, as pointed out in several monitoring reviews and studies, one of the reasons why the private healthcare system is able to offer better service delivery is because it remains largely free of this technical overload. The critical data available through these programmes however enable the burden of disease in Uttar Dinajpur district to be closely monitored.

### **Leprosy Incidence**

With an overall prevalence rate [PR] of 2.36 cases under treatment per 10,000 population and a new case detection rate [NCDR] of 3.7 per 10,000 persons, both considerably in excess of the West Bengal PR of 1.24 and NCDR of 1.81, the incidence of leprosy in Uttar Dinajpur district is still very high. In the country, where PR has declined substantially, the elimination level being targeted by WHO-sponsored leprosy eradication programmes will be achieved at a PR of 1 per 10,000 which would lower the transmission risk of the disease. However, for this to happen, the detection of new cases in high-incidence districts such as Uttar Dinajpur would also have to decline steeply. A major impediment in meeting programme targets is posed by the relatively long incubation period of the disease and by the social stigma attached to it which causes its incidence to be concealed. Hence, although the prevalence of leprosy may decline steadily, it takes some time for NCDR to respond during which the possibility of transmission remains high.

Nearly half of the new cases currently detected in Uttar Dinajpur are diagnosed to be suffering from the more contagious multibacillary [MB] form of the disease. Compared to leprosy in other forms, the treatment cycle for MB leprosy with multi-drug therapy [MDT] is twice as prolonged and takes twice as many doses. Thus with a release from treatment [RFT] rate of 48.08 percent, the district still lags considerably behind the national RFT of around 90.6 percent. While this partly reflects the longer treatment cycle, the possibility that many patients may discontinue their treatment midway is also real. In such cases, while the contagion risk of MB leprosy remains high, re-infection may also occur among the original patients. Women patients comprise 32.1 percent of the new cases detected in Uttar Dinajpur district. Although fewer women are known to suffer from the MB form of the disease, the two-thirds presence of men among new cases detected does not necessarily indicate that women are at lower risk. The usual cause for female underrepresentation in NCDR is the limited access of women to facilities where leprosy infections can be detected and treated, as a result of which more cases of leprosy among women still go undetected.

### **Malaria Incidence**

Malaria in human beings is caused by presence of the protozoan parasites *Plasmodium vivax* or *Plasmodium falciparum*, which enter the blood stream after bites from the female anopheles mosquito. The *P. falciparum* [Pf] induced strain of malaria is more virulent because of its resistance to treatment with synthetic chloroquine, the usual drug administered in cases of malaria. Under the NVCDP surveillance system, case detection of malaria commences with the fortnightly domiciliary visits made by male MPHWs, when sample blood smears are taken from patients suspected to be suffering symptomatically from malarial fever. These slides are tested at microscopy laboratories at NMCP designated public health institutions to establish whether the malaria parasite is present. The annual parasite incidence [API] reported in Uttar Dinajpur in 2007 i.e. the annual number of cases where the presence of the malaria parasite was confirmed by microscopy tests was estimated to be around 0.17 per 1000 population on a sampling rate of 2.88 percent, with a slide positivity rate [SPR] of 0.16 percent. Although low when compared to the all-India API

of 0.89 in 2004, the accuracy of the API measure depends on the annual blood smear examination rates [ABER] i.e. the proportion of the population under surveillance from whom blood smears have been collected, which was 2.88 percent in Uttar Dinajpur. Since this depends in turn on the total number of MPHWs available and the overall efficiency of the domiciliary visit system, persisting staffing gaps and vacancies can lead to lower detection rates. Although no deaths from the disease were reported in the district, 9 cases of Pf malaria were detected among the slides examined, indicating that this drug-resistant strain which is endemic in the Northeast states and neighbouring Bangladesh has also spread into Uttar Dinajpur.

Among the other diseases in the vector-borne group, kala-azar had a major presence with 118 reported cases in 2007. With 710 kala-azar cases being recorded cumulatively in the district between 2001-06, Uttar Dinajpur accounted for 6 percent of the total cases recorded in West Bengal. However, with modern prophylaxis the number of fatalities could be limited to 3. Dengue fever which strikes the neighbouring district of Malda with greater severity had lower presence in Uttar Dinajpur with only 4 reported cases, while no cases of lymphatic filariasis and Japanese encephalitis were found to be present in 2007.

### **Tuberculosis Incidence**

Tuberculosis was once a major killer disease in India and the country still accounts for over one-fourth of the new cases detected globally today. Although the National TB Control Programme [NTCP] instituted in 1962 aimed at early detection and treatment of the disease through a widespread network of District Tuberculosis Centres [DTCs] and PHC level testing services, one of the long-standing problems faced by NTCP was the non-completion of the lengthy course of treatment by patients in whom the presence of the TB bacillus had been detected. Since 1992, the revised RNTCP programme has thus sought to improve detection rates by extending microscopy services through the PHCs and to provide effective short-course DOTS treatment to all sufferers in order to break the chain of transmission and thereby shrink the pool of the disease to negligible proportions. Significant success has since been achieved under RNTCP with annual total case detection rates rising nationally to 125 per lakh population with a positive smear detection rate of 53 per lakh while cure rates among new cases have now risen to 83 percent, all of which have been surpassed in West Bengal. However, with 3091 new cases of TB being detected in Uttar Dinajpur in 2007, the annual total case detection rate is still around 118 per lakh population and lags behind the national and state averages. However, although the smear positive rate for the district matches the national rate of 53 per lakh, the cure rate of 86 percent among new TB cases is better than the national rate with a low default rate of 7.53 percent, though still short of the state average of 90 percent. For the incidence of TB to be eradicated in Uttar Dinajpur, a strong thrust will have to be placed on new case detection.

### **HIV/AIDS Risks**

The incidence of sexually transmitted infections [STIs] and direct risks of HIV/AIDS are known to have risen in Uttar Dinajpur as a consequence of the growing movement of young males from the district to other metropolitan cities and states in search of temporary work. Such movements are particularly strong in the border blocks of Islampur SD. Migrant workers in large cities may often engage in high-risk sexual behavior, and because they return seasonally to their homes and spouses, the vulnerability of womenfolk to transmission risks also becomes similarly high. Because of the possibility of parental transmission, the future generation of children is also rendered vulnerable.

Such health risks are accentuated by the passage of major highway links through the length of the district, especially after Dalkola where the NH34 route leading from Kolkata to Uttar Dinajpur is joined by NH31

and becomes the main freight corridor between the rest of India and the Northeast states. From this junction at Purnea More to Islampur, the highway skirts the interstate border, alternately entering and leaving West Bengal at consecutive waypoints. Because of this peculiar alignment and accompanying jurisdictional problems, this stretch of highway is notoriously difficult to police and the casual sex trade and other criminal activities flourish openly. Several highway settlements along the stretch thus attract flying commercial sex workers and now serve as halting and staging points for interstate truck-crews, among whom the incidence of promiscuous and high-risk behavior is known to be frequent. With the border with Bangladesh barely a few kilometres away and easy transportation access to other states, the area has also emerged as a major conduit for international and interstate trafficking of women into red-light areas in the cities. All these contributing factors also make the local residents of Islampur SD vulnerable to high HIV/AIDS transmission risks.

Although no case of full-blown AIDS was reported in 2007, 54 HIV sero-positive cases were detected by VCTC & PPTCT clinics in Uttar Dinajpur district. Of the 188 persons who underwent HIV/AIDS testing at the VCTC at Raiganj District Hospital, 22 were found to be sero-positive, yielding a sero-positivity rate of 8.9 percent for males and 21.4 percent for females. Among the 54 direct walk-in patients tested, sero-positivity was 5.6 percent for males and 16.7 for females. In terms of overall sero-positive rates, Uttar Dinajpur ranked 6th in the state, indicating that HIV transmission risks were high in the district. The higher sero-positivity recorded by women in both cases show that the risk of subsequent parental transmission to children is also very high in the district.

### Incidence of Disability in Uttar Dinajpur

In 2001, 1.67 percent of the Uttar Dinajpur population reported some form of physical disability, with the rural incidence being higher than the urban rate. In most cases, the disability rates were marginally lower compared to West Bengal as a whole, but exceeded the national averages. Impairments of vision and mobility were the two main forms of disability prevalent in the district, together accounting for more than two-thirds of the total disabled population of 40,900 persons. Persons with speech disabilities accounted for a significantly higher share in the disabled population of the district than in West Bengal as a whole. With close to 18 thousand sight-impaired persons in 2001, Uttar Dinajpur had a sight-disability rate of 0.73 percent in ratio to the district population, which was lower than the corresponding all-India rate of 1.03 percent and the West Bengal rate of 1.08 percent. As required under the National Programme for the Control of Blindness [NPCB], all villages in Uttar Dinajpur maintain a Blind Register.

**Table: Physically Disabled Persons in Uttar Dinajpur, 2001**

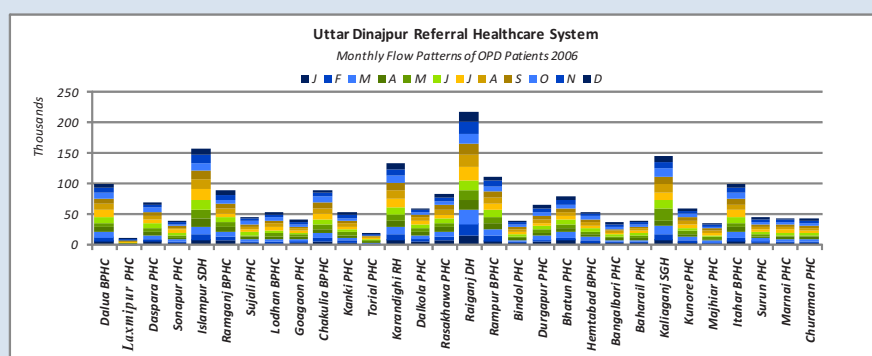
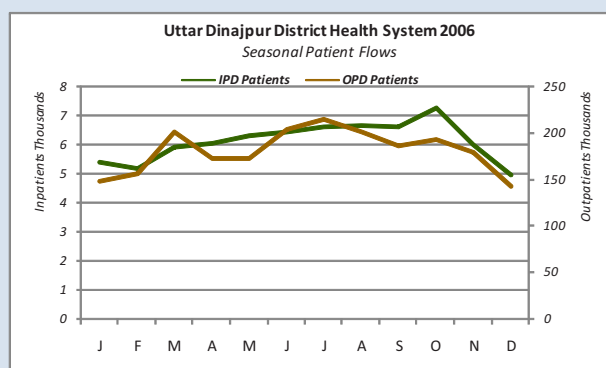
Disability-type	Total Disabled Population	Rural Disabled Population	Urban Disabled Population	% Disabled to Total Population	% Disabled to Rural Population	% Disabled to Urban Population	% to Total Disabled Population		
							U Dinajpur	W Bengal	India
Sight Disability	17784	15855	1929	0.73	0.74	0.66	43.48	46.67	48.55
Disability in Movement	10409	9448	961	0.43	0.44	0.33	25.45	22.34	27.87
Speech Disability	4764	4365	399	0.20	0.20	0.14	11.65	9.20	7.49
Hearing Disability	3651	3315	336	0.15	0.15	0.11	8.93	7.12	5.76
<b>Total Disabled Persons</b>	<b>40900</b>	<b>36750</b>	<b>4150</b>	<b>1.67</b>	<b>1.71</b>	<b>1.41</b>			

Source: Census, 2001

Of the 1675 cataract surgeries performed under NPCB between March 2006 and February 2007, 1056 (63%) were formed at public healthcare facilities and another 619 (37%) at private institutions. All cataract surgeries conducted at the former also involved the simultaneous implantation of intra-ocular lenses [IOLs]. Given the relatively low prevalence of sight-disability in the district, the NPCB surgical performance would seem fair. Although 150 of the 996 school going children screened for vision disabilities under NPCB were detected with refractive errors and 86 were provided free corrective spectacles, the average incidence rate of 15 percent for schoolchildren with refractive vision disabilities in Uttar Dinajpur appears to be rather high. Given the large district population, vision impairment at this rate among the huge mass of school learners is a problem that can potentially have a highly adverse impact on learning performance.

## Patient Flow through the Public Healthcare System

Uttar Dinajpur currently offers inpatient facilities at two PHCs, five BPHCs and one RH, as well as at the referral hospitals at Kaliaganj, Islampur and Raiganj, with a total availability of 451 hospital beds. Outpatient facilities are offered at these health units and at the 21 PHCs - two of which have recently been redesignated as BPHCs. Only one other Government hospital, namely the Police hospital at Kasba, operates outside the District Health system. Annual patient flows through the District Health system in the year 2006 comprised 21.78 lakh outpatients and 0.73 lakh inpatients, at a ratio of 30 outpatients to every patient who availed inpatient care. At the main referral hospital at Raiganj DH, the ratio of inpatients to outpatients reached 1:9, while it was marginally lower at 1:10 at Islampur SDH and 1:11 at Kaliaganj SGH. However, at the third-tier rural healthcare units in the district, the ratio varied very widely from between from 1:21 to 1:28 at Hemtabad, Lodhan, Dalua and Itahar BPHCs and Karandighi RH, to the very low level of 1:128 at Chakulia BPHC where inpatient flows are still very weak. Aggregate inpatient [IP] and outpatient [OP] flows in Uttar Dinajpur therefore evidently vary by season, reaching an annual peak during the main monsoon months between June and August and falling off during the winter months. However, while the OP flows show seasonal swings with spring and monsoon peaks, IP flows rise relatively steadily through the course of the year, reaching a later peak, then decline with the onset of cold weather.



While monthly OP flows at Raiganj DH averaged around 18 thousand in 2006, OP flows at Karandighi RH, Kaliaganj SGH and Islampur SDH averaged between 11-13 thousand outpatients per month. Despite the differences between them in facilities and referral status, Karandighi RH thus attended to almost as many outpatients as Kaliaganj SGH. Rampur, Dalua and Itahar BPHCs each handled well over 8000 outpatients per month, while Lodhan and Hemtabad BPHCs handled half that load. While most PHCs in the district handled OP flows ranging between 3-6 thousand per month, Rasakhawa PHC handled nearly 7 thousand outpatients per month, while Laxmipur PHC (Chopra) and Torial PHC (Goalpokhar) received distinctly lower average OP flows of less 1700 outpatients per month. The bulk of the inpatient flows in Uttar Dinajpur were directed to Raiganj DH, Islampur SDH and Kaliaganj SGH because of their referral status, with Raiganj DH handling an average of 2000 inpatients per month, compared to just under 1300 at Islampur SDH and 1100 at Kaliaganj SGH. At the third-tier rural healthcare institutions at Itahar BPHC, Dalua BPHC and Karandighi RH, average monthly IP flows ranged between 300-425 but touched a very low figure of around 60 per month at Chakulia BPHC.

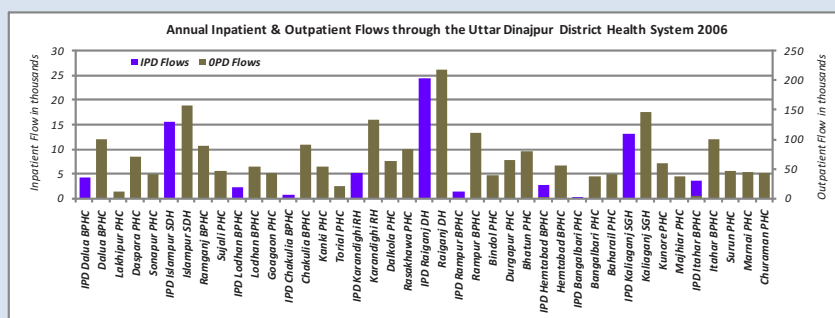
**Table: Out-patient Flows through the Referral Healthcare System in Uttar Dinajpur, 2006**

Sub-region	Health Facility	J	F	M	A	M	J	J	A	S	O	N	D	Annual OPD Flows
Chopra	Total	15772	14416	20131	17054	17051	23113	22650	20352	20585	21392	16798	13465	222779
	Dalua BPHC	5942	6848	8508	8033	6740	10490	11005	10188	8792	9893	7373	5984	99796
	Laxmipur PHC	738	801	908	839	854	910	899	1181	1821	890	977	1175	11993
	Daspara PHC	5793	3751	6878	5337	6332	7653	5755	6345	6540	7046	5210	4265	70905
	Sonapur PHC	3299	3016	3837	2845	3125	4060	4991	2638	3432	3563	3238	2041	40085
Islampur	Total	18363	20687	23406	25417	24249	28482	28941	29245	25257	25122	26503	18718	294390
	Islampur SDH	8340	9795	12692	13463	13909	15835	17416	16985	13504	12742	14037	9060	157778
	Ramganj BPHC	6973	7467	7204	8254	7200	8117	6700	8160	7693	7200	7846	6958	89772
	Sujali PHC	3050	3425	3510	3700	3140	4530	4825	4100	4060	5180	4620	2700	46840
Goalpokhar-1	Total	5620	6722	8526	7654	7934	8330	9239	8576	8597	9137	7588	8284	96207
	Lodhan BPHC	2262	3220	4860	4366	4606	4918	5783	5208	5291	5575	4154	3721	53964
	Goagaon PHC	3358	3502	3666	3288	3328	3412	3456	3368	3306	3562	3434	4563	42243
Goalpokhar-2	Total	10141	11395	14817	13892	12731	15778	15195	15939	14228	16429	13032	10144	163721
	Chakulia BPHC	5712	5717	8158	6630	6812	9360	8940	9331	8825	9524	6696	5045	90750
	Kanki PHC	3396	3658	4874	4691	4409	4630	5052	4913	3803	4978	4921	4136	53461
	Torial PHC	1033	2020	1785	2571	1510	1788	1203	1695	1600	1927	1415	963	19510
Karandighi	Total	19692	23507	24266	23301	22648	25075	27761	28415	22883	21451	20292	17354	279645
	Karandighi RH	8190	10363	10656	10084	9945	12157	14658	14041	12227	10917	9876	10012	133126
	Dalkola PHC	4723	6021	5628	5541	5601	5979	5838	6263	4188	4085	4728	1636	63231
	Rasakhawa PHC	6779	7123	7982	7676	7102	6939	7265	8111	6468	6449	5688	5706	83288
Raiganj	Total	37235	39565	53311	39524	38477	48166	46462	45079	43674	41076	46320	35765	513854
	Raiganj DH	15545	19312	23634	15381	15545	17172	22379	18189	18084	17019	20265	15685	218210
	Rampur BPHC	6404	9118	10706	9974	9972	11679	10004	9367	9915	8674	9189	7231	111433
	Bindol PHC	2548	2548	3829	2655	2338	4012	3743	5050	3631	3733	3242	2155	39484
	Durgapur PHC	4804	4061	6479	5271	4599	6690	4523	6041	5641	6342	6088	4952	65491
	Bhatun PHC	7934	4526	8663	6243	6023	8613	5813	6432	6403	5308	7536	5742	79236
Hemtabad	Total	9957	9130	12216	11991	8616	12272	13202	11169	10224	13802	11219	8118	131916
	Hemtabad BPHC	4513	3939	5352	4469	3515	5565	5641	4550	4588	5266	4395	3078	54871
	Bangalbari PHC	2544	2749	3464	3822	2357	2359	3112	3087	2364	4872	3783	2552	37065
	Baharail PHC	2900	2442	3400	3700	2744	4348	4449	3532	3272	3664	3041	2488	39980

**Table: Out-patient Flows through the Referral Healthcare System in Uttar Dinajpur, 2006 (Contd.)**

Subregion	Health Facility	J	F	M	A	M	J	J	A	S	O	N	D	Annual OPD Flows
Kaliaganj	Total	15287	16229	21893	16923	26624	21133	24296	21667	21279	22282	18056	15494	241163
	Kaliaganj SGH	8397	9945	12892	9650	19826	12485	13705	12320	13186	13068	10540	9549	145563
	Kunore PHC	4456	3977	5808	4517	4319	5136	6367	6009	4901	5699	4382	3574	59145
	Majhiar PHC	2434	2307	3193	2756	2479	3512	4224	3338	3192	3515	3134	2371	36455
Itahar	Total	16599	14825	22603	17350	14784	21590	26772	21139	19556	22754	19949	15688	233582
	Itahar BPHC	6429	6122	10188	7355	5848	9544	11670	9575	9393	10343	7907	6131	100505
	Surun PHC	3452	3218	4576	3425	2887	4795	4352	3761	3731	4599	4005	2867	45668
	Marnai PHC	3452	2757	3516	3506	3122	3773	5974	4032	3035	4065	4024	2716	43945
	Churaman PHC	3266	2728	4323	3064	2927	3478	4776	3771	3397	3747	4013	3974	43464
<b>Uttar Dinajpur DT</b>	<b>148666</b>	<b>156476</b>	<b>201169</b>	<b>173106</b>	<b>173114</b>	<b>203939</b>	<b>214518</b>	<b>201581</b>	<b>186283</b>	<b>193445</b>	<b>179757</b>	<b>143030</b>	<b>2177257</b>	

Source: Office of the CMOH, Uttar Dinajpur



**Table: In-patient Flows through the Referral Healthcare System in Uttar Dinajpur 2006**

Subregion	First Referral Unit & PHCs covered	J	F	M	A	M	J	J	A	S	O	N	D	Annual IPD Patient Flows
Chopra	Dalua BPHC	121	189	354	439	471	525	462	500	332	295	227	254	4169
	Laxmipur PHC													
	Daspara PHC													
	Sonapur PHC													
Islampur	Islampur SDH	1256	1144	1142	1243	1253	1377	1381	1433	1455	1504	1273	1103	15564
	Ramganj BPHC													
	Sujali PHC													
Goalpokhar-1	Lodhan BPHC	162	144	145	266	300	227	153	130	202	240	170	130	2269
	Goagaon PHC													
Goalpokhar-2	Chakulia BPHC	19	31	27	37	27	39	55	148	115	104	78	32	712
	Kanki PHC													
	Torial PHC													
Karandighi	Karandighi RH	333	309	502	440	447	416	565	516	401	485	378	338	5130
	Dalkola PHC													
	Rasakhawa PHC													

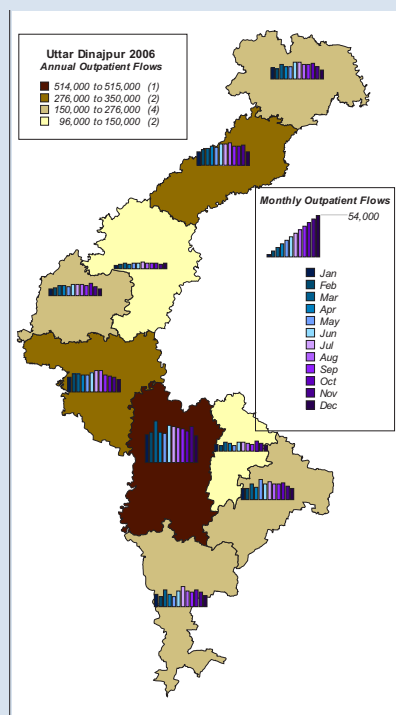
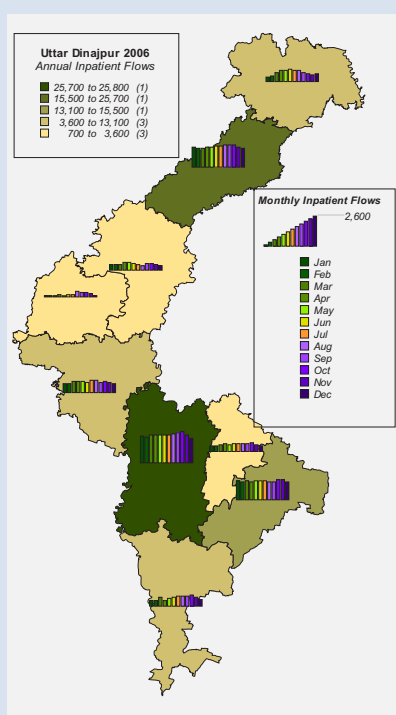


**Table: In-patient Flows through the Referral Healthcare System in Uttar Dinajpur, 2006 (Contd.)**

Sub-region	First Referral Unit & PHCs covered	J	F	M	A	M	J	J	A	S	O	N	D	Annual IPD Patient Flows
Raiganj DH	Raiganj DH	1872	1854	2022	2032	2095	1969	2071	2179	2384	2435	1968	1589	24470
	Rampur BPHC	83	73	87	89	95	183	130	102	71	149	110	86	1258
	Bindol PHC													
	Durgapur PHC													
	Bhatun PHC													
Hemtabad	Hemtabad BPHC	176	164	199	262	183	219	271	231	244	302	221	168	2640
	Bangalbari PHC	11	20	40	32	35	36	25	26	27	23	15	14	304
	Baharail PHC													
Kaliaganj	Kaliaganj SGH	1181	1030	1087	1024	1111	1088	1111	1010	1007	1251	1256	1018	13174
	Kunor PHC					9	12	5	1			1	2	53
	Majhiar PHC													
Itahar	Itahar BPHC	171	187	320	168	269	363	377	386	386	492	314	210	3643
	Surun PHC													
	Marnai PHC													
	Churaman PHC													
<b>Uttar Dinajpur DT</b>		<b>5385</b>	<b>5145</b>	<b>5925</b>	<b>6032</b>	<b>6295</b>	<b>6454</b>	<b>6606</b>	<b>6662</b>	<b>6624</b>	<b>7280</b>	<b>6011</b>	<b>4944</b>	<b>73386</b>

Source: Office of the CMOH, Uttar Dinajpur

**MAP: Regional In-patient & Out-patient Flows in Uttar Dinajpur**



Inpatient care in Uttar Dinajpur suffers considerably from the limited availability of hospital beds relative to the size of the district population. Against the current WHO norms of 3 beds per 1000 and the national target of attaining the bed-availability norms of 1 bed per 1000 by the year 2012, bed availability in Uttar Dinajpur in 2004 averaged 0.17 per 1000 persons on the projected 2004 population. Bed availability in West Bengal as a whole in 2004 was around 0.8 per 1000, but was considerably higher in Kerala (2.3 per 1000) and Maharashtra (1.5 per 1000). Low urbanisation rates in Uttar Dinajpur are partially responsible for low hospital bed availability, since in India as a whole, hospital bed availability was 0.7 per 1000 but was markedly lower at 0.19 per 1000 in rural areas [National Health Profile 2006]. Inpatient care in Uttar Dinajpur also suffers from wide intradistrict differentials in hospital bed availability, with bed availability per 1000 persons touching a low of 0.06 in Chopra and 0.08 in Goalpokhar-1, but improving substantially, because of the presence of the referral hospitals, to 0.22 in Islampur block, 0.24 in Kaliaganj and 0.33 in Raiganj block. Given such figures, it is obvious that the key to improvement in the health situation in Uttar Dinajpur will lie in the rapid upgradation of rural inpatient facilities, which would also have a telling effect in raising IP:OP ratios across the district.

As is evident from the accompanying regional maps, Raiganj and Islampur blocks currently account for the heaviest IP flows in Uttar Dinajpur, while Goalpokhar-1 and Goalpokhar-2 generate the lowest IP and OP flows because of existing weaknesses in their primary healthcare and communications networks. In terms of the intensity of overall OP flows, Raiganj and Islampur are also joined by Karandighi. While Chopra, Kaliaganj and Itahar occupy broadly similar positions in terms of the overall volume of outpatients, Kaliaganj stands well ahead of these other blocks in terms of the volume of inpatients. In general, both inpatient and outpatient flows are much higher in the densely settled southern blocks Raiganj SD and Karandighi, compared to the sparsely settled blocks located to the district's north.

### Health System Performance in Uttar Dinajpur

Inpatient care requiring hospitalisation is presently provided through 9 public healthcare institutions located in Uttar Dinajpur, which include five 15-25 bedded block hospitals at BPHC level serving Chopra, Goalpokhar-1, Goalpokhar-2, Hemtabad and Itahar blocks, one 30 bedded block hospital at RH level serving Karandighi, two 60-68 bedded SGH/SDH referral hospitals serving Kaliaganj and Islampur blocks as well as the rest of their respective subdivisions, and the 168 bedded District Hospital which serves the city of Raiganj as well as Raiganj block, besides providing secondary referral for the whole district. In 2007, these public hospitals collectively provided healthcare services to 12.20 lakh OP patients and 0.71 lakh IPD patients. Among the IPD patients in Uttar Dinajpur, as many as 0.66 lakh (92%) represented emergency admissions, while for West Bengal as a whole, the corresponding ratio of emergency admissions to total admissions at block hospitals, rural hospitals, SDH and SGH hospitals and district hospitals was distinctly lower at around 86 percent. Thus with its limited bed strength being overwhelmed by patient pressure, the public health system in Uttar Dinajpur is left with little slack to provide IPD services to other non-emergency patients whose condition might also warrant hospitalisation. Besides offering inpatient care, the Uttar Dinajpur public hospitals also extended non-residential services to another 0.75 lakh emergency patients in 2007. The annual volume of patients collectively handled at all public hospital institutions across the district thus amounted to approximately 12.91 lakh, at an average daily inpatient census rate of 196 IPD patients per day and daily attendance of 3343 patients per day at the OPD wings.

At the BPHC level, rural IPD facilities are mainly designed to handle normal maternity cases, minor surgery and emergencies, while RH hospitals are somewhat better equipped. Yet although the bed availability in ratio to the block population is roughly similar between the BPHCs at Dalua, Lodhan, Chakulia and Itahar, and is considerably better at Hemtabad BPHC which has a low block population, the OPD and IPD flows

were visibly higher at Dalua and Itahar than at Lodhan, Chakulia and Hemtabad. While the difference in IPD admissions between Karandighi RH and Itahar BPHC was relatively minor, total admissions were in fact much higher at Dalua BPHC which has fewer beds than either of these institutions. Fewer emergency patients however attended Dalua, Karandighi RH and Hemtabad BPHC, while Lodhan, Chakulia and Itahar received a considerably larger number. Among the rural hospital institutions, Dalua thus accounts for the largest number of ordinary and emergency admissions. However, since its rate of outward referrals also considerably surpasses those at the other rural facilities, Dalua recorded a relatively low average daily census of 8.3 inpatients per day, beaten only by Chakulia BPHC with a lower daily census of 7.8 inpatients per day. However, the causes of such relatively low bed utilisation were quite dissimilar. While Dalua received more emergency inpatients than it could handle and referred large numbers of them to other health institutions, Chakulia received fewer inpatients on the whole. In contrast, the other rural institutions all had higher daily census rates despite admitting fewer general and emergency IPD patients, because of lower outside referrals and lengthened durations of stay.

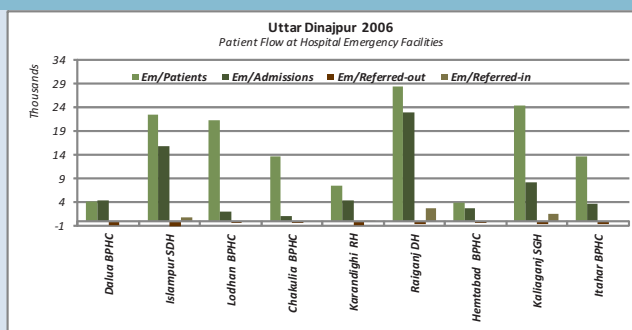
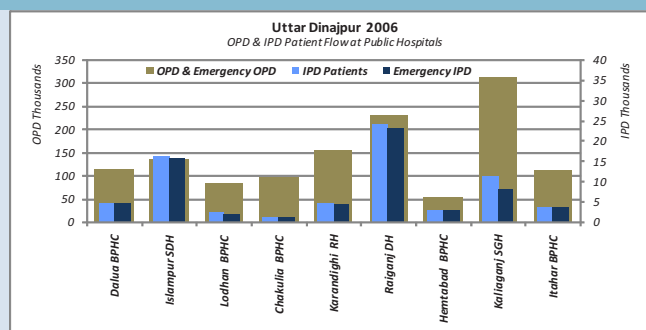
Among the FRUs and the secondary referral hospital at Raiganj, OPD attendance was much lower at Islampur SDH than at either Kaliaganj SGH or Raiganj DH. However, given the relatively favourable availability of inpatient beds, Kaliaganj SGH had a distinctly low rate of emergency and total admissions than either Islampur SDH or Raiganj SGH, accounting for the lowest daily inpatient census among the referral hospitals in this group. While the patterns of outward and inward referrals were on expected lines at Raiganj DH and Kaliaganj SGH, outward referrals from Islampur SDH surpassed the number of inward referrals. Clearly, this was in partial response to the crowding at the SDH, which has to handle substantially more inpatients than Kaliaganj SGH.

**Table: Patient Flows & Admissions at Public Hospital Institutions in Uttar Dinajpur, 2006**

CD Block/Health Unit	Total Beds*	Total Inpatient-Days	Average Daily Census	Total Outpatients	Total Admissions	Emergency Patients	Emergency Referrals Out	Emergency Referrals In	Total Emergency Admissions
Chopra/Dalua BPHC	20	3020	8.3	113761	4716	4257	715	-	4479
Islampur/Islampur SDH	68	53909	147.7	128334	16231	22686	950	854	15815
Goalpokhar-1/Lodhan BPHC	15	3673	10.1	65856	2359	21485	320	-	2156
Goalpokhar-2/Chakulia BPHC	15	2835	7.8	84788	1154	13739	85	-	1154
Karandighi/Karandighi RH	30	7485	20.5	151497	4654	7586	699	72	4402
Raiganj/Raiganj DH	168	77041	211.1	226699	24310	28431	484	2888	23106
Hemtabad/Hemtabad BPHC	20	3279	9.0	53197	2923	4084	208	-	2901
Kaliaganj/Kaliaganj SGH	60	17170	47.0	294720	11247	24429	606	1581	8179
Itahar/Itahar BPHC	25	4044	11.1	101427	3758	13742	432	-	3758
<b>Uttar Dinajpur DT</b>	<b>421</b>	<b>172456</b>	<b>472.5</b>	<b>1220279</b>	<b>71352</b>	<b>140439</b>	<b>4499</b>	<b>5395</b>	<b>65950</b>

\*exclusive of 30 PHC beds

Source: State Bureau of Health Intelligence [SBHI], Directorate of Health Services, GoWB



While collectively attending to around 54 percent of the OPD and emergency patients in Uttar Dinajpur, the two FRUs and Raiganj DH accounted for approximately 72 percent of the total inpatients and emergency admissions, and for 86 percent of the total inpatient days of care in 2007. Along with two thirds of the pathological tests, virtually all of the electromagnetic imaging tests and all major surgeries are performed at these referral hospitals. However, the BPHCs and Karandighi RH collectively account for well over a fifth of the institutional deliveries that take place at public hospitals in the district. Despite receiving nearly a quarter of the total OPD outpatients, 29 percent of inward referrals and over 17 percent of the emergency patients, the share of Kaliaganj SGH in emergency admissions, pathological tests and major surgeries remains relatively small, indicating that a reasonable level of slack still exists at Kaliaganj, not found anywhere else at other public hospitals in the district.

Thus, of the 5402 non-emergency patients admitted into inpatient care facilities at public hospitals in Uttar Dinajpur in 2007, as many as 3068 (57%) were therefore admitted at Kaliaganj SGH, at a low emergency to total admissions ratio of 73 percent. All other public inpatient facilities in Uttar Dinajpur have much higher emergency to total admissions ratios ranging between 91 percent (Dalua) to 100 percent (Chakulia, Itahar), while at the other full-fledged referral hospitals, the ratio touches 95 percent (Raiganj DH) and 97 percent (Islampur SDH). Besides attending to the largest number of outpatients in the district, Kaliaganj SGH also receives the second-highest number of emergency patients exclusive and inclusive of net referrals, after Raiganj DH. However, the rate of emergency inpatient admissions in response to this flow is distinctly lower at Kaliaganj compared to Raiganj DH. Kaliaganj SGH is thus able to draw some of the OPD healthcare pressure away from Raiganj DH, since it is located fairly close to Raiganj. Islampur SDH, in contrast, is located too far away from the other referral hospitals for current pressures on its OPD and IPD facilities to be similarly relieved. It thus has to cope with very high system loads from patients drawn from all over Islampur SD, and records an emergency to total admissions rate of 97 percent which significantly exceeds the corresponding rates at other major referral hospitals in Uttar Dinajpur. With only 68 inpatient beds, Islampur SDH handles approximately one third of the emergency inpatients and total inpatients that are received by the three major referral hospitals, and attends to 36 percent of the deliveries and 50 percent of the major surgeries performed at these facilities. Overall pressure on the referral hospital system is thus considerably higher in Islampur SD than in Raiganj SD.

With such heavy regional inpatient loads being borne by public hospital facilities in Uttar Dinajpur, the District Health authorities have to manage the flows of OPD and emergency patients and inpatient admissions in a way that best matches the current intake capacity of the hospital system. Where the fit is not perfect, the stresses within the system begin to show in hospital performance indicators for various public healthcare institutions. Analysis of these helps in identifying some of the most pressing healthcare problems that confront the district today.

**Table: Patient Services & Procedures at Public Hospital Institutions, 2006**

CD Block/Health Unit	Total Admissions	Total X-rays	Total USGs	Total Lab Tests	Total Deliveries	Major Surgeries	Total Patient Discharges	Total Discharges [incl deaths]
Chopra/Dalua BPHC	4716	-	-	17874	574	-	4144	4162
Islampur/Islampur SDH	16231	3861	2004	34321	4180	2749	13657	14227
Goalpokhar-1/Lodhan BPHC	2359	-	-	4966	263	-	1680	1687
Goalpokhar-2/Chakulia BPHC	1154	-	-	3890	293	-	923	944
Karandighi/Karandighi RH	4654	1217	-	6227	900	-	3975	4061
Raiganj/Raiganj DH	24310	7400	1977	45159	4810	2678	21538	22046
Hemtabad/Hemtabad BPHC	2923	-	-	1060	615	-	2844	2860
Kaliaganj/Kaliaganj SGH	11247	4512	-	5974	2544	42	10069	10193
Itahar/Itahar BPHC	3758	-	-	12194	656	-	3516	3519
<b>Uttar Dinajpur DT</b>	<b>71352</b>	<b>16990</b>	<b>3981</b>	<b>131665</b>	<b>14835</b>	<b>5469</b>	<b>62346</b>	<b>63699</b>

Source: State Bureau of Health Intelligence [SBHI], Directorate of Health Services, GoWB

The three most important performance indicators for the hospital system are the bed turnover rate [BTR], the bed occupancy rate [BOR], and the average length of stay [ALOS] of inpatients admitted to the public hospitals. Measured as the percentage of total inpatient discharges to total beds available at each hospital institution, BTRs that exceed 100 percent indicate that more discharges are taking place than there are beds, obviously because the number of inpatient admissions has previously exceeded the number of available beds. BTRs that exceed 200 percent thus indicate gross overcrowding of the hospitals, which are currently having to handle more than twice the maximum inpatient loads they were originally designed for. The BORs for each hospital are measured as the percentage proportion of the average daily census of inpatients to the total beds available at each institution. BORs in excess of 100 percent indicate a high level of crowding at IPDs, resulting in more inpatients being admitted than the existing provision of beds. The excess load is managed in such cases by double occupancy of existing beds or by accommodating excess inpatients who cannot be provided individual beds on makeshift bedding arrangements laid out on the ward floors. Obviously, either of these arrangements have to be made under the compulsion of emergency situations when the excess patients require immediate medical attention and cannot be turned away. In practice, excess patient loads can also be managed by early discharge of the admitted patients, thus shortening the average duration of the inpatient's stay at the hospitals. This shows up simultaneously in low average ALOS ratios, in increased BTRs because early discharges and shortened inpatient stays enhance the patient turnover on existing hospital beds, and in higher BORs because the multiplication of inpatient admissions and the shortening of their average stay also results in higher rates of occupancy of existing hospital beds.

Analysing BTR, BOR and ALOS rates for Uttar Dinajpur as whole, it becomes immediately clear that the public hospital system in the district is carrying an almost unmanageable inpatient load. Bed turnover and bed occupancy rates in Uttar Dinajpur surpass the BTRs and BORs for all BPHCs, RH, SDH/SGH and DH hospitals in West Bengal by a considerable proportion, while the average duration of inpatient care received

in the Uttar Dinajpur public hospitals is much shorter than in the rest of the state. At a disaggregated level, the BTRs for Dalua, Hemtabad and Itahar BPHCs and Karandighi RH compare unfavourably with the BTRs for rural BPHCs and RH hospitals in West Bengal as a whole, while the BTRs at Lodhan and Chakulia are much lower in comparison. However, bed occupancy at the Uttar Dinajpur BPHCs and Karandighi RH are all considerably than the BORs for corresponding public health institutions in West Bengal, and the bed occupancy at BPHC level are lowest at Dalua, Itahar and Hemtabad which also record the highest inpatient admissions among BPHC institutions. At the other BPHCs at Chakulia and Lodhan where inpatient admissions are comparatively low relative to the number of available beds, bed occupancy rates improve considerably because of the longer duration of inpatient stays. Clearly therefore, the high BTRs at Dalua, Hemtabad and Itahar are caused by high crowding levels that compel the early discharge of inpatients from their beds and reduce BORs, in comparison to which the less crowded BPHCs at Chakulia and Lodhan have lower BTRs, higher BORs and longer ALOS. Karandighi RH is a larger rural hospital facility with more beds and more inpatient services available, compared to the BPHCs. The average daily census is also relatively high at Karandighi RH at 20.5 inpatients per day even though the average duration of inpatient stays amounts to 1.8 days. Consequently, because of sustained inpatient pressure, bed turnover remains high but bed occupancy improves substantially compared to the BPHCs.

**Table: Hospital Performance Indicators for the Public Health System in Uttar Dinajpur, 2006**

Health Unit	Bed Turn-over Rate [BTR] [%]	Bed Occupancy Rate [BOR] [%]	Average Length of Stay [ALOS] [days]	Outpatients per Bed-day	Referrals Out to Patient Discharges [%]	Referrals In to Total Inpatients [%]	Major Surgeries to Admissions [%]	Deliveries to Admissions [%]	Emergency Outpatient Ratio	Emergency Admission Rate [%]
Dalua BPHC	208.1	41.4	0.7	15.6	17.3	-	-	12.2	0.04	105.2
Islampur SDH	209.2	217.2	3.8	5.2	7.0	5.3	16.9	25.8	0.18	69.7
Lodhan BPHC	112.5	67.1	2.2	12.0	19.4	-	-	11.1	0.33	10.0
Chakulia BPHC	62.9	51.8	3.0	15.5	9.2	-	-	25.4	0.16	8.4
Karandighi RH	135.4	68.4	1.8	13.8	17.7	1.7	-	19.3	0.05	58.0
Raiganj DH	131.2	125.6	3.5	3.7	2.2	11.9	11.0	19.8	0.13	81.3
Hemtabad BPHC	143.0	44.9	1.1	7.3	7.3	-	-	21.0	0.08	71.0
Kaliaganj SGH	169.9	78.4	1.7	13.5	6.0	14.1	0.4	22.6	0.08	33.5
Itahar BPHC	140.8	44.3	1.1	11.1	12.3	-	-	17.5	0.14	27.3
<b>Uttar Dinajpur DT</b>	<b>151.3</b>	<b>112.2</b>	<b>2.7</b>	<b>7.9</b>	<b>7.2</b>	<b>7.6</b>	<b>7.7</b>	<b>20.8</b>	<b>0.12</b>	<b>47.0</b>
WB BPHCs	131.8	76.9	2.1	12.7	15.5	1.6	2.6	19.7	0.10	26.0
WB RHs	125.1	91.4	2.7	7.2	16.4	19.7	1.5	19.7	0.11	44.8
WB SDHs/SGHs	91.1	88.6	3.5	2.5	10.2	3.1	7.8	19.0	0.18	58.5
WB DHs	91.4	91.0	3.6	1.6	6.4	10.8	9.9	18.2	0.22	66.3

Source: State Bureau of Health Intelligence [SBHI], Directorate of Health Services, GoWB

NOTE: Calculation of Hospital Performance Rates/Ratios

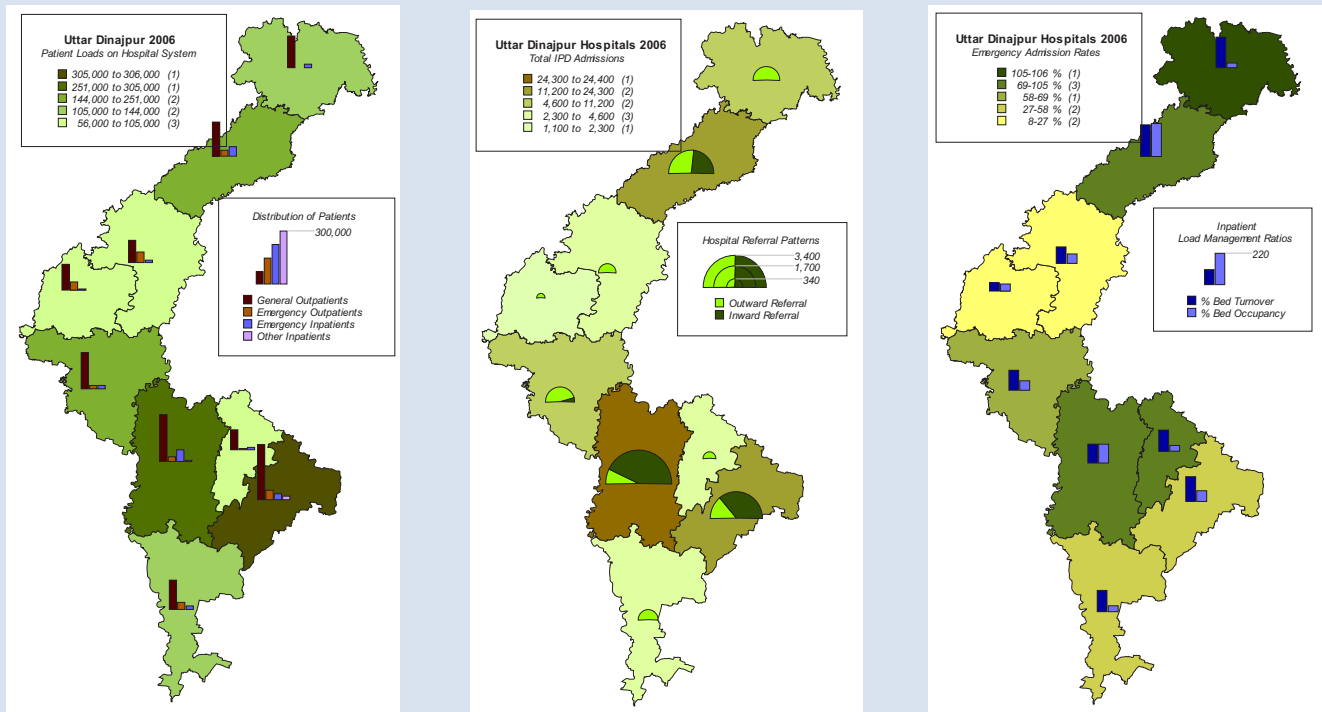
Bed Turnover Rate [BTR %]	=	Total Discharges ÷ Total Beds x 100
Bed Occupancy Rate [BOR %]	=	Average Daily Census ÷ Total Beds x 100
Average Length of Stay [ALOS in Days]	=	Total Inpatient Days ÷ Total Patient Discharges
Outpatients per Bed-day [Number]	=	[Total Outpatients ÷ (Total Beds x Annual Days of Availability)] x 100
Referral Out to Patient Discharges [%]	=	Total Cases Referred Out ÷ Total Patient Discharges x 100
Referrals In to Total Inpatients [%]	=	Total Cases Referred In ÷ Total Admissions x 100
Major Surgeries to Admissions [%]	=	Major Surgeries ÷ Total Admissions x 100
Deliveries to Admissions [%]	=	Total Deliveries ÷ Total Admissions x 100
Emergency Outpatient Ratio	=	Emergency Patients ÷ Total Outpatients
Emergency Admission Rate [%]	=	Total Emergency Admissions ÷ Emergency Patients x 100

Among the referral hospitals, Islampur SDH faces astoundingly high pressure on its inpatient services, resulting in high bed turnover as well as high bed occupancy with BTRs and BORs exceeding 200 percent. At 3.8 days, the ALOS is also the highest recorded among all referral hospitals in Uttar Dinajpur. The clear implication is that overcrowding of inpatient facilities at this relatively isolated public hospital is currently being managed through excess admissions that considerably overstretch ward capacities. Virtually all inpatients admitted at Islampur SDH know that they are unlikely to be offered individual bed accommodation at any point during their stay. No other SDH or SGH in West Bengal records BTRs and BORs at this level, and at Kaliaganj SGH, the bed turnover and bed occupancy is considerably better than at Islampur SDH even though the BTR there remains relatively high at around 170 percent. At 1.7 days, ALOS at Kaliaganj SGH, is however, distinctly low compared to the other referral hospitals in Uttar Dinajpur, and is much shorter than the comparable ALOS of 3.5 days for all SDH/SGH hospitals in West Bengal. This appears to be closely related to the relatively high slack at Kaliaganj SGH, seen earlier in the low figures for emergency admissions and low shares in IME and pathological tests at the SGH hospital, which presently functions as an additional public referral hospital for Raiganj SD relieving some of the pressure that would otherwise fall on Raiganj DH. The need to provide similar relief for Islampur SD has obviously become urgent, which can be done either by upgrading Islampur SDH to a DH level hospital facility, or by establishing another SGH level hospital offering the full spectrum of referral services at the new municipality at Dalkola, which is conveniently located in relation to regional transportation links and can draw inpatients from Karandighi as well as the two Goalpokhar blocks.

Raiganj DH too is not free of such crowding pressures. While the rates of bed turnover and bed occupancy there considerably surpass the BTRs and BORs for comparable DH hospitals in West Bengal, the ALOS duration is also longer at Raiganj DH than at comparable hospital institutions in the state. The root of such problems is the low bed capacity of the District Hospital, which caters to a large district population but is the smallest DH facility in the state, where 7 districts are served by DH facilities with over 500 beds and 6 other districts have DH hospitals with 300-495 beds. Thus the status of Raiganj DH as a District Hospital is nominal, since it continues to operate with bed capacity and infrastructure of a large SGH level hospital facility. With a bed capacity of 168, Raiganj DH recorded an average daily census of over 211 inpatients per day throughout 2007, leading to excessively high BTR and BOR for a secondary referral facility. Since over 95 percent of the IPD patients received there represent emergency admissions, the hospital authorities have no other alternative but to admit them by stretching the intake till it surpasses bed capacity, telling upon the overall quality of healthcare delivered to all patients.

There is thus a systemic mismatch between the different components of the public healthcare system in Uttar Dinajpur, indicated by the evident collapse of the referral system at the SDH/SGH and DH institutions. Although all referral hospitals cater to sizeable volumes of inpatients, the proportion of inpatients coming in on referral to total inpatient admissions at Islampur SDH is much lower than the comparable West Bengal average for SD/SGH hospitals, while at Kaliaganj SGH and Raiganj DH, it exceeds the comparable state averages. Thus in comparison to other equivalent hospital institutions in the state, more inpatients are admitted at Islampur SDH on direct self-referral while fewer inpatients are admitted through the referral chain, indicating the weaknesses of the referral system as well as intrinsic deficiencies in the IPD facilities available at RH and BPHC level public hospitals in Islampur SD. At Kaliaganj SGH and Raiganj DH, the position is precisely the opposite. The two referral hospitals thus cater to a much larger proportion of inward referrals than other equivalent hospitals in the state, and are either unwilling (Kaliaganj) or unable (Raiganj) to handle patients coming in directly without passing through the referral chain. At Kaliaganj SGH therefore, the emergency admission rate is much lower than the emergency admission rates at Islampur SDH and Raiganj DH which considerably surpass the equivalent state averages. Similarly, the emergency outpatient ratios fall below the state averages at Kaliaganj SGH, while surpassing them at Islampur SDH and Raiganj DH. At almost all public hospitals in Uttar Dinajpur except Dalua and Lodhan BPHCs, the focus of inpatient admissions is visibly towards obstetric care, as a result of which the proportion of deliveries to inpatient admissions at these institutions exceed the comparable averages for the state.

## MAP: OPD & IPD Flows within the Public Hospital System in Uttar Dinajpur



The associated regional maps summarise the pressures and performance attributes of the public healthcare system in the district. Regional OPD & IPD patient loads and regional IPD admission patterns in different parts of Uttar Dinajpur are broadly similar, with Raiganj carrying the highest system loads in the district, followed by Kaliaganj and Karandighi on its peripheries. Itahar and Hemtabad do not have referral institutions beyond the block hospital level and hence feel less pressure on their healthcare facilities. In the rest of



Islampur SD, the pressure from patient loads is overwhelmingly borne by Islampur SDH, since neither Chopra nor Goalpokhar-1 and Goalpokhar-2 have referral institutions other than the rural BPHCs. OPD patients currently comprise a larger proportion of the patient loads within Raiganj SD, while their presence is proportionately small in Islampur SD, particularly in the two Goalpokhar blocks. As seen earlier, this difference is caused by relative weaknesses in the communication links and SHC-PHC referral chains in the Islampur SD blocks. High emergency outpatient ratios at Lodhan and Chakulia which surpass the state averages for BPHCs considerably also corroborate that a large proportion among the patients attending the OPD wings of Goalpokhar-1 and Goalpokhar-2 BPHCs represent emergency patients. However, with inpatient admissions being low in the other blocks, most of this pressure is borne through self-referrals at Islampur SDH. Although the OPD flows at public hospitals in the Raiganj SD blocks are better distributed, the bulk of the responsibility for inpatient care has to be carried by Raiganj DH.

Only four public hospital institutions in Uttar Dinajpur receive inward referrals, among which Karandighi RH receives a relatively minor share. While Kaliaganj SGH is able to absorb some of the referrals, the major portion of the referrals are handled at Raiganj DH. Without an intermediating institution in its vicinity, Islampur SDH on the other hand has to refer out almost as many cases as are referred in. The major portion of the outward referrals originate in Islampur SD, with Chopra, Islampur and Karandighi contributing the main share. Since relatively few patients attending the BPHCs at Goalpokhar-1, Goalpokhar-2, Hemtabad and Itahar are formally referred out. A large proportion of the IPD patients attending Islampur SDH, Kaliaganj SGH and Raiganj DH are self-referred. Emergency admission rates are highest at Chopra, followed by Raiganj, Hemtabad and Islampur. However, while Islampur SDH and Raiganj DH cope with these additional pressures through multiple occupancy, raising both BTRs and BORs, the other public hospital institutions in the district that face this pressure cope by increasing short discharge rates, raising BTRs while lowering BORs and ALOS rates. Chopra presents an extreme example, with very high BTR and a relatively modest BOR. Chakulia BPHC in Goalpokhar-2 block faces the lowest inpatient pressure and is able to handle this at relatively moderate BTR and BOR rates.

### Staffing Constraints & Health Service Delivery

Persisting staffing shortages, stretching all the way from the SHCs up to Raiganj DH, are another important reason for the relatively weak state of health service delivery in Uttar Dinajpur. Against 344 sanctioned posts of ANMs/female health assistants at the SHCs, 26 positions (7.5%) are currently vacant. Staff shortage reaches critical levels in case of the 304 sanctioned posts of male health assistants at the SHCs, with only 90 incumbents in position and vacancies in as many as 214 (70.4%) posts. Under the current staffing patterns where the auxiliary male and female health staff at the SHCs are assigned largely complementary functions, the absence of 26 female health staff would bring immunisation, MCH and attended delivery services at least 26 SHCs to a virtual standstill, adversely affecting a rural population of over 1.75 lakh. Similarly, with more than two-thirds of the SHCs in Uttar Dinajpur having to depend on the services of a single female staff member because of high vacancy rates among male staff, the performance of a host of auxiliary community health activities including school health programmes, environmental sanitation and water quality monitoring, as well as the reliability of the recording of vital events, malaria & TB screening procedures, disease surveillance as well epidemic control would be severely compromised in most rural areas of the district.

The critical link between the PHCs and SHCs in the delivery of rural healthcare depends on the supervisory cadre of Lady Health Visitors [LHVs] and male health supervisors (designated usually as senior health assistants in states outside West Bengal), who are expected to visit the SHCs under their supervision on a regular basis to monitor and assist the performance of all assigned public health activities, including RCH

and safe deliveries. Among 68 sanctioned posts of female health supervisors/LHVs in Uttar Dinajpur, 7 positions (10%) percent are currently vacant against vacancies in 2 positions (75) among the 30 sanctioned posts of male health supervisors. Although precise information on the regional distribution of these vacancies is unavailable, high vacancy rates of this order would severely weaken the rural healthcare delivery chains in at least a third PHCs in Uttar Dinajpur and their associated networks of SHCs, since each member of the supervisory cadre has to oversee multiple SHCs attached to the PHC and personally supervise the activities of their rural health workers. Quite clearly therefore, these staffing vacancies at the very base of the primary healthcare system in the district have significantly affected rural health performance in Uttar Dinajpur.

As the consolidated table for sanctioned health staff posts and vacancies at the Uttar Dinajpur BPHCs, PHCs and SHCs and Kaliaganj SGH indicates, 424 out of 1413 health service positions at these institutions are currently vacant, at an overall vacancy rate of around 30 percent. In numerical terms, the largest number of current vacancies are in the lower service cadres of SHC health assistants, Group D general duty attendants [GDAs] and sweepers, as well as staff nurses, which collectively account for 85 percent of all vacant positions. Vacancies at the level of staff nurses and GDAs have a critical character since they directly affect the quality of OPD and IPD care at the BPHCs and Kaliaganj SGH. All sanctioned posts of block sanitary inspectors [BSIs] at these institutions are currently vacant, with their functions being temporarily assigned to senior health supervisors. Since each BSI has key public health functions in directly ensuring the maintenance of sanitary conditions at all commercial and public establishments in the block, the safeguarding of environmental sanitation and water quality and in epidemic control, the vacancies at this level have critical significance for Uttar Dinajpur. Critical vacancies also exist in the positions of social welfare officers [SWOs] at 4 BPHCs, affecting the counselling and personal monitoring of OPD patients who often require specific advice on follow-up visits and further care. A large proportion of the technical positions are also vacant at the BPHCs, seriously limiting the provision of X-ray and pathological services to patients. Nearly half the PHCs in the district function without a pharmacist, affecting the distribution of essential medication to patients.

**Table: Health Department Staff Positions & Vacancies in Uttar Dinajpur, 2007  
Kaliaganj SGH, Block PHCs, PHCs & SHCs**

Staff Designations	Sanctioned Positions	Regular Postings	Contractual Postings	Vacant Positions
Medical Officers	40	32	5	2
Specialist Doctors	6	3	-	3
Dentists	11	4	-	6
Staff Nurses	150	117	-	33
Pharmacists	19	10	-	9
Laboratory Technicians	19	13	1	6
X-Ray Technicians	10	2	-	7
Paramedical Ophthalmic Assistants	10	4	3	2
ECG Technician	1	1	-	-
Block Sanitary Inspectors	10	0	-	10
Public Health Nurses	18	17	-	1

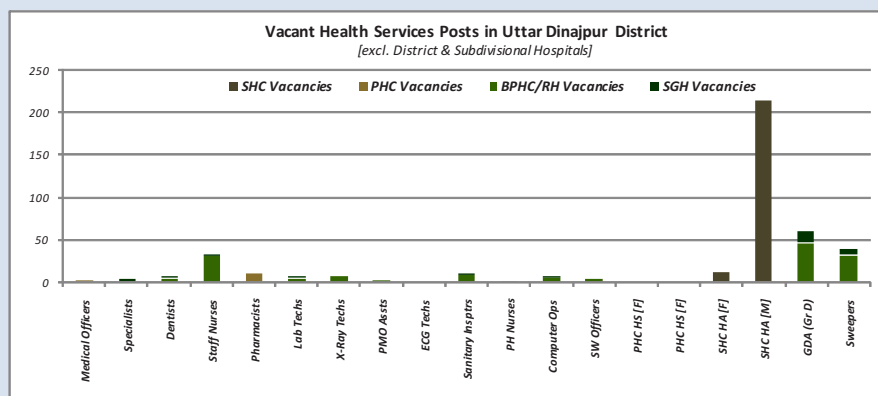
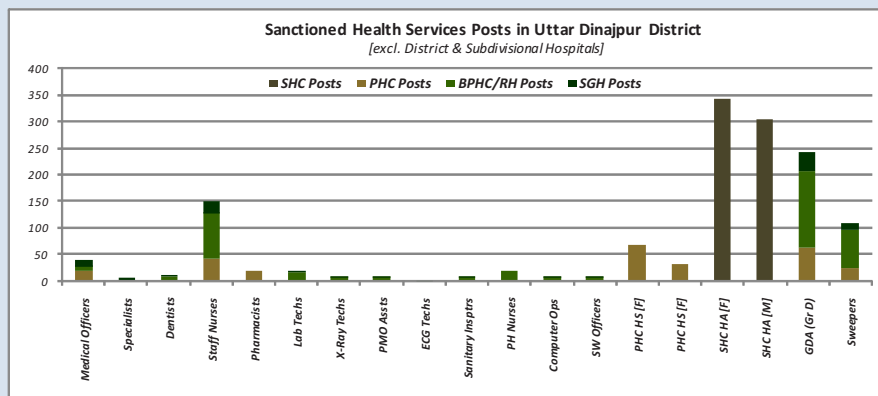
**Table: Health Department Staff Positions & Vacancies in Uttar Dinajpur, 2007**  
**Kaliaganj SGH, Block PHCs, PHCs & SHCs (Contd.)**

Staff Designations	Sanctioned Positions	Regular Postings	Contractual Postings	Vacant Positions
Computer Operators	10	3	-	7
Social Welfare Officers	10	5	-	4
Female Health Supervisors/LHVs*	68	61	-	7
Male Health Supervisors*	30	28	-	2
Female Health Assistants/ANMs**	344	332	-	12
Male Health Assistants**	304	90	-	214
General Duty Attendants (Group D)	243	183	-	60
Sweepers	110	71	-	39
<b>Total Health Staff Positions</b>	<b>1413</b>	<b>959</b>	<b>9</b>	<b>424</b>

\*designated as Sr. Health Assistants/Health Visitors at PHCs in some states

\*\*designated as Jr. Health Assistants or Health Workers at SHCs in some states

Source: Uttar Dinajpur District Health Plan, 2007



While critical vacancies in the positions of dentists and paramedical ophthalmic assistants [PMOAs] deny essential dental and ophthalmic care to the patients of at least 5 affected BPHCs, persisting vacancies in the positions of medical officers and specialist doctors have the most disturbing implications for the state healthcare system in Uttar Dinajpur, since the delivery of most essential public healthcare and clinical services become infructuous without the essential presence of qualified doctors. Of the 19 PHCs, 7 do not have permanently appointed MOs. In five of these, the vacancies in this position have been filled on contract. However, in another two PHCs and their associated SHC networks, the entire chain of clinical and referral services would fall apart because of these critical vacancies.

Under the present system in West Bengal, no paediatricians, gynaecologists or anaesthetists are being posted at the BPHCs till these are upgraded into RH hospitals with at least 30 beds. Unlike most other West Bengal districts, Uttar Dinajpur, Dakshin Dinajpur and Coochbehar still have only one hospital each in this category. While Dakshin Dinajpur has a large DH hospital and Coochbehar in addition has several SDH hospitals, all patients requiring attention from specialist doctors have to depend on the single RH and three referral hospitals. Among the latter hospitals, Kaliaganj SGH has no resident surgeon, physician or paediatrician, since these three sanctioned posts are vacant. Thus all SGH patients requiring surgery or specialised paediatric care have to be referred up to Raiganj DH, and the posting of an anaesthetist at the SGH also becomes infructuous.

### **BOX TEXT**

#### **THE VANISHING CADRE OF MALE RURAL HEALTH WORKERS**

The problem of male health staff vacancies at the SHCs has been encountered so frequently in states across India, where the posts usually carry the equivalent designation of multipurpose health workers [MPHWs], that the service has been called a dying cadre. In the other states however, the crisis has not yet reached the same dimensions as in Uttar Dinajpur where over 70 percent of the 304 existing posts are now vacant, turning a corresponding number of SHCs from double-staffed rural health institutions as they were originally intended, into understaffed institutions where a single staff member is expected to carry the workload originally intended for two persons.

The genesis of the problem begins with the decision in 1966 to bifurcate the activities of the Union Ministry of Health into two departments to deal separately with Health and Family Welfare (formerly Family Planning) issues, coinciding with the inception of the externally funded Postpartum Family Planning [PP-FP] programme. Till then, male health staff had been inducted regularly into the State Health services to meet staffing needs during the vertical disease eradication campaigns against malaria, tuberculosis and smallpox that had been at the core of the public health effort after Independence. While the PP-FP programme gave new emphasis to population issues in India, it gradually shifted the focus of national health policy from the provision of efficient public healthcare towards the promotion of MCH based activities. After the Population Council of India had been established in 1970, the male rural health workers who had been holding specialised designations in the vertical programmes were redesignated under the new auxiliary cadre of MPHWs in 1973, when rural SHCs were first launched at the recommendations from the Kartar Singh Committee.

After the disastrous experience of compulsory FP between 1975-76, Population Control and Family Planning were brought into the Concurrent List in 1977 under the changed nomenclature of Family Welfare. This allowed external donor funding to be channeled exclusively into the extension of MCH services through Centrally sponsored schemes [CSS], while public healthcare remained primarily in the

domain of the State Health services, along with the fiscal responsibility for funding and staffing public health institutions. At the rural SHCs, activities of female health workers/ANMs and health supervisors/LHVs were refocused on RCH which moved rapidly to centre-stage, while the role of the male SHC health workers remained unspecified and ill defined with the downgrading of other health activities. Gradually, vacancies began to appear in the male MHPW cadre, which remained unfilled for long lengths of time. With the wilting of public expenditure on health and the fiscal crisis of the states through the 1990s, the problem expanded until, coinciding with the new National Health Policy [NHP] of 2002, the Department of Family Welfare [DoFW] began to provide 100% Central assistance towards the salaries of ANMs and LHVs, while the liability, the salaries of male health workers remained the responsibility of the State Health services. As part of the donor consortium supported sector-wide approach [SWAp], a tradeoff was made through which the 39,554 SHCs established by the State Governments were taken over by DoFW, against the liabilities of 5434 rural FW centres, which would subsequently be borne by the State Governments.

These sequential developments had the perhaps unintended impact of focusing the delivery of public healthcare in rural India around a relatively narrow spectrum of RCH activities. Naturally, MHPWs were not appointed, nor was their absence felt. However, as widely seen through Uttar Dinajpur, the cost has been the inadequate development of primary and referral healthcare infrastructure so that the basic public healthcare services needed to support RCH and other health attainment targets are no longer accessible to vast sections among the rural population. Meanwhile, the return of killer diseases like drug-resistant malaria, tuberculosis and dengue establishes that the high levels of understaffing in the male MHPW cadre extract a huge cost in terms of decreased environmental sanitation and decreased disease surveillance. Public healthcare and RCH are not substitutes, but have to be delivered in close coordination from under the same umbrella.

While detailed staffing data for Islampur SDH and Raiganj DH are not available for the same year, it is fairly evident that the mounting IPD pressures and the rapidly deteriorating BTRs, BORs and other performance parameters at these better-equipped referral hospitals are the product of these infrastructural and staffing deficiencies at other public healthcare institutions in Uttar Dinajpur. The human cost to the district in terms of deteriorating public health safeguards, increasing burden of disease, decreased health surveillance and escalating epidemic risks thus becomes a crucial area of concern. No improvement in the health situation in Uttar Dinajpur can be obtained if the delivery and quality of public healthcare and clinical services does not improve commensurately, so that equal health access is assured to all people and all regions. NRHM has thus opened an important window, through which the district can identify its critical needs once and for all, and remove the infrastructural and staffing deficits that have chiselled away the foundations of equity in public health-care.

A beginning has already been made, with the establishment of a large number of new AWCs and SHCs. However, the present scheme of Central assistance from DoFW does not underwrite the salary cost of male SHC workers and limits the assistance towards establishment costs to an annual rental value of Rs.3000 for SHC premises. For the SHCs to become fully functional units within an efficient public healthcare system, each SHC has to be viable from the start and must be provided the physical establishment and staff to deliver a gamut of clinical, preventive and MCH services according to NRHM norms. Hence the extension of donor assistance does not create room for further withdrawal of the state from the provision of public health-care.

### BOX TEXT

#### RAIGANJ DISTRICT HOSPITAL

When Uttar Dinajpur was reconstituted into a separate district in 1992, the major district level offices and facilities serving erstwhile West Dinajpur that were located in the former headquarter sub-division of Balurghat were inherited by the successor district of Dakshin Dinajpur. This included the 300-bedded Balurghat DH which had formerly provided secondary referral facilities for the undivided district. The new departmental infrastructure for the Uttar Dinajpur district headquarters had to be recreated anew by upgrading the subdivisional facilities that had previously served Raiganj SD. Because of the huge capital investments involved in upgrading the existing infrastructure to the desired level, the process is still incomplete 17 years later. Raiganj DH was designated as the new District Hospital for the reconstituted Uttar Dinajpur district in 1997, but still functions for all practical purposes at the level of a State General Hospital in terms of its current bed and staff capacity, technical equipment and building facilities. It officially has the status of a project hospital since new construction is in progress, and will remain in the transitional state between an SGH and a full-fledged District Hospital until all hospital construction is complete and the requisite technical infrastructure is in place. Dakshin Dinajpur is in a much more favourable position with a full-fledged Grade II DH facility, serving a much smaller district population of 15.04 lakh (Census 2001).

In accordance with current MoHFW norms for Grade II District Hospitals, a district with a population of 10 lakh would need a central public hospital with around 300 beds, at annual admission rates of 1 indoor patient per 50 persons and an average length of stay of 5 days. At such rates, the district would need to provide annually for 20,000 patient admissions, requiring 1 lakh bed days spread over the course of the year. Between 85-95 percent of these bed days would have to be provided by the central DH. With desirable bed occupancy rate at 80 percent, the district would thus need between 270-302 beds. Thus in pro rata terms, Uttar Dinajpur with a 2001 population of 24.42 lakh needed to provide bed facilities for 0.49 lakh indoor patients annually or 2.44 lakh bed days overall. At 80 percent bed occupancy, this would have required a total of 1029 hospital beds, with the share to be provided at DH facilities ranging between 874-977 beds. Obviously, since this need could not have been met even at 100 percent bed occupancy by a Grade II hospital, the minimum bed capacity to serve the needs of the 2001 Uttar Dinajpur population at higher bed occupancy rates exceeding 80 percent required at least two DH facilities at Grade I (500 beds) and Grade II (300 beds) levels.

Raiganj DH, in contrast, is still a 168-bedded referral hospital with staffing and equipment facilities that fall well short of Indian Public Health Standards [IPHS] for a full-fledged District Hospital (see Appendix). The OPD Department of the hospital, which is relatively new and in comparatively better physical condition, comprises general medicine, surgery, gynaecology & obstetrics, paediatric, ophthalmology and dental wings which are open for consultation every day of the week, and psychiatry, dermatology & STI, ENT and orthopaedic wings which open on selected days of the week. Daily footfall at the OPD wings in 2006 averaged around 600 per day, compared the OPD footfall of around 430 per day at Islampur SDH and under 400 per day at Kaliaganj SGH. The IPD Department at Raiganj DH comprises 24-hour emergency services, surgery, maternity and paediatric, along with support facilities including pathology, radiology as well as the blood bank. The single major OT theatre looks after the common surgical needs of general surgery, obstetrics & gynaecology, ENT, ophthalmology and dental surgery. Since there is no minor OT for orthopaedic plaster setting, this has to be carried out in a passage in front

of the OT for the A kitchen attached to the IPD looks after patient diets. The separate leprosy surveillance unit is the oldest healthcare facility at the hospital, dating back to 1926, while the DTC centre oversees activities under the Revised National Tuberculosis Control Programme [RNTCP].

General ward facilities at the IPD section of Raiganj DH include a male ward with 47 beds and a female ward with 28 beds. Since the main section of the male ward has room for only 23 beds, 13 additional beds are accommodated in the verandah of the ward and another 9 in the annexe, besides which there is also provision for two paid beds. The female ward has a capacity of 26 general beds as well as two paid beds. The largest number of IPD beds in both male and female wards are attached to general medicine and surgery. In addition, there are beds assigned specifically to ENT and ophthalmology. The maternity ward at the hospital accommodates 42 beds. In 2006, Raiganj DH performed an average of around 13 deliveries a day and 7 major surgeries per day, which gives an idea of the pressure that currently falls on these existing facilities. During the seasonal peak in deliveries in the autumn months, the additional patients have to be accommodated on the ward floors. The paediatric ward of the hospital, which admits children under age 12, has only 11 beds. Hence sharing of beds and ward floors is a relatively common sight, especially during seasonal peaks when the ward often has to admit over 25 patients.

Although in nominal terms, Raiganj DH has the cumulative staff strength recommended under IPHS for 100-200 bedded district hospitals, there is an excess of Group D GDAs and menial positions and critical shortages at technical and paramedical levels. Although the number of nursing positions apparently exceeds the sanctioned nursing strength, it is well within IPHS norms and is justified further by the excessive OPD and IPD loads at the hospital, and by the BTR and BOR which are now around 131 percent and 126 percent at Raiganj DH, against the respective West Bengal Health Department norms of 72-96 percent for bed turnover and 75-100 percent for bed occupancy. The ubiquitous GDAs and staff nurses fill in for many infrastructural and personnel gaps and keep the hospital running in the face of almost insurmountable system pressure.

Rationalisation of system loads in Uttar Dinajpur also requires the planned upgradation of several SHCs into PHCs, besides the strengthening of PHCs and BPHCs for the delivery of clinical services and referral healthcare. A beginning has again been made through the proposed establishment of new PHCs at Kalanagihat under Panditpota-2 GP in Islampur block, and at Sahapurhat under Sahapur-1 GP in Goalpokhar-1 block. Similarly, with critical support from NABARD, the upgradation of Ramganj PHC in Islampur block and Rampur PHC in Raiganj block into BPHCs is already underway, which is expected to augment IPD bed availability in Uttar Dinajpur by 60 additional beds, while also reducing some of the existing system load on Islampur SDH and Raiganj DH. Upgradation of the existing PHCs at Daspara (Chopra), Goagaon (Goalpokhar-1), Kanki (Goalpokhar-2) and Rasakhawa (Karandighi) into BPHCs has also been proposed under the first phase of the West Bengal Health Systems Development Initiative [HSDI]. As all these are located in Islampur SD, the prioritisation of these PHCs for upgradation will improve the provision of referral healthcare in the subdivision substantially. The five existing BPHCs at Dalua, Lodhan, Chakulia, Hemtabad and Itahar are currently at various stages of conversion into RH level hospitals, drawing upon funding support from the Rural Infrastructure Development Fund [RIDF] and HSDI. Upgradation of Sujali PHC (Islampur block) and Bangalbari PHC (Hemtabad block) has been proposed for the second phase of HSDI. When all these upgradations are accomplished, referral healthcare in the district is expected to improve, stretching a safety net beneath the growing healthcare needs of the rural population.

With all these parallel initiatives being contemplated in quick succession, another challenge will obviously be faced in meeting the staffing needs of the expanded District health system in a coordinated and phased manner, so that no new healthcare facility remains understaffed and underutilised because of critical staff vacancies. Unlike urban areas, where there can be considerable duplication in functions and facilities because of the multiplicity of health institutions, each personnel level within the District health system plays a key role in the efficient delivery of public healthcare services, including the so-called dying cadres of SWOs and male SHC workers. Given the current healthcare deficits of Uttar Dinajpur, the task before the District Health authorities of uplifting public health standards is likely to be immense.

## BOX-CHART: Current Public Health Monitoring System in Uttar Dinajpur

DISTRICT LEVEL MONITORING	SUB-DIVISION LEVEL MONITORING	BLOCK LEVEL MONITORING	SUB-CENTRE LEVEL MONITORING
<p><b><u>PARTICIPANTS</u></b>                      Chief Medical Officer of Health[CMOH]                      Dy. Chief Medical Officer of Health[DCMOH]                      District Maternal &amp; Child Health Officer [DMCHO]                      District Tuberculosis Officer [DTO]                      District Public Health Nursing Officer[DPHNO]                      Accounts Officer Project Management Unit [AO/PMU]</p>	<p><b><u>PARTICIPANTS</u></b>                      Asst Chief Medical Officer of Health[ACMOH]</p>	<p><b><u>PARTICIPANTS</u></b>                      Block Medical Officer of Health[BMOH]                      2nd Medical Officer[MO]                      Block Public Health Nurse [BPHN]                      Public Health Nurses[PHN]                      Block Sanitary Inspector [BSI]                      Sanitary Inspectors[SI]</p>	<p><b><u>PARTICIPANTS</u></b>                      Auxiliary Nurse cum Midwife[ANM]                      Health Supervisors[HS]</p>
<p><b><u>MONTHLY SCHEDULES</u></b>                      - BPHC Visits, min. 2 per month                      -PHC Visits, min. 2 per month                      -SHC Visits, min. 4 per month                      -Report Analysis, during Visits/MIS Meeting                      -Identification of Weaknesses, during Visits/MIS Meeting                      -Monitoring of Corrective Measures, during Visits/MIS Meeting                      -Recording of Observations                      -Reports  <b><u>OTHER EXERCISES</u></b>                      -Progress Assessment                      -Meetings with District Health &amp; Family Welfare [H &amp; FW] Samiti                      -Periodic Stakeholder Meetings                      -Computerisation of Health Data                      -Data Feedback to Block &amp; Primary Health Units</p>	<p><b><u>MONTHLY SCHEDULES</u></b>                      -Rotational BPHC Visits                      -Quarterly Review Meeting                      -Recording of Observations                      -Reports</p>	<p><b><u>MONTHLY SCHEDULES</u></b>                      -SHC Visits, min. 2 per week                      -Monthly Report Analysis.                      -MIS Meeting                      -Meetings with Block Health &amp; Family Welfare [H &amp; FW] Samiti                      -Recording of Observations                      -Reports</p>	<p><b><u>MONTHLY SCHEDULES</u></b>                      -Home Visits                      -AWC Visits                      -Reports from Link Persons                      -Meeting with SHGs                      -Meeting with GP Health &amp; Family Welfare [H &amp; FW] Upa-Samiti                      -Data Analysis                      -Recording of Observations                      -Reports</p>



### Community Involvement & Monitoring Mechanisms

A critical role is being assigned under NRHM to women Accredited Social Health Activists or ASHA workers who are expected to create the vital link between the healthcare system and the rural community. Rather than being a new innovation, the ASHA concept follows from the earlier experiment with village health guides [VHG] under recommendations of the Shrivastav Committee in 1977 for creation of a team of auxiliary and community health workers to support the extension of the rural healthcare system. The earlier concept had also experimented with the idea of forming a volunteer workforce to expand the outreach of the system, without increasing its costs. Each ASHA volunteer would be appointed to the population norm of 1:1000, and is required to be a woman in the 25-45 age-group with at least an elementary education who is a primary resident of the village concerned. Along with the AWW (also a woman volunteer appointed on a 1:1000 population ratio), the ASHA worker would coordinate village community health needs with the two ANMs who would be appointed at each SHC under NRHM, and would assist the Village Health Committee [VHC] in formulating a Village Health Plan. Besides these functions, she would also be expected to serve as a community mobiliser and educator as well as a paramedical worker trained in dispensing basic drugs, and would be accountable to the local panchayat.

At the recommended NRHM 1:1000 norm, Uttar Dinajpur will require over 26 thousand ASHA workers on the basis of the 2004 projected population. Another norm requires that each ASHA worker be imparted 23 days of intensive training spread over five episodes during the first year of induction. The District Rural Health Mission will thus need to arrange over 6000 training sessions with equivalent establishment, trainer and logistic costs, assuming that the ASHA workers can be trained in regional batches of 50. While the effort and expenditure involved in getting the ASHA scheme off the ground is therefore likely to be immense, the results may be a little slow in coming. The ASHA scheme represents a process innovation, whose results also depend on simultaneous strengthening of the physical quality standards of the rural referral healthcare system. A recent PACS-VHAI review of the impact of NRHM in 24 districts spread over eight Indian states found substantial training gaps and knowledge gaps still prevalent among ASHA workers who were also unclear about their own roles. The lack of equivalent support structures for the ASHA scheme pins too much responsibility on the ASHA workers who are expected to function as principal change agents. There is therefore an apprehension that the ASHA scheme may cause further shrinkage of the outreach-roles of the AWWs and ANMs, unless there is sufficient compulsion on the latter to work as part of village health team.

An important innovation contemplated within NRHM involves community monitoring of healthcare quality and service delivery, through newly-formed Rogi Kalyan Samitis [RKS] at the PHCs and hospital institutions, and through the Village Health Committees [VHCs] and PRIs at local government levels. Although RKS samitis have recently been formed at all public healthcare institutions in Uttar Dinajpur ranging from the PHCs to Raiganj DH, their meetings are still irregular. As part of the NRHM effort to decentralise the management of primary healthcare, the VHCs are also expected to formulate village plans articulating the healthcare needs felt by the community, for eventual consolidation under the District Health Plan. No clear mechanisms have yet been designed for this important exercise, leading to administrative apathy as well as PRI disinterest. The PACS-VHAI review study therefore found this aspect to be a particularly weak link in the NRHM community management chain, since few PRI and VHC members had either the knowledge or the training to prioritise health issues. Until such problems are satisfactorily resolved, the District Health Plans will continue to retain the design of Departmental plans, echoing the supply side much more than the felt healthcare needs of the community. Besides the provision for community level monitoring of the District Health system, a system of multi level technical monitoring by the Departmental

authorities is already in place in Uttar Dinajpur. To work efficiently, without friction, both monitoring systems would need to coalesce, so that the demand and supply aspects of public healthcare are both represented in a purposeful and transparent manner.

### Private Healthcare Providers in Uttar Dinajpur

The private healthcare sector in Uttar Dinajpur in 2008 was represented by 12 nursing homes, 53 other diagnostic service providers and 12 ultrasonography clinics. With the former departmental ambulance services to the 9 BPHCs having been placed under public-private partnership [PPP] from February 2007 and 10 other privately-provided services being available on demand, ambulance services in the district are now entirely provided by private & NGO operators. Diagnostic services at the Karandighi RH are offered on the hospital premises by a private operator, while catering services for indoor patients admitted to Raiganj DH, Islampur SDH and to the 9 BPHCs have also been outsourced to private providers. At the district and subdivisional hospitals, scavenging services are also provided now by private parties.

However, with the current physical and personnel limitations in the public health infrastructure and the multiplicity of system loads, an overwhelmingly large segment among the rural population in Uttar Dinajpur has to seek clinical healthcare services from private health practitioners. Of the 191 qualified health professionals in private practice in 2007, 177 belonged to the AYUSH group. While no Siddha or Yoga practitioners were reported, homeopathy dominated this group with 121 practitioners, in addition to whom there were 37 practitioners of ayurveda and 19 practitioners of the Unani or hakeemi system. Only 14 private health practitioners, in contrast, were qualified in allopathic medicine. Within the public systems providing alternative medical care in Uttar Dinajpur, attendance at 11 Government homeopathic dispensaries was 84,978 in 2005-06, with an average monthly attendance of 644 per clinic. Another 18,495 patients availed facilities at the 5 Government-run ayurvedic dispensaries in the district during the same period, with monthly attendance averaging 308 per clinic.

**Table: Registered Private Clinical Establishments in Uttar Dinajpur, 2007**

Sub-region served	Location	Private Clinical Establishments	Available Beds	X-Ray Services	Collection Centres	Pathology Services	CT Scanning	Ultra-sonography	Polyclinic/ OPD
<b>Nursing Homes</b>		11	134	3	-	2	-	2	-
Chopra	-	-	-	-	-	-	-	-	-
Islampur	Islampur M	6	48	2	-	1	-	1	-
Goalpokhar-1	-	-	-	-	-	-	-	-	-
Goalpokhar-2	-	-	-	-	-	-	-	-	-
Karandighi	Dalkhola M	1	6	-	-	-	-	-	-
	Karandighi	-	-	-	-	-	-	-	-
Raiganj	Raiganj M	4	80	1	-	1	-	1	-
Hemtabad	-	-	-	-	-	-	-	-	-
Kaliaganj	-	-	-	-	-	-	-	-	-
Itahar	-	-	-	-	-	-	-	-	-
<b>Day Care Centres</b>	<b>Raiganj M</b>	1	5	-	-	-	-	-	-
<b>X-ray/Scan Centres</b>			20	-	19	-	6	2	61

Table: Registered Private Clinical Establishments in Uttar Dinajpur, 2007 (Contd.)

Subregion served	Location	Private Clinical Establishments	Available Beds	X-Ray Services	Collection Centres	Pathology Services	CT Scanning	Ultra-sonography	Polyclinic/ OPD
Chopra		-	-	-	-	-	-	-	-
Islampur	Islampur M	7	-	7	-	2	-	1	1
Goalpokhar-1		-	-	-	-	-	-	-	-
Goalpokhar-2	Kanki	1	-	1	-	-	-	-	-
Karandighi	Dalkola M	2	-	2	-	-	-	-	-
	Karandighi	1	-	1	-	-	-	-	-
Raiganj	Raiganj M	7	-	6	-	3	2	4	-
Hemtabad	Hemtabad	-	-	-	-	-	-	-	-
Kaliaganj	Kaliaganj M	1	-	1	-	-	-	1	-
Itahar	Itahar	1	-	1	-	1	-	-	-
<b>Pathology Laboratories</b>			<b>51</b>	<b>-</b>	<b>5</b>	<b>1</b>	<b>46</b>	<b>1</b>	<b>31</b>
Chopra	-	-	-	-	-	-	-	-	-
Islampur	Islampur M	18	-	1	-	18	-	1	1
Goalpokhar-1	-	-	-	-	-	-	-	-	-
Goalpokhar-2	Kanki	1	-	-	-	1	-	-	-
Karandighi	Dalkola M	3	-	-	-	3	-	-	-
	Karandighi	3	-	-	-	3	-	-	-
Raiganj	Raiganj	15	-	1	1	11	1	2	-
Hemtabad	Hemtabad	1	-	-	-	1	-	-	-
Kaliaganj	Kaliaganj M	6	-	2	-	6	-	-	-
Itahar	Itahar	3	-	1	-	3	-	-	-
<b>Total Private Establishments</b>		<b>82</b>	<b>134</b>	<b>27</b>	<b>1</b>	<b>54</b>	<b>3</b>	<b>11</b>	<b>2</b>
Chopra	-	-	-	-	-	-	-	-	-
Islampur	Islampur M	31	48	10	-	21	-	3	2
Goalpokhar-1	-	-	-	-	-	-	-	-	-
Goalpokhar-2	-	2	-	1	-	1	-	-	-
Karandighi	Dalkola M	6	6	2	-	3	-	-	-
	Karandighi	4	-	1	-	3	-	-	-
Raiganj	Raiganj M	27	85	8	1	15	3	7	-
Hemtabad	-	1	-	-	-	1	-	-	-
Kaliaganj	-	7	-	3	-	6	-	1	-
Itahar	-	4	-	2	-	4	-	-	-
<b>Uttar Dinajpur DT</b>		<b>52</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>46</b>	<b>1</b>	<b>3</b>	<b>1</b>

Source: State Bureau of Health Intelligence [SBHI], GoWB

Yet even with such numbers, the combined strength of public and private allopathic doctors and AYUSH practitioners would be far too low to meet the total healthcare demands of the district, if this critical rural health gap was not filled by 3013 other RMP physicians. Sometimes called 'barefoot doctors', these are persons who, on the basis of prior experience as pharmacists and compounders, etc. or certificate qualifications in alternate medicine, have qualified to practice as registered medical practitioners, but have no formal qualifications in modern medicine. The highly disproportionate ratio between RMPs and formally qualified physicians in the district is also a strong indicator of disparities in healthcare availability in the remote rural areas of Uttar Dinajpur, where few trained doctors are willing to serve.

### Utilisation of Public & Private Healthcare

A project-study on the implementation of IEC strategy in Uttar Dinajpur undertaken in 2001 for the Department of Health & Family Welfare, Government of West Bengal, made a detailed examination of the current patterns of utilisation of healthcare services at Raiganj District Hospital and the State General Hospital at Kaliaganj (Inspiration, 2001). While Kaliaganj SGH drew most of its patients from Kaliaganj block and neighbouring Hemtabad, the patients visiting Raiganj DH were from Raiganj block and adjacent Itahar and Hemtabad, as well as smaller numbers from Karandighi, Kaliaganj and the adjoining district of Dakshin Dinajpur. However, only a few patients were observed to come to the two hospitals through the referral system, OPD services at the hospitals were dominated mainly by paediatric cases.

The 2001 Inspiration study also included a sample survey of healthcare utilisation patterns among 861 rural residents drawn from 44 villages in 39 selected GPs, spread over the five blocks of Karandighi, Raiganj, Hemtabad, Kaliaganj and Itahar which form the principal catchment of Raiganj District Hospital and Kaliaganj State General Hospital. The institutions providing public healthcare to these blocks in Uttar Dinajpur comprised Raiganj DH, Kaliaganj SGH, Karandighi RH and 5 BPHCs, as well as the PHC and SHC networks attached to the Block PHCs. As visible from the accompanying charts, the core public healthcare services utilised by rural residents in Uttar Dinajpur are principally in the MCH group, comprising contraception, antenatal care, attended or institutionalised deliveries, MTP when required, and immunisation and child health services. These are generally accessed at all levels from the rural SHC to the Raiganj DH. While surgical contraception is mainly sought through rural referral units like the BPHCs, rural hospitals and Kaliaganj SGH, antenatal care is sought at SHC and PHC level, and to an extent through the SGH. The rural referral units and FRUs also play the main part in fulfilling more specialised obstetric needs, and in attending to surgical cases and other patients with serious disease. Basic delivery services are availed mainly at the PHCs and SHCs, and orthopaedic services at the BPHCs, Kaliaganj SGH and Raiganj DH. When brought to public institutions, emergency snakebite cases are largely treated at the BPHCs. Basic healthcare needs in the common ailment group comprising ordinary fevers, diarrhoeal & dysenteric problems and common skin infections are mainly met at the PHCs, RH and SGH, while a limited number of cases reach the DH and BPHCs. Thus while higher level public healthcare institutions attend to the bulk of the patients requiring major treatment, most basic healthcare needs other than MCH are met at more median levels by the institutions ranging from the SGH to the PHCs. The role of MCH services in squeezing out other basic health services is strongest in case of the SHCs.

Private healthcare providers in the district comprise a mix of private nursing homes providing indoor and outdoor services, RMP physicians and pharmacists, all of whom provide treatments based on the allopathic system, as well kabiraj physicians, homeopaths, and quack healers who provide other healing treatments. The quack healers provide a wide range of treatment extending from basic allopathic drugs to physiotherapeutic and surgical manipulations, all without any formal training in any recognisable branch of medicine. Utilisation of private healthcare services available from these providers by rural residents

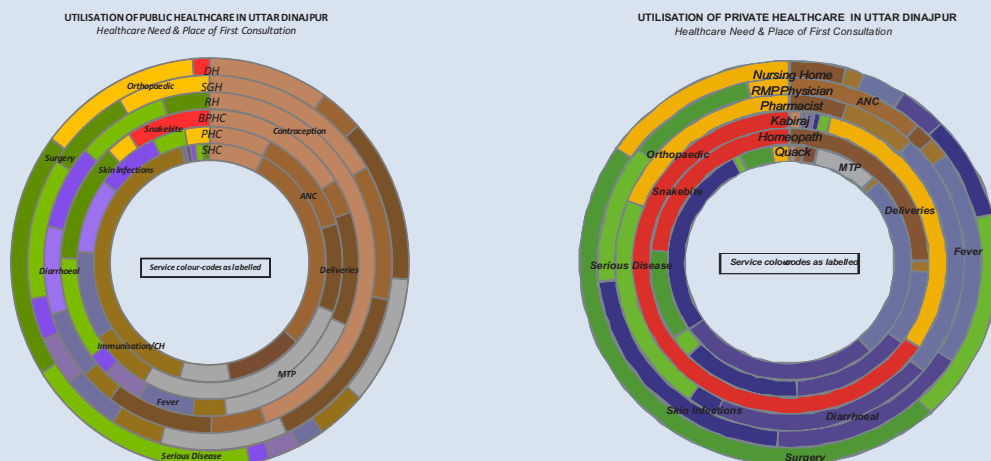
shows well-defined patterns that recognisably complement their utilisation of public services. Private nursing home services are largely utilised for treating major diseases or for cases where surgical or orthopaedic treatment is necessary. Smaller groups of rural patients utilise nursing homes for delivery services or for treating common ailments.

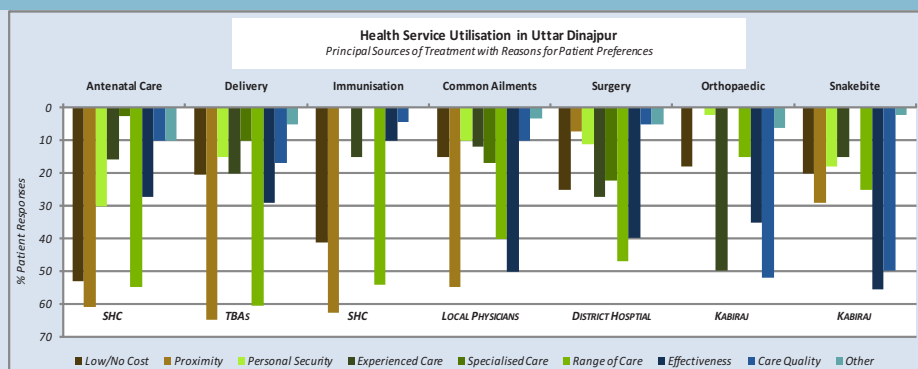
**Table: Patterns of Utilisation of Public & Private Healthcare Services by Rural Residents in Uttar Dinajpur**

Health Needs & Services	PUBLIC PROVIDERS						PRIVATE PROVIDERS					
	SHC	PHC	BPHC	RH	SGH	DH	Nursing Home	RMP Physician	Pharmacist	Kabiraj Physician	Homeopathic Physician	Quack Physician
Contraceptive Services	12.9	4.8	11.3	14.5	25.8	22.6	-	-	-	1.6	-	1.6
Antenatal Care	48.7	8.3	2.6	1.7	18.3	8.3	-	9.6	-	-	-	2.2
Delivery	17.9	6.8	8.5	3.4	23.2	30.0	1.1	1.4	0.3	-	3.4	4.0
MTP	11.8	17.6	11.8	-	17.7	23.5	-	-	-	-	-	17.7
Immunisation/ Child Health	70.7	4.9	2.6	1.1	7.1	9.3	0.4	1.5	0.4	-	0.2	1.6
Ordinary Fever	1.0	6.7	4.2	2.1	8.0	5.0	0.9	15.4	1.2	0.8	1.2	53.5
Diarrhoea/ Dysentery	1.1	5.7	3.1	2.7	6.7	5.9	1.0	14.1	1.1	1.0	1.9	55.8
Skin Infection	1.2	5.0	1.7	2.6	5.7	3.8	2.1	18.3	0.2	0.7	1.9	56.2
Serious Disease	1.8	2.6	7.7	2.9	19.1	44.5	4.4	9.9	1.1	1.5	0.4	2.2
Surgery	1.5	-	8.9	1.5	11.9	44.8	11.9	9.0	-	-	1.5	9.0
Orthopaedic Needs	-	2.0	2.0	-	12.9	30.7	4.0	3.0	1.0	38.6	-	5.0
Snakebite	-	-	6.5	-	-	3.2	-	-	-	83.9	3.2	-

[In User-percentages]

Source: Inspiration Sample Survey, 2001





However, the proportion of privately provided MCH services utilised at nursing homes is much lower, compared to the public healthcare system. Rural RMP physicians provide a wide range of basic healthcare services, besides serving as the point of first access where patients with more serious diseases and surgical cases are screened and detected. A small proportion of rural patients seek MCH advice and services from the RMPs. Serving as proxy physicians, pharmacists provide advice and treatment for a similarly wide range of health services, with the exception of surgical cases. Kabiraj physicians, on the other hand, offer more specific services and are mainly consulted in cases of snakebite and orthopaedic problems. Homeopaths provide a wide range of services and are the main private providers to be consulted during difficult deliveries. Untrained village quacks are routinely consulted in almost all health service categories, also providing unregulated surgical and MTP services, often with dangerous consequences. No contraceptive services are available, however, through the private healthcare system. An inner role is also played by other contributing factors such as proximity, cost-of-service, patient insecurity, specialisation and experience, prior cure rates, range of treatments offered, care quality and so on, in determining the point from where rural patients first access healthcare. A summary of these is provided in the associated bar chart.

The availability of low-cost or free services are a major reason why MCH services and surgical or orthopaedic treatment are primarily sought from public healthcare institutions. In the case of immunisation and ANC services, from SHCs and birth assistance from traditional birth attendants [TBAs], proximity appears as a major choice factor. Again, while seeking treatment for common ailments from local providers, including RMP physicians, pharmacists and village quacks, proximity is the main criterion, along with the perceived effectiveness of the treatment as recorded by the experiences of other rural patients. In addition to the wide range of health services offered and the effectiveness of treatment, low-cost services and experienced and specialised care are the main factors that draw patients to the District Hospital. Personal security of the patients plays a fairly important part in deciding the choices of female patients seeking ANC and delivery services, and also more generally in the case of common ailments, surgery and snakebite emergencies. When choosing local kabiraj physicians as principal providers of snakebite treatment and orthopaedic care, patients set a lot of store by the skilled experience and care quality of the physicians. In emergency situations like snakebite cases, proximity is also a major factor in choosing them as the principal source of treatment.

## Healthcare Vision for Uttar Dinajpur

The current health scenarios in Uttar Dinajpur therefore present a picture with several contrasts. On the one hand, the problems of healthcare delivery and access have reached critical dimensions, placing Uttar Dinajpur among the lowest ranked districts in West Bengal and India in terms of standard health indicators. On the other hand, the potential for the district to lift itself out of this gloomy situation, using the path-breaking NRHM initiative as its critical means of support is immense. Uttar Dinajpur, in many ways,

presents a testing ground for NRHM. Besides all the process and delivery innovations that NRHM intends, it ensures for the first time that there is an adequate flow of public investment into the health sector. This in itself creates the potential for Uttar Dinajpur to make good its longstanding shortfalls in the provisioning of public healthcare infrastructure and rural healthcare delivery. However, the success of NRHM will depend not only on the building of new SHCs, PHCs and hospitals and the addition of public health staff, but also on subsequent increase in the utilisation of the public health system, leading to basic improvements in the health parameters that have presently placed Uttar Dinajpur in its disadvantaged position. This is the ultimate mission of NRHM, where the decentralisation and communitisation of healthcare under district plans holds the largest promise. In West Bengal, with its strong PRI institutions, the rural structures are already in place which can make this part of the NRHM mission a success. In Uttar Dinajpur, this success can potentially transform the human development situation of the district.

Throughout the foregoing review, no evidence has emerged that the people of Uttar Dinajpur are averse to modern health-seeking behaviour. Low rates of institutional deliveries are the result of the inability of most rural hospitals and health centres to handle obstetric cases because of the lack of properly placed doctors and health staff, and because of the inability of the overcrowded referral hospitals to accept any more patients because of inadequate beds and facilities. High maternal mortality is because women in distress cannot reach properly equipped health facilities in time, over long distances. High infant mortality and low child survival is because women who live beyond the outreach of the public health system give birth in insecure home situations, without the benefit of trained attendance because the number of MOs and ANMs are too few for them to be reached. Morbidity and disease incidence are high, because many people in the district are beyond the reach of affordable, reliable healthcare. All this can change for the better, if modern healthcare is brought to their doorstep through a public healthcare system that matches the health aspirations of the people, word for word.

## Appendix: IPHS Staffing Norms for Sub-divisional and District Hospitals

Staff Categories	31-50 bedded SD Hospital	51-100 bedded SD Hospital	101-200 bedded District Hospital	300 bedded District Hospital
<b>Medical Officers</b>	<b>22</b>	<b>31</b>	<b>34</b>	<b>60</b>
Hospital Superintendent	1	1	1	1
General Medicine Specialist	1	2	3	3
Surgery Specialist	1	2	2	3
Obstetrician/Gynaecologist	1	2	4	6
Psychiatrist	-	-	1	1
Dermatologist/Venereologist	1	1	1	1
Paediatrician	1	2	2	3
Anaesthetist (Regular/Trained)	1	2	2	6
ENT Surgeon	1	1	1	2
Ophthalmologist	1	1	1	2
Orthopaedician	1	1	1	2
Radiologist	1	2	1	1
Microbiologist	-	-	1	[at IDSP]
Casualty/General Duty Doctors <sup>1</sup>	7	9	6	20
Dental Surgeon	1	1	1	1
Forensic Specialist	1	1	1	1
Public Health Manager <sup>2</sup>	-	1	1	1
AYUSH Physician <sup>3</sup>	2	2	2	4
Pathologist <sup>4</sup>	-	1	2	2
<b>Paramedical Staff</b>	<b>49</b>	<b>77</b>	<b>154 to 179</b>	<b>207</b>
Staff Nurse <sup>5</sup>	18	50	75 to 100	100
Hospital Worker <sup>6</sup>	5	1	20	30
Sanitary Worker	5	-	15	20
Ophthalmic Assistant/Refractionist	1	1	1	2
Social Worker/Counsellor	-	-	1	2
Cytotechnician	-	-	1	1
ECG Technician	1	1	1	1
ECHO Technician	-	-	1	1
Audiometrician	-	1	-	1
Lab Technician <sup>7</sup>	5	5	12	12



## Appendix: IPHS Staffing Norms for Sub-divisional and District Hospitals (Contd.)

Staff Categories	31-50 bedded SD Hospital	51-100 bedded SD Hospital	101-200 bedded District Hospital	300 bedded District Hospital
Lab Attendant/Hospital Worker	2	3	4	4
Dietician	-	-	1	1
PFT Technician	-	-	-	1
Maternity Assistant (ANM)	-	-	6	4
Radiographer	2	3	2	3
Dark Room Assistant	-	-	1	2
Pharmacist <sup>8</sup>	4	5	5	8
Matron	1	1	1	7
Assistant Matron	-	1	2	-
Physiotherapist	1	1	1	2
Statistical Assistant	1	1	1	1
Medical Records Officer/Technician	1	1	1	2
Electrician	1	1	1	1
Plumber	1	1	1	1
<b>Administrative Staff</b>	<b>14</b>	<b>15</b>	<b>17</b>	<b>28</b>
Manager (Administration)	-	-	-	1
Junior Administrative Officer	-	-	1	1
Office Superintendent	1	-	1	2
Assistant	-	-	2	5
Junior Assistant/Typist	-	1	2	3
Accountant	2	2	2	2
Record Clerk	-	-	1	3
Office Assistant	-	-	1	2
Computer Operator	6	6	1	2
Driver <sup>9</sup>	1	2	2	3
Peon	2	2	2	2
Security Staff <sup>10</sup>	2	2	2	2
<b>Operation Theatre Staff</b>	<b>5</b>	<b>14</b>	<b>19</b>	<b>26</b>
Staff Nurse	2	5	9	11
OT Assistant	2	6	6	10
Sweeper	1	3	7	5

## Appendix: IPHS Staffing Norms for Sub-divisional and District Hospitals (Contd.)

Staff Categories	31-50 bedded SD Hospital	51-100 bedded SD Hospital	101-200 bedded District Hospital	300 bedded District Hospital
<b>Blood Bank/Blood Storage Unit Staff</b>	<b>4</b>	<b>12</b>	<b>9</b>	<b>9</b>
Staff Nurse	1	1	4	4
MNA/FNA	1	1	2	2
Lab Technician	1	5	1	1
Sweeper	1	3	2	2

Source: NRHM: Indian Public Health Standards [IPHS] for Hospital Institutions

1 At least 4 Female Allopathic doctors

2 Specialist/Manager trained in Public Health

3 If no separate AYUSH hospital/dispensary exists at SD HQ/District HQ

4 With DCP /MD (Microbiology/Pathology/Biochemistry qualification

5 @1 Staff Nurse per 8 beds with 25% reserve (incl 5 Ward i/c)

6 For OPD/Ward, Operation Theatre and Blood Bank

7 With MLT qualification, for Laboratory, Blood Bank and Blood Storage Unit

8 1 at each hospital may from AYUSH

9 @1 Driver per vehicle, or outsourced

10 Variable as required, or outsourced

## Chapter 4

### ECONOMIC LIVELIHOODS IN UTTAR DINAJPUR

#### Regional Economic Conditions & Livelihood Patterns

With its distinctive physiographic and agroclimatic features, the Dinajpur region has been a bread-basket area of Bengal for many centuries, growing multiple varieties of fine and coarse rice in vast quantities, along with major economic crops like jute. The livelihood profile of Uttar Dinajpur district has evolved in association with these old agricultural patterns, and more than two-thirds of its active workforce still draws livelihoods directly from agriculture and related occupations. Apart from a Government-sector spinning mill established near Raiganj in 1975 long before West Dinajpur had been bifurcated into its two modern constituent districts, there had been no visible trend towards industrialisation in Uttar Dinajpur until fairly recently. Lately, there has been a proliferation of bought-leaf tea [BLT] factories following the expansion of small-grower tea plantations across Chopra, Islampur and parts of Goalpokhar-1, while rice and mustard oil processing clusters have gradually formed in the vicinity of the townships of Kaliaganj, Raiganj and Islampur. However, although fast urbanisation at the commercial and transportation hubs at Raiganj and Islampur has fuelled the growth of tertiary economic activity based on trade and services, the economy of Uttar Dinajpur still remains intensely agricultural.

With the composition of soils and the distribution of accessible water resources in Uttar Dinajpur being highly uneven, intensive cultivation occurs within well defined pockets along the Mahananda aquifer and is relatively rare outside this region. Where groundwater based irrigation has advanced and multiple crops of rice can be grown, there is little diversification to other non-traditional cropping patterns. Agricultural labour demands in these areas thus coincide with the activity patterns and seasonality associated with the rice economy. In drier conditions elsewhere, with less access to groundwater based irrigation, cropping patterns are more diversified and include *rabi* crops of pulses and oilseeds. Lower agricultural yields in such areas however limit the absorption of hired agricultural labour. Commercial cultivation of jute largely occurs within a relatively narrow chain of marshy lands in the central region of Uttar Dinajpur, where surface waterflows are impeded by natural obstructions. The impounding of water that results allows the retting demands of jute processing to be met. In the undulating topography of alternating *dangi* terraces and *nichan* lowlands in the *terai* areas at the northern end of the district, wet crops like rice can only be grown in patches. The upland areas here which had previously grown semi-permanent horticultural crops like pineapples have now switched over largely to tea grown in small-grower plantations, allowing steady absorption of labour through the greater part of the year.

Variations of this kind in regional cropping patterns within the district affect regional labour absorption patterns significantly, and while labour demand touches high seasonal peaks, it remains dormant for a considerable part of the year. Thus although nearly 70 percent of the Uttar Dinajpur workforce is engaged in the agricultural sector, around one-fifth are marginal workers who work at some point during the year for total durations of less than six months and may be regarded as underemployed. Even though half the workforce comprises main agricultural workers, the annual period of activity for them extends from six months to a year and does not necessarily involve full time engagement. The paucity of year-round work opportunities relative to the large size of the rural workforce also keeps agricultural wages low in Uttar Dinajpur district.

With around 2.54 lakh hectare of land under agricultural holdings (Agricultural Census 2001), Uttar Dinajpur accounted for a cultivable area of 2.22 lakh hectare, net sown area of 1.59 lakh hectare and a net irrigated area of 0.73 lakh hectare (3<sup>rd</sup> Minor Irrigation Census 2001). At such ratios, over four-fifths of the land area of the district was covered by agricultural holdings, half of which was actually sown and a third of which was actually under irrigation. Although agriculture provided the mainstay to the livelihoods of 6.48 lakh

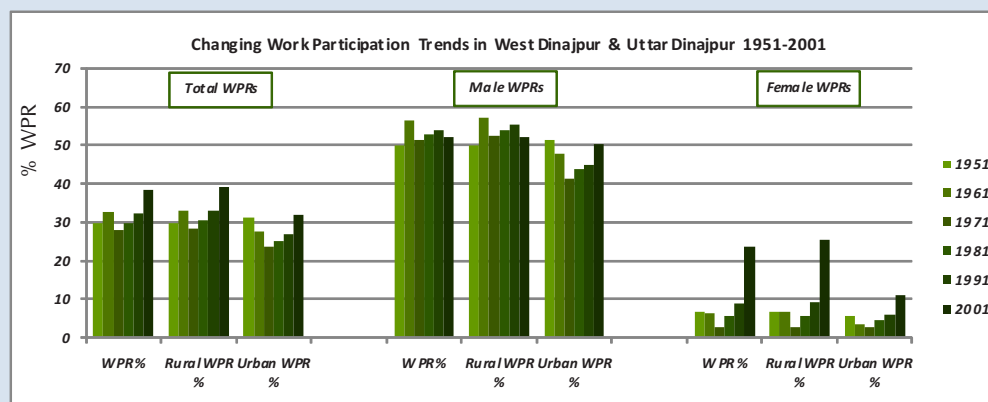
workers out of a total district workforce of 9.36 lakh persons, the availability of year-round work opportunities in the agricultural sector was severely constrained by low access to irrigation and the resulting inability of farmers in Uttar Dinajpur to bring large tracts of farmland under year-round cultivation. Livelihood security for the rural workforce in the district was threatened increasingly by the slow rates of proliferation of irrigation relative to fast growth of the rural population, progressively pushing new entrants into the rural workforce into marginal forms of work. Unlike major agricultural districts like Bardhaman in southern West Bengal where rapid urbanisation has relieved pressure on rural livelihoods, the rate of urbanisation in Uttar Dinajpur has been relatively slow outside the established urban centres at Raiganj and Islampur, and the total urban population amounted to just over 12 percent of the total district population in 2001. Out of the total sectoral workforce of 2.88 lakh main and marginal workers engaged in non-farm activities in Uttar Dinajpur, more than two-thirds resided outside statutory and non-statutory towns in rural areas, constituting around 24 percent of the rural workforce. Thus within the aggregate rural workforce of 8.42 lakh persons, more than three-fourths depended exclusively on agricultural activities for economic security.

The worker-to-population ratio or work participation rate [WPR] in 2001 was marginally higher in Uttar Dinajpur at 38 percent, compared to the West Bengal WPR of 37 percent. However the degree of livelihood dependence on agriculture was much greater in Uttar Dinajpur, where agricultural workers accounted for 69 percent of the district workforce compared to the corresponding ratio of 44 percent for West Bengal as a whole. Conversely, home based artisanship provided livelihoods to 3.7 percent of the workforce in Uttar Dinajpur against 7.4 percent in West Bengal, and the proportion of non-farm workers was also much higher in West Bengal at over 48 percent against 27 percent in Uttar Dinajpur. Such contrasts between Uttar Dinajpur district and West Bengal in the patterns of economic dependence on farm based and non-farm activities point to two distinctive features of the present livelihood situation in Uttar Dinajpur. Firstly, since a very large segment of the district population depends exclusively on agriculture as its principal source of livelihood, the state of rural prosperity and progress in rural Uttar Dinajpur is still determined primarily by the progress achieved within the agricultural sector. Secondly, the minimal presence of non-farm activities and livelihoods in Uttar Dinajpur currently limits the scope for alleviating pressure on agricultural land. Consequently, human development in the district depends very strongly on the livelihood security and wellbeing of the agricultural population.

**Table: Longterm Work Participation Trends in West Dinajpur & Uttar Dinajpur, 1951-2001**

Census	Total WPR %	Total Male WPR %	Total Female WPR %	Rural WPR %	Rural Male WPR %	Rural Female WPR %	Urban WPR %	Urban Male WPR %	Urban Female WPR %
1951	29.78	49.86	6.89	29.68	49.77	6.95	31.41	51.19	5.77
1961	32.72	56.51	6.48	33.12	57.25	6.70	27.82	47.69	3.62
1971	27.98	51.21	2.77	28.43	52.25	2.75	23.59	41.43	2.90
1981	29.86	52.60	5.58	30.44	53.74	5.69	25.21	43.71	4.67
1991*	32.34	53.84	8.99	33.19	55.25	9.43	26.84	44.92	6.03
2001*	38.30	51.90	23.80	39.20	52.10	25.50	31.80	50.20	11.10

\*For Uttar Dinajpur; WPRs for other Census years pertain to West Dinajpur  
Source: Table 22, Final Population Totals, West Bengal, Census, 2001



A preliminary assessment of changing work participation trends in the Uttar & Dakshin Dinajpur region between 1951-2001 can be obtained from the compilation table for West Bengal districts released with the Census 2001 results. Although the alternately rising and falling WPRs between 1951-71 are partially influenced by changes in the census definitions of workers, the census classifications of main and marginal workers have stabilised thereafter. In terms of overall trends, work participation in the region shows substantial longterm increase especially in rural areas, with a sizeable jump in rural WPRs between 1991 and 2001, because of strongly increased work participation by rural women. Thus although the WPRs for men are much higher than those for women in both rural and urban areas, women's work participation in the region has risen at a faster rate than that of men. In rural areas, women workers have virtually stepped into the shoes of men, as a result of which male WPRs in rural Uttar Dinajpur have declined after peak levels were recorded in 1991. Urban WPRs have however risen steadily among both men and women, with strong increases in urban work participation after 1991.

However, despite strong escalation in WPRs in rural areas where three-fourths of the workers depend on agricultural activity for livelihood, the economic importance of the agricultural sector in Uttar Dinajpur has declined considerably in terms of the total value produced. This is borne out by changes in the current value of contribution made by different economic sectors to the total net district domestic product [NDDP] in Uttar Dinajpur, recent estimates of which are available from the Bureau of Applied Economics & Statistics, GoWB.

**Table: Net District Domestic Product in Uttar Dinajpur by Sectoral Origin, 1993-94 to 2003-04 At Current Prices**

Uttar Dinajpur	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
<b>Total Primary Sector</b>	<b>51812</b>	<b>66646</b>	<b>73184</b>	<b>87032</b>	<b>99680</b>	<b>130347</b>	<b>123199</b>	<b>123837</b>	<b>124647</b>	<b>135611</b>	<b>155699</b>
Agriculture	47568	61731	66979	81552	91465	121582	112045	110610	110905	126878	145945
Forestry	908	987	1220	1508	1952	2174	3239	3620	3370	3585	3630
Fishery	3335	3927	4984	3971	6263	6591	7915	9607	10372	5148	6118
Mining & Quarrying	1	1	1	1	0	0	0	0	0	0	6
<b>Total Secondary Sector</b>	<b>8737</b>	<b>9558</b>	<b>11917</b>	<b>13687</b>	<b>16053</b>	<b>18427</b>	<b>22293</b>	<b>25911</b>	<b>28484</b>	<b>29760</b>	<b>35509</b>
Registered Manufacturing	284	304	389	459	293	327	768	258	262	297	333
Unregistered Manufacturing	4212	4653	5947	7276	8014	8798	11050	11841	13272	12513	14267
Construction	3765	4019	4921	5276	7096	8642	9292	12343	13577	15347	18739
Electricity, Gas & Water Supply	476	582	660	676	650	660	1183	1469	1373	1603	2170

**Table: Net District Domestic Product in Uttar Dinajpur by Sectoral Origin  
1993-94 to 2003-04 At Current Prices (Contd.)**

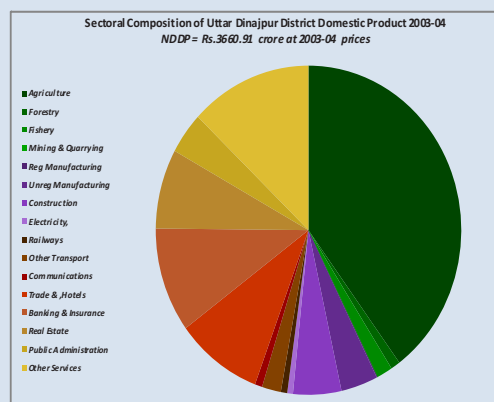
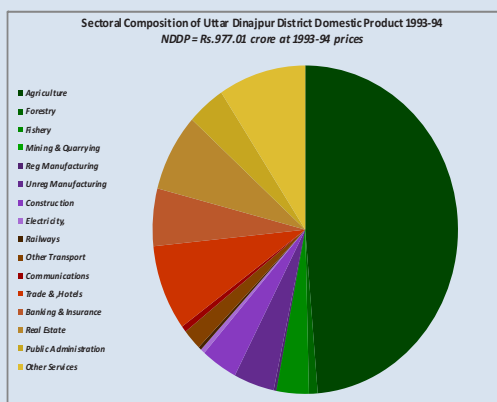
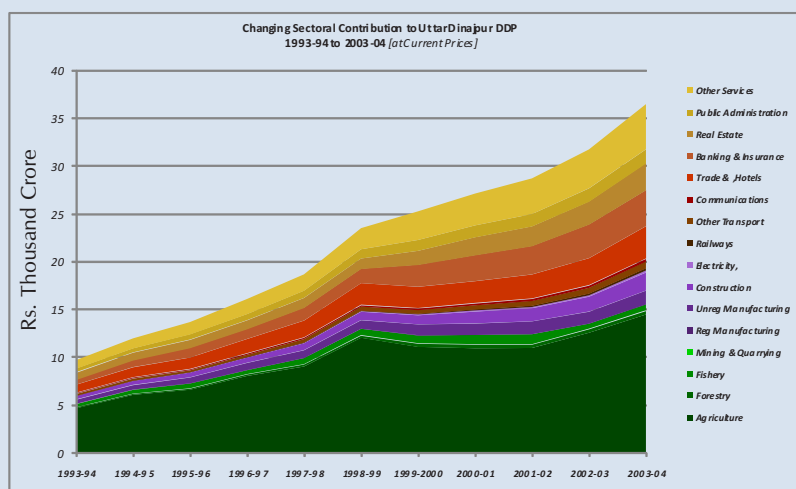
Uttar Dinajpur	1993 1994	1994 1995	1995 1996	1996 1997	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002	2002 2003	2003 2004
<b>Total Tertiary Sector</b>	<b>37152</b>	<b>44319</b>	<b>52456</b>	<b>61016</b>	<b>71881</b>	<b>87330</b>	<b>108232</b>	<b>122603</b>	<b>135110</b>	<b>153201</b>	<b>174883</b>
Railways	321	442	478	550	651	758	951	1133	1582	1967	2454
Transport by Other Means & Storage	1990	2333	1909	2387	3684	4463	3917	4527	5244	6204	7431
Communications	596	702	904	1164	1197	1415	1614	1897	2121	2427	2810
Trade, Hotels & Restaurants	8243	10256	11698	14704	17530	22432	22139	22628	24974	28056	33536
Banking & Insurance	5526	7666	10372	10736	13638	15123	23140	27276	29759	35265	37717
Real Estate, Ownership of Dwellings & Business Services	7478	8109	8680	9200	10360	11163	14930	19131	20852	24354	28677
Public Administration	3936	4218	5392	6386	7605	9762	11478	12651	13231	14134	15006
Other Services	9062	10593	13023	15889	17216	22214	30063	33360	37347	40794	47252
<b>Net District Domestic Product [in Rs.lakh]</b>	<b>97701</b>	<b>120523</b>	<b>137557</b>	<b>161735</b>	<b>187614</b>	<b>236104</b>	<b>253724</b>	<b>272351</b>	<b>288241</b>	<b>318572</b>	<b>366091</b>
NDDP per Capita [in Rs]	4646.7	5567.7	6172.3	7048.9	7942.2	9708.1	10769.1	11264.3	11632.0	12535.5	14046.3
	% of NDDP 1993 1994	% of NDDP 1994 1995	% of NDDP 1995 1996	% of NDDP 1996 1997	% of NDDP 1997 1998	% of NDDP 1998 1999	% of NDDP 1999 2000	% of NDDP 2000 2001	% of NDDP 2001 2002	% of NDDP 2002 2003	% of NDDP 2003 2004
Uttar Dinajpur											
<b>Total Primary Sector</b>	<b>53.03</b>	<b>55.30</b>	<b>53.20</b>	<b>53.81</b>	<b>53.13</b>	<b>55.21</b>	<b>48.56</b>	<b>45.47</b>	<b>43.24</b>	<b>42.57</b>	<b>42.53</b>
Agriculture	48.69	51.22	48.69	50.42	48.75	51.50	44.16	40.61	38.48	39.83	39.87
Forestry	0.93	0.82	0.89	0.93	1.04	0.92	1.28	1.33	1.17	1.13	0.99
Fishery	3.41	3.26	3.62	2.46	3.34	2.79	3.12	3.53	3.60	1.62	1.67
Mining & Quarrying	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Secondary Sector</b>	<b>8.94</b>	<b>7.93</b>	<b>8.66</b>	<b>8.46</b>	<b>8.56</b>	<b>7.80</b>	<b>8.79</b>	<b>9.51</b>	<b>9.88</b>	<b>9.34</b>	<b>9.70</b>
Registered Manufacturing	0.29	0.25	0.28	0.28	0.16	0.14	0.30	0.09	0.09	0.09	0.09
Unregistered Manufacturing	4.31	3.86	4.32	4.50	4.27	3.73	4.36	4.35	4.60	3.93	3.90
Construction	3.85	3.33	3.58	3.26	3.78	3.66	3.66	4.53	4.71	4.82	5.12
Electricity, Gas & Water Supply	0.49	0.48	0.48	0.42	0.35	0.28	0.47	0.54	0.48	0.50	0.59
<b>Total Tertiary Sector</b>	<b>38.03</b>	<b>36.77</b>	<b>38.13</b>	<b>37.73</b>	<b>38.31</b>	<b>36.99</b>	<b>42.66</b>	<b>45.02</b>	<b>46.87</b>	<b>48.09</b>	<b>47.77</b>
Railways	0.33	0.37	0.35	0.34	0.35	0.32	0.37	0.42	0.55	0.62	0.67
Transport by Other Means & Storage	2.04	1.94	1.39	1.48	1.96	1.89	1.54	1.66	1.82	1.95	2.03
Communications	0.61	0.58	0.66	0.72	0.64	0.60	0.64	0.70	0.74	0.76	0.77
Trade, Hotels & Restaurants	8.44	8.51	8.50	9.09	9.34	9.50	8.73	8.31	8.66	8.81	9.16
Banking & Insurance	5.66	6.36	7.54	6.64	7.27	6.41	9.12	10.02	10.32	11.07	10.30

**Table: Net District Domestic Product in Uttar Dinajpur by Sectoral Origin 1993-94 to 2003-04 At Current Prices (Contd.)**

Uttar Dinajpur	1993 1994	1994 1995	1995 1996	1996 1997	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002	2002 2003	2003 2004
Real Estate, Ownership of Dwellings & Business Services	7.65	6.73	6.31	5.69	5.52	4.73	5.88	7.02	7.23	7.64	7.83
Public Administration	4.03	3.50	3.92	3.95	4.05	4.13	4.52	4.65	4.59	4.44	4.10
Other Services	9.28	8.79	9.47	9.82	9.18	9.41	11.85	12.25	12.96	12.81	12.91

Source: Economic Survey, BAE&S, CoWB, various years

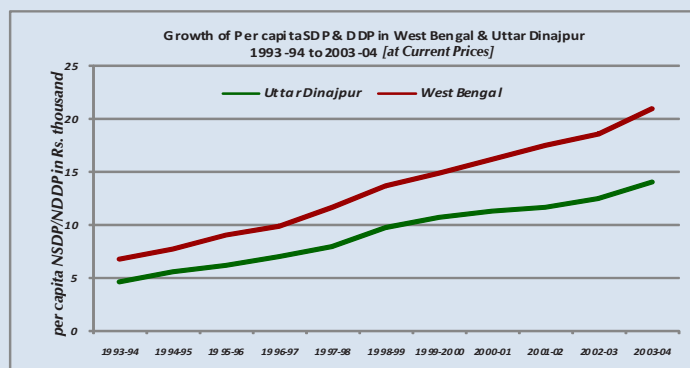
Without adjustment of values for changes in price levels, NDDP in Uttar Dinajpur has nearly quadrupled from Rs.977 crore to Rs.3661 crore over the 10-year period between 1993-94 to 2003-04, while the value of total agricultural output has risen three-fold from Rs.476 crore to Rs.1460 crore over the same period. Hence the bulk of the recent increase in the total value product of the Uttar Dinajpur district economy has occurred outside the agricultural sector. Although these estimates are presented in current value terms and would decline in absolute magnitude if adjustments for inflation were made in terms of the price levels prevailing in a given year, the broad sectoral trends displayed by the data in relative terms would remain intact even afterwards. A quick overview of these sectoral growth trends is provided in the associated charts.



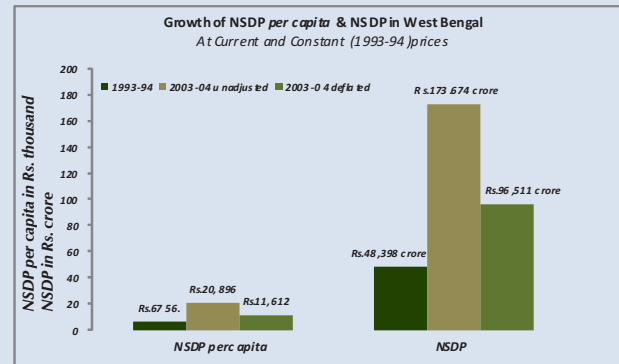
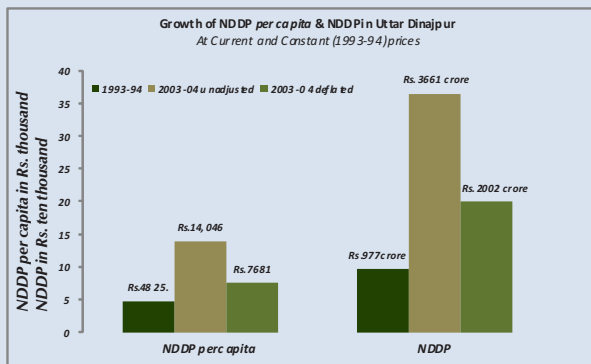
As is evident from the associated pie charts, there has been substantial shrinkage in the sectoral contribution made by the primary sector to the district domestic product [DDP] in Uttar Dinajpur, falling from a proportionate share of 53 percent in 1993-94 to 43 percent in 2003-04. This has been accompanied by marked rise in the sectoral contribution of the tertiary sector from 38 percent to 48 percent of the Uttar Dinajpur DDP over the same period, while the rise in the proportionate contribution from the secondary sector has been marginal. Although in terms of current prices, the value of agricultural output has trebled over the ten-year period, the proportional contribution of agriculture has also shrunk from 49 percent to 40 percent between the extreme years, but the decline has not been steady during the intervening period, with alternating good years and bad years. In the second half of the decade, agricultural growth rates have definitely slackened in Uttar Dinajpur until a late revival in 2003-04.

Within the secondary sector, organised manufacturing activity has been affected adversely by industrial slowdown during the preceding decade, yielding ground to unorganised manufacturing and construction activities which have acquired dominance over the sector during the ten-year reference period. Among tertiary activities, major increases have occurred in the proportional shares of banking and financial services and other non-financial services, which increased their joint share of DDP from around 18 percent in 1993-94 to nearly 24 percent by the end of the decade. Since in physical terms, total agricultural output in Uttar Dinajpur has risen substantially over the reference period, the increase in the sectoral share of tertiary activities at the expense of the agricultural sector indicates a steady worsening of the terms of trade in Uttar Dinajpur in favour of urban-centred livelihood activities and against agriculture. Clearly, the livelihood impact of this swing in a district where more than two-thirds of the working population depends on agricultural activities for a living has been highly adverse, threatening the livelihood security and economic wellbeing of the large rural population in Uttar Dinajpur.

Surrogate estimates of per capita incomes in Uttar Dinajpur district and West Bengal as a whole are provided by estimates of net district domestic product [NDDP] and net state domestic product [NSDP] in per capita terms. Affected more severely by the higher degree of livelihood dependence on agriculture, and therefore by the vagaries of climate, topography and local weather, the per capita NDDP in Uttar Dinajpur has grown much more slowly than per capita NSDP in the state of West Bengal as a whole over the reference period. During the ten-year period between 1993-94 and 2003-04, per capita annual incomes in West Bengal as a whole have risen from Rs.6,756 to Rs.20,896 in nominal terms (i.e. at current unadjusted prices) and to Rs.11,612 in real terms when measured at constant 1993-94 prices. Over the same period, annual per capita incomes in Uttar Dinajpur have risen from Rs.4,825 to Rs.14,046 in nominal terms and Rs.7,681 in real terms, indicating that the disparity between state and district per capita incomes has widened considerably over the period. At both starting and terminal years, Uttar Dinajpur ranked lowest among all West Bengal districts in terms of per capita incomes. Even Purulia, ranked second-lowest in West Bengal over the period, saw an increase in nominal per capita income from Rs.5,263 to Rs.16,182 (299%) over the period and an increase in real income to Rs.9,078 (172%) between 1993-94 and 2003-04. The corresponding scale of increase in nominal income was 291 percent in Uttar Dinajpur and 309 percent in West Bengal as







a whole. When valued at constant 1993-94 prices, the corresponding increase in real income in Uttar Dinajpur was by 159 percent, against the increase in real per capita income in West Bengal by 172 percent over the same period.

The scale factors for the growth of per capita incomes in real and nominal terms provide alarming evidence of widening income disparity between West Bengal and Uttar Dinajpur. While even Purulia has been able to replicate the growth trends of per capita income in West Bengal and prevent the widening of income disparity, Uttar Dinajpur has sunk into deepened rural poverty because of high livelihood dependence on agriculture and because of the worsening terms of trade between agriculture and other economic sectors. Increasing divergence between the growth paths of per capita NSDP in West Bengal and per capita NDDP in Uttar Dinajpur therefore strongly reflects growing development disparity and deepening rural poverty in relative terms between Uttar Dinajpur and the other districts that command forward positions in West Bengal.

### Rural Livelihoods and Population Growth

The district population of Uttar Dinajpur in 2001 stood at 24.42 lakh with decadal increase of approximately 5.45 lakh (28.7%) over the 1991 population of 18.98 lakh. Rural settlement density in the district rose over the decade from 606 to 783 persons per sq.km. Both Uttar and Dakshin Dinajpur have experienced high population growth for several consecutive decades, both as a result of high in-migration and resettlement as well natural growth of the population. Between 1991-2001, compound annual growth of the Uttar Dinajpur population growth averaged 2.56 percent p.a., and was even higher at 2.71 percent p.a. in the rural areas of the district. Coupled with the limited scope for rural employment outside the agricultural sector, the rapid increase in rural population and rural settlement density has put considerable pressure on available livelihood opportunities in the rural areas of the district.

Against this demographic backdrop, the uneven distribution of agricultural potential across the Uttar Dinajpur blocks has also generated considerable internal migration within the district, as agricultural workers and other rural migrants have crowded into the blocks with higher agricultural potential, higher labour demand and higher absorption of agricultural labour. Rural population density has consequently risen to over 700 persons per sq.km in Islampur, Goalpokhar-2, Karandighi and Raiganj, with Goalpokhar-1 and Itahar not far behind. Karandighi recorded the highest rural settlement density of 785 persons per sq.km in 2001 and the highest density increment of 220 persons per sq.km between 1991-2001, while the density increments

in Goalpokhar-2, Islampur and Raiganj blocks have all exceeded 170 persons per sq.km. However, internal resettlement on this scale has not been matched by equivalent growth in year-round livelihood opportunities, increasing the pressure on landless sections of the rural workforce to emigrate seasonally or casually outside district when adequate work becomes unavailable.

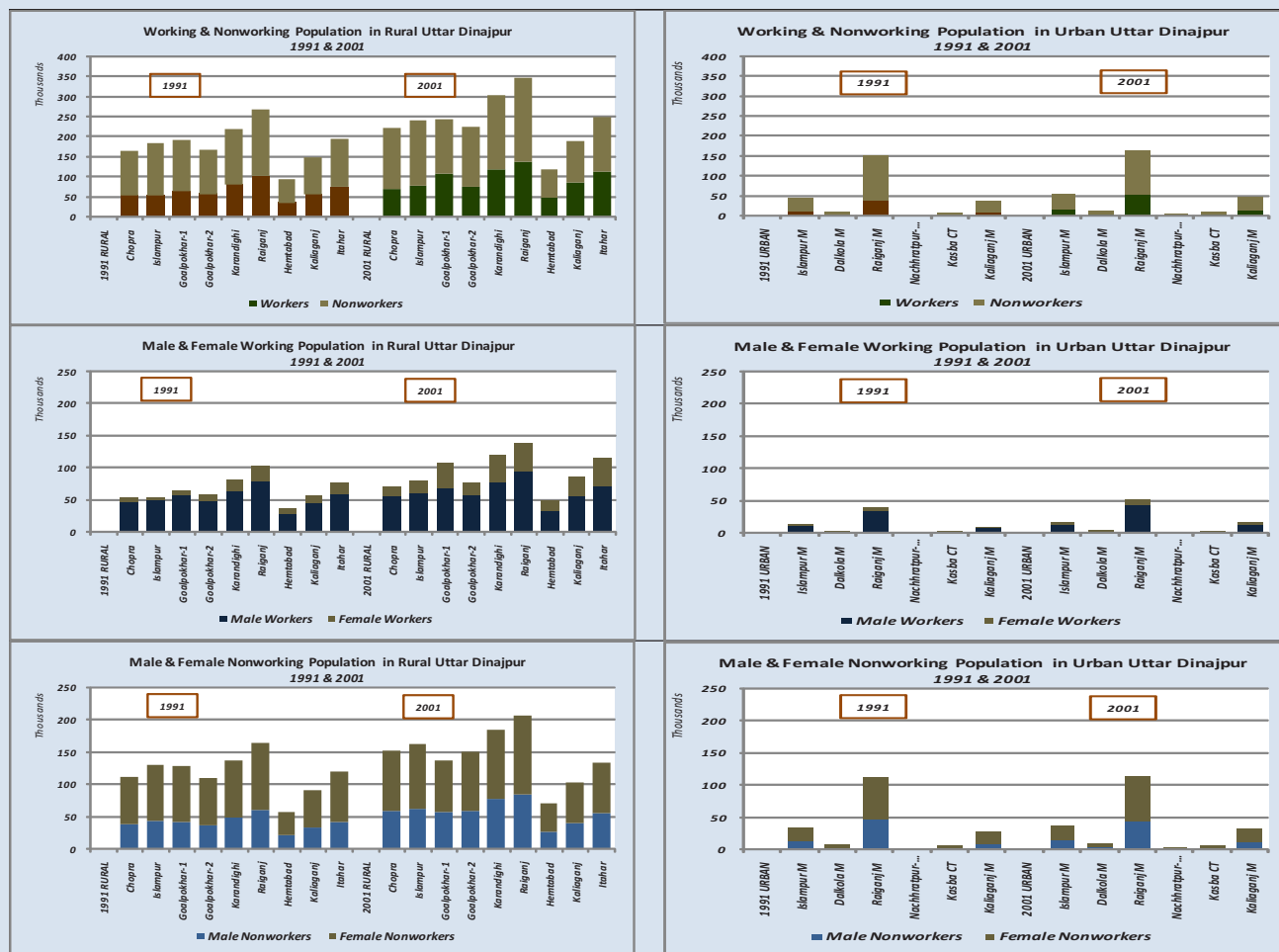
**Table: Changes in Working & Non-Working Population in Uttar Dinajpur, 1991-2001**

CD Block	1991 Total Population	1991 Total Workers	1991 Work Participation Rate [WPR]	1991 Total Male Workers	1991 Total Female Workers	1991 Total Non- Workers	1991 Male Non- Workers	1991 Female Non- Workers
Chopra	165720	53079	32.0	47182	5897	112641	38952	73689
Islampur	185086	54674	29.5	51002	3672	130412	44764	85648
Goalpokhar-1	194058	64612	33.3	57877	6735	129446	42996	86450
Goalpokhar-2	168409	58086	34.5	49242	8844	110323	37925	72398
Karandighi	219469	81801	37.3	64634	17167	137668	48781	88887
Raiganj	268937	103758	38.6	79288	24470	165179	60875	104304
Hemtabad	95157	36660	38.5	28016	8644	58497	21319	37178
Kaliaganj	150118	57516	38.3	44715	12801	92602	33241	59361
Itahar	197116	76223	38.7	58291	17932	120893	43339	77554
<i>Uttar Dinajpur Rural</i>	<i>1644070</i>	<i>586409</i>	<i>35.7</i>	<i>480247</i>	<i>106162</i>	<i>1057661</i>	<i>372192</i>	<i>685469</i>
Islampur M	45240	12454	27.5	11632	822	32786	12748	20038
Dalkhola M	10652	2854	26.8	2732	122	7798	2944	4854
Raiganj M	151045	39840	26.4	34876	4964	111205	46441	64764
Nachhratpur- Katabari CT	-	-	-	-	-	-	-	-
Kasba CT	8221	2458	29.9	2267	191	5763	2156	3607
Kaliaganj M	37817	10285	27.2	9288	997	27532	10248	17284
<i>Uttar Dinajpur Urban</i>	<i>252975</i>	<i>67891</i>	<i>26.8</i>	<i>60795</i>	<i>7096</i>	<i>185084</i>	<i>74537</i>	<i>110547</i>
<b>Uttar Dinajpur DT</b>	<b>1897045</b>	<b>654300</b>	<b>34.5</b>	<b>541042</b>	<b>113258</b>	<b>1242745</b>	<b>446729</b>	<b>796016</b>
CD Block	2001 Total Population	2001 Total Workers	2001 Work Participation Rate [WPR]	2001 Total Male Workers	2001 Total Female Workers	2001 Total Non- Workers	2001 Male Non- Workers	2001 Female Non- Workers
Chopra	223022	70093	31.4	55228	14865	152929	59869	93060
Islampur	241951	79208	32.7	60751	18457	162743	63512	99231
Goalpokhar-1	245430	108170	44.1	68623	39547	137260	57842	79418
Goalpokhar-2	226472	75368	33.3	57697	17671	151104	59061	92043
Karandighi	304986	120332	39.5	77583	42749	184654	78847	105807
Raiganj	347108	139013	40.0	94728	44285	208095	84191	123904
Hemtabad	118822	48014	40.4	33581	14433	70808	27611	43197
Kaliaganj	190019	86162	45.3	56368	29794	103857	41437	62420

**Table: Changes in Working & Non-Working Population in Uttar Dinajpur, 1991-2001 (Contd.)**

CD Block	2001 Total Population	2001 Total Workers	2001 Work Participation Rate [WPR]	2001 Total Male Workers	2001 Total Female Workers	2001 Total Non-Workers	2001 Male Non-Workers	2001 Female Non-Workers
Itahar	249541	115623	46.3	71010	44613	133918	56285	77633
<i>Uttar Dinajpur Rural</i>	<i>2147351</i>	<i>841983</i>	<i>39.2</i>	<i>575569</i>	<i>266414</i>	<i>1305368</i>	<i>528655</i>	<i>776713</i>
Islampur M	52738	15858	30.1	13631	2227	36880	14514	22366
Dalkhola M	13895	3714	26.7	3435	279	10181	3946	6235
Raiganj M	165212	52508	31.8	43295	9213	112704	44163	68541
Nachhratpur-Katabari CT	5113	1889	36.9	1439	450	3224	1245	1979
Kasba CT	9835	3303	33.6	2852	451	6532	2393	4139
Kaliaganj M	47650	16269	34.1	13456	2813	31381	11144	20237
<i>Uttar Dinajpur Urban</i>	<i>294443</i>	<i>93541</i>	<i>31.8</i>	<i>78108</i>	<i>15433</i>	<i>200902</i>	<i>77405</i>	<i>123497</i>
<b>Uttar Dinajpur DT</b>	<b>2441794</b>	<b>935524</b>	<b>38.3</b>	<b>653677</b>	<b>281847</b>	<b>1506270</b>	<b>606060</b>	<b>900210</b>

Source: Census, 1991 & 2001



Between 1991-2001, the working population in Uttar Dinajpur district rose substantially by 2.81 lakh from a total workforce size of 6.54 lakh workers in 1991 to 9.36 lakh in 2001. Nine-tenths of the increase occurred in the rural areas of the district, where the workforce grew by 2.56 lakh while the workforce in urban areas grew from 0.68 lakh to 0.94 lakh. The largest increase in the working population occurred in Goalpokhar-1 where the rural workforce grew by 0.44 lakh, followed by Raiganj, Karandighi and Itahar with working population increases ranging from 0.38-0.39 lakh. Hemtabad at the other end of the scale saw its working population increase by just over 0.11 lakh, while Chopra and Goalpokhar-2 experienced increases of just over 0.17 lakh, and Islampur and Kaliaganj experienced increases ranging from 0.25-0.29 lakh. Low-to-moderate increases in the working population in Chopra, Goalpokhar-2 and Islampur were accompanied by large increases in the dependent non-working population in the range 0.32-0.41 lakh, implying a strong increase in their dependency ratios. In Hemtabad and Kaliaganj on the other hand, the increase in dependency was modest. In Raiganj and Karandighi, the rise in dependency outweighed the strong increase in the working population, while Itahar and Goalpokhar-1 both experienced low increase in dependency, accompanying high increases in their working population.

As seen earlier, female work participation in Uttar Dinajpur had traditionally been low compared to male work participation. However, in all blocks in Uttar Dinajpur between 1991-2001, female working populations rose faster than male working populations, as more and more women entered the workforce. The increases in the female working population thus ranged from 0.06 lakh in Hemtabad to 0.33 lakh in Goalpokhar-1, while the corresponding increases in male working population were within a much narrower range from 0.06 lakh in Hemtabad to 0.15 lakh in Raiganj. Because of this, dependency within the male population rose faster than in the female population, while in Goalpokhar-1 which experienced the highest increase in working population between 1991-2001, the extent of female dependency actually declined. In urban Uttar Dinajpur on the other hand, where traditional gender patterns were better preserved, the male workforce rose by 0.17 lakh against a corresponding increase of 0.08 lakh in the female workforce.

Rather than being uniform across the district, the current patterns of work-search and dependency in Uttar Dinajpur clearly define three distinct sub-regions each of which is confronted by livelihood pressures of a distinctive kind. Forming a sub-regional cluster at the centre of the district, the densely populated blocks of Raiganj and Karandighi have experienced sharp increases in working population along with relatively sharp increases in male and female dependency. To the north of the district too, these characteristics also apply to Islampur blocks. On the other hand, with lower overall settlement densities, blocks like Itahar, Kaliaganj and Goalpokhar-1 have been able to draw in a large group of rural women into their active workforce and have thus accommodated large increases in their working populations without substantial increase in dependency. Elsewhere in the district, in blocks where the capacity to absorb new workers has been low either because of the saturation of work opportunities or because of the lack of livelihood diversification, the increase in dependency too has remained low, because of slow growth of the block populations. Clearly therefore, the work-patterns in the first two subregions are strongly affected by work-related migration, while the work patterns of the third non-contiguous subregion are affected by its absence.

### Work Participation in Uttar Dinajpur

Since 1981, the standard Census definition of work covers engagement in economically productive activities of a physical or mental nature, including the supervision and direction of work. The distinction between main and marginal workers is based on a time criterion that specifies the duration of such engagement. While workers who work for the major part of the year, i.e. for periods exceeding six months or 183 days, come under the description of main workers, others who work at some point during the year for shorter durations come under the description of marginal workers. It would stand to reason that any household would require economic support from at least one main worker who works for a significant part of the year, in order to survive. Other household members, including women who are otherwise engaged in unpaid domestic work, may also supplement household earnings by working at some point during the year

as marginal workers. Alternately, in salaried employment of a year-round nature, where the earnings of the main breadwinner are large enough to support the entire family, the incentive for other household members to participate in economic work is lowered. Consequently in urban areas, work participation is lower among both men and women than in rural areas.

While the overall rate of work participation in Uttar Dinajpur has risen from 34.5 to 38.3 percent between 1991-2001, male WPRs have actually declined from 54.8 to 51.9 percent. Overall work participation in the district has thus risen primarily on the strength of the sharp increase in female WPRs from 12.5 to 23.8 percent over the period. Because of even sharper decline in main WPRs among males from 54.3 to 46.5 percent between 1991-2001, overall main work participation in Uttar Dinajpur has fallen from 32.6 percent to under 30 percent. On the other hand, marginal work participation has risen significantly from 1.9 to 9.0 percent because of the strong rise in marginal WPRs among women from 3.5 to 12.8 percent accompanying an increase in marginal work participation among males from 0.5 to 5.4 percent. Such transitional changes within the main and marginal workforce in Uttar Dinajpur clearly indicate a growing mismatch between the availability of livelihood opportunities relative to the size of the working population, leading to growing marginalisation within the district workforce. While the fall in male WPRs has accompanied an increase in the male workforce from 5.4 lakh to 6.5 lakh between 1991-2001, this has been outweighed by the rise in the male non-working population from 4.5 lakh to 6.1 lakh. The rise in female work participation has accompanied sharp growth in the female workforce from 1.1 lakh to 2.8 lakh, and consequently a slower increase in the female non-working population from 7.96 lakh to 9.0 lakh.

A marked change has obviously taken place in the gender patterns of work in Uttar Dinajpur between 1991-2001. More women than men have joined the workforce in the district, while more men than women have joined the non-working sections of the population. High main work participation among males has gradually come under challenge from growing main work participation by women. Marginal WPRs among women have also risen substantially, limiting the entry by new males into the workforce. In cumulative terms, the pull factors formerly created by high main work availability in Uttar Dinajpur district have gradually been supplanted by push factors such as growing marginalisation within the workforce. Inevitably, as will be seen in the DHDR chapter on migration and resettlement in Uttar Dinajpur, this has created conditions for growing outmigration by males internally and outside the district in search of opportunities for adequate work. The patterns of change in gender work participation are explored more thoroughly in the DHDR chapter on women's situations in Uttar Dinajpur.

**Table: Changes in Main & Marginal Work Participation in Uttar Dinajpur, 1991-2001**

CD Block	1991 Total WPR	2001 Total WPR	Change in Total WPR	1991 Total Male WPR	2001 Total Male WPR	Change in Total Male WPR	1991 Total Female WPR	2001 Total Female WPR	Change in Total Female WPR
Chopra	32.0	31.4	-0.6	54.8	48.0	-6.8	7.4	13.8	6.4
Islampur	29.5	32.7	3.2	53.3	48.9	-4.4	4.1	15.7	11.6
Goalpokhar-1	33.3	44.1	10.8	57.4	54.3	-3.1	7.2	33.2	26.0
Goalpokhar-2	34.5	33.3	-1.2	56.5	49.4	-7.1	10.9	16.1	5.2
Karandighi	37.3	39.5	2.2	57.0	49.6	-7.4	16.2	28.8	12.6
Raiganj	38.6	40.0	1.5	56.6	52.9	-3.6	19.0	26.3	7.3
Hemtabad	38.5	40.4	1.9	56.8	54.9	-1.9	18.9	25.0	6.2
Kaliaganj	38.3	45.3	7.0	57.4	57.6	0.3	17.7	32.3	14.6
Itahar	38.7	46.3	7.7	57.4	55.8	-1.6	18.8	36.5	17.7

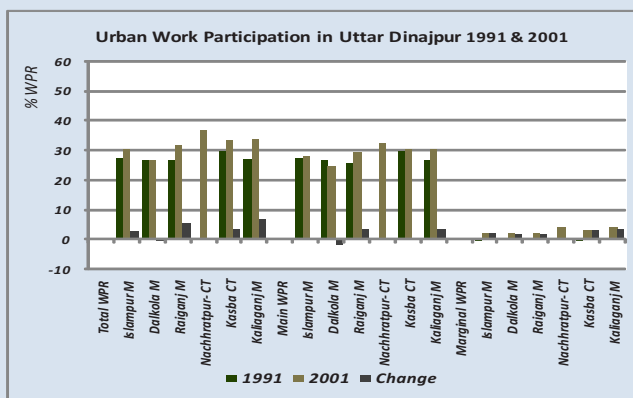
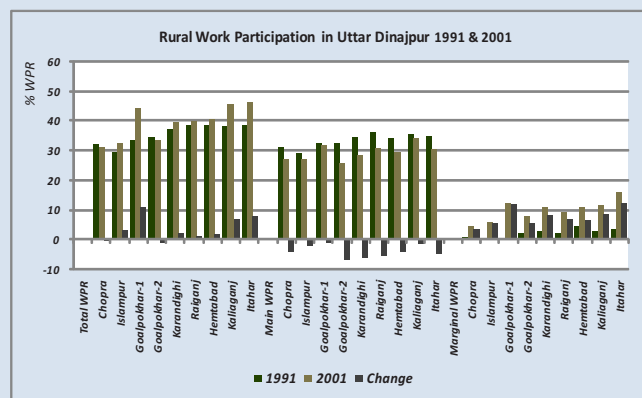
**Table: Changes in Main & Marginal Work Participation in Uttar Dinajpur, 1991-2001 (Contd.)**

CD Block	1991 Total WPR	2001 Total WPR	Change in Total WPR	1991 Total Male WPR	2001 Total Male WPR	Change in Total Male WPR	1991 Total Female WPR	2001 Total Female WPR	Change in Total Female WPR
<i>Uttar Dinajpur Rural</i>	35.7	39.2	3.5	56.3	52.1	-4.2	13.4	25.5	12.1
Islampur M	27.5	30.1	2.5	47.7	48.4	0.7	3.9	9.1	5.1
Dalkhola M	26.8	26.7	-0.1	48.1	46.5	-1.6	2.5	4.3	1.8
Raiganj M	26.4	31.8	5.4	42.9	49.5	6.6	7.1	11.8	4.7
Nachhratpur-Katabari CT	-	36.9	-	-	53.6	-	-	18.5	-
Kasba CT	29.9	33.6	3.7	51.3	54.4	3.1	5.0	9.8	4.8
Kaliaganj M	27.2	34.1	6.9	47.5	54.7	7.2	5.5	12.2	6.8
<i>Uttar Dinajpur Urban</i>	26.8	31.8	4.9	44.9	50.2	5.3	6.0	11.1	5.1
<b>Uttar Dinajpur DT</b>	<b>34.5</b>	<b>38.3</b>	<b>3.8</b>	<b>54.8</b>	<b>51.9</b>	<b>-2.9</b>	<b>12.5</b>	<b>23.8</b>	<b>11.4</b>
CD Block	1991 Main WPR	2001 Main WPR	Change in Main WPR	1991 Male Main WPR	2001 Male Main WPR	Change in Male WPR	1991 Female Main WPR	2001 Female Main WPR	Change in Female Main WPR
Chopra	31.1	27.0	-4.1	54.5	44.5	-10.0	5.8	8.4	2.7
Islampur	29.0	27.0	-2.1	53.0	44.5	-8.5	3.3	8.4	5.1
Goalpokhar-1	32.8	31.7	-1.1	57.2	47.4	-9.8	6.3	14.9	8.6
Goalpokhar-2	32.4	25.6	-6.8	56.2	43.8	-12.3	6.9	6.2	-0.6
Karandighi	34.5	28.6	-5.9	56.6	43.2	-13.4	10.9	13.2	2.3
Raiganj	36.2	30.8	-5.4	56.0	47.7	-8.3	14.5	12.7	-1.8
Hemtabad	33.9	29.5	-4.4	55.0	47.5	-7.5	11.1	10.4	-0.7
Kaliaganj	35.4	34.0	-1.4	56.7	52.1	-4.6	12.5	14.9	2.4
Itahar	35.1	30.3	-4.8	56.7	48.1	-8.6	12.2	11.8	-0.4
<i>Uttar Dinajpur Rural</i>	33.5	29.4	-4.1	55.8	46.4	-9.5	9.5	11.4	1.9
Islampur M	27.4	27.9	0.4	47.6	46.1	-1.5	3.8	7.0	3.2
Dalkhola M	26.8	24.6	-2.1	48.1	43.5	-4.6	2.4	3.3	0.8
Raiganj M	25.9	29.5	3.6	42.6	47.1	4.5	6.5	9.8	3.2
Nachhratpur-Katabari CT	-	32.6	-	-	49.9	-	-	13.5	-
Kasba CT	29.8	30.2	0.5	51.1	51.1	-0.0	4.8	6.4	1.5
Kaliaganj M	26.8	30.3	3.4	47.3	50.8	3.5	5.0	8.3	3.3
<i>Uttar Dinajpur Urban</i>	26.5	29.2	2.7	44.7	47.5	2.8	5.6	8.7	3.1
<b>Uttar Dinajpur DT</b>	<b>32.6</b>	<b>29.3</b>	<b>-3.2</b>	<b>54.3</b>	<b>46.5</b>	<b>-7.8</b>	<b>9.0</b>	<b>11.1</b>	<b>2.1</b>

**Table: Changes in Main & Marginal Work Participation in Uttar Dinajpur, 1991-2001 (Contd.)**

CD Block	1991 Marginal WPR	2001 Marginal WPR	Change in Marginal WPR	1991 Male Marginal WPR	2001 Male Marginal WPR	Change in Male Marginal WPR	1991 Female Marginal WPR	2001 Female Marginal WPR	Change in Female Marginal WPR
Chopra	1.0	4.4	3.5	0.3	3.5	3.2	1.7	5.4	3.7
Islampur	0.5	5.8	5.3	0.2	4.4	4.1	0.8	7.3	6.4
Goalpokhar-1	0.5	12.4	11.9	0.1	6.8	6.7	0.9	18.3	17.4
Goalpokhar-2	2.1	7.7	5.5	0.3	5.6	5.2	4.0	9.9	5.8
Karandighi	2.8	10.9	8.1	0.4	6.4	6.0	5.3	15.6	10.3
Raiganj	2.4	9.3	6.9	0.6	5.2	4.7	4.5	13.6	9.1
Hemtabad	4.6	10.9	6.3	1.8	7.4	5.6	7.8	14.7	6.9
Kaliaganj	2.9	11.3	8.5	0.7	5.6	4.9	5.3	17.5	12.2
Itahar	3.5	16.0	12.5	0.7	7.7	7.0	6.6	24.7	18.1
<i>Uttar Dinajpur Rural</i>	2.2	9.8	7.7	0.5	5.8	5.3	3.9	14.2	10.2
Islampur M	0.1	2.2	2.1	0.1	2.4	2.3	0.1	2.0	1.9
Dalkhola M	0.0	2.1	2.0	0.0	3.0	3.0	0.0	1.0	1.0
Raiganj M	0.4	2.3	1.8	0.3	2.4	2.1	0.6	2.1	1.5
Nachhratpur-Katabari CT	-	4.3	-	-	3.7	-	-	5.1	-
Kasba CT	0.1	3.3	3.2	0.1	3.2	3.1	0.2	3.5	3.3
Kaliaganj M	0.4	3.9	3.5	0.2	3.9	3.6	0.5	3.9	3.4
<i>Uttar Dinajpur Urban</i>	0.3	2.6	2.2	0.2	2.7	2.5	0.5	2.4	2.0
<b>Uttar Dinajpur DT</b>	<b>1.9</b>	<b>9.0</b>	<b>7.1</b>	<b>0.5</b>	<b>5.4</b>	<b>4.9</b>	<b>3.5</b>	<b>12.8</b>	<b>9.3</b>

Source: Census, 1991 & 2001



The regional patterns of change in main and marginal work participation are summarised in the associated charts, which clearly show that the moderate-to-sharp falls in main WPRs that have occurred in all Uttar Dinajpur blocks have been accompanied by moderate-to-sharp increases in marginal WPRs. In all blocks except Chopra and Goalpokhar-2, the increase in marginal work participation has been strong enough to outweigh the fall in main work participation and thus produce relative increases in the block WPRs. The rise in overall WPRs has been strongest in Goalpokhar-1 (10.8%), Itahar (7.7%) and Kaliaganj (7%) because of strong escalation ranging between 8.5-12.5 percent in marginal WPRs. While these have compensated relatively modest declines in main work participation in Goapokhar-1 and Kaliaganj, the more severe decline in main work participation in Itahar has been outweighed by the remarkably strong increase in marginal WPR from 3.5 percent to 16.5 percent between 1991-2001. The strongest declines in main work participation have however occurred in the principal agricultural blocks of Raiganj, Karandighi and Goalpokhar-2, and have been accompanied by relatively strong increases in marginal work participation. In the resulting switch from main work to marginal work, overall WPRs in these blocks have increased. On the other hand, increases in overall WPRs in the urban areas of Uttar Dinajpur reflect growing main work participation. Consequently, marginal WPRs in the urban areas have remained low between 1991-2001.

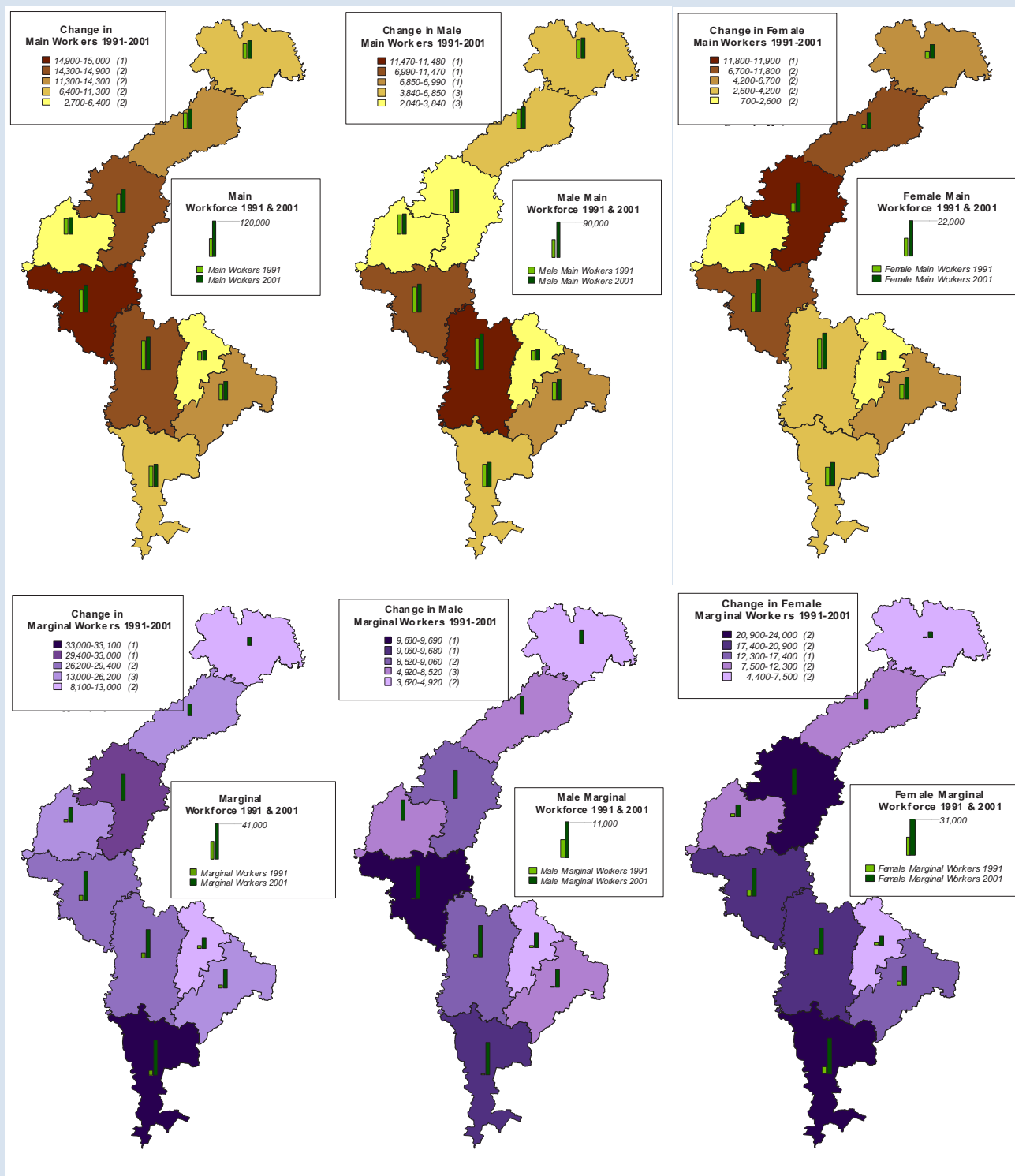
Clearly, therefore, the dynamics of work participation differ strongly between rural and urban Uttar Dinajpur. Holding more than two-thirds of the district workforce, the rural areas have been subject to much stronger livelihood pressures arising out of the relative decline in main work availability, which has forced a switchover from main work to marginal work for new entrants into the rural workforce. While rural work participation has increased in overall terms, higher engagement of women as main and marginal workers has restricted the main work opportunities accessible to rural males. Consequently, a gradual footlooseness has evolved among rural male wage-workers, encouraging them to shift locations whenever they can find better work opportunities. Labour dynamics of a similar kind have long been in evidence in the neighbouring state of Bihar. Their recent emergence in Uttar Dinajpur raises serious concerns about rural livelihood security in the district.

The regional work participation patterns identified above can be explored more closely in the associated regional maps. As can be seen from the regional comparisons, Karandighi has experienced the highest increase in the main workforce between 1991-2001 because of strong growth in the male and female main workforce. Goalpokhar-1 on the other hand, has experienced the strongest increase in the female main workforce while the growth of the male main workforce has been limited. In Raiganj block, the opposite has been true with strong growth in the male main workforce and modest growth in the number of female main workers. Thus although the three blocks together account for the bulk of the increase in the main workforce in Uttar Dinajpur, Karandighi is the only block where main work opportunities have risen appreciably for both male and female workers. The growth in the female main workforce has also been more widespread across Islampur SD where most blocks except Goalpokhar-2 show relatively high increases in female main workers. Kaliaganj is the only block in Raiganj SD where the increase in female main workers has been appreciable. The growth of the main workforce is much more localised around Raiganj, Karandighi and, to a more limited extent, Kaliaganj.

The increase in the marginal workforce has been better dispersed across Uttar Dinajpur, with most blocks showing sizeable increases in male and female marginal workers. Besides, the large increase in the main workforce, Karandighi has also experienced large increases in the number of male and female marginal workers, while in Itahar, the growth of the marginal workforce has been strongest among both males and females. In general, except for Karandighi in the case of male marginal workers and Goalpokhar-1 in the case of female marginal workers, most Islampur SD blocks have experienced less marginalisation within the workforce and are also able to offer more work opportunities to male and female main workers. Outside Raiganj block, the opportunities for main work are limited in the Raiganj SD blocks, and consequently more workers there have to depend on marginal work opportunities.



**MAP : Changes in Main & Marginal Workforce in Uttar Dinajpur District, 1991-2001**



**Occupational Patterns within the Workforce**

As had been noted earlier, Uttar Dinajpur is still a primarily agricultural district in terms of the principal source of livelihood of its working population, despite the fact that the value of the sectoral contribution made by agriculture to the district domestic product has been shrinking steadily over the past two decades. Coupled with falling main work participation and rising marginalisation within the district workforce, high

livelihood dependence on agriculture in the face of the worsening terms of trade against the agricultural sector can have a potentially impoverishing effect on the labour situation in the district. The ultimate solution to this problem obviously lies in the economic possibility of shifting a significant section of the farm based workforce into other non-farm based sectors. The current functional classification of the Uttar Dinajpur workforce needs to be studied further in this context.

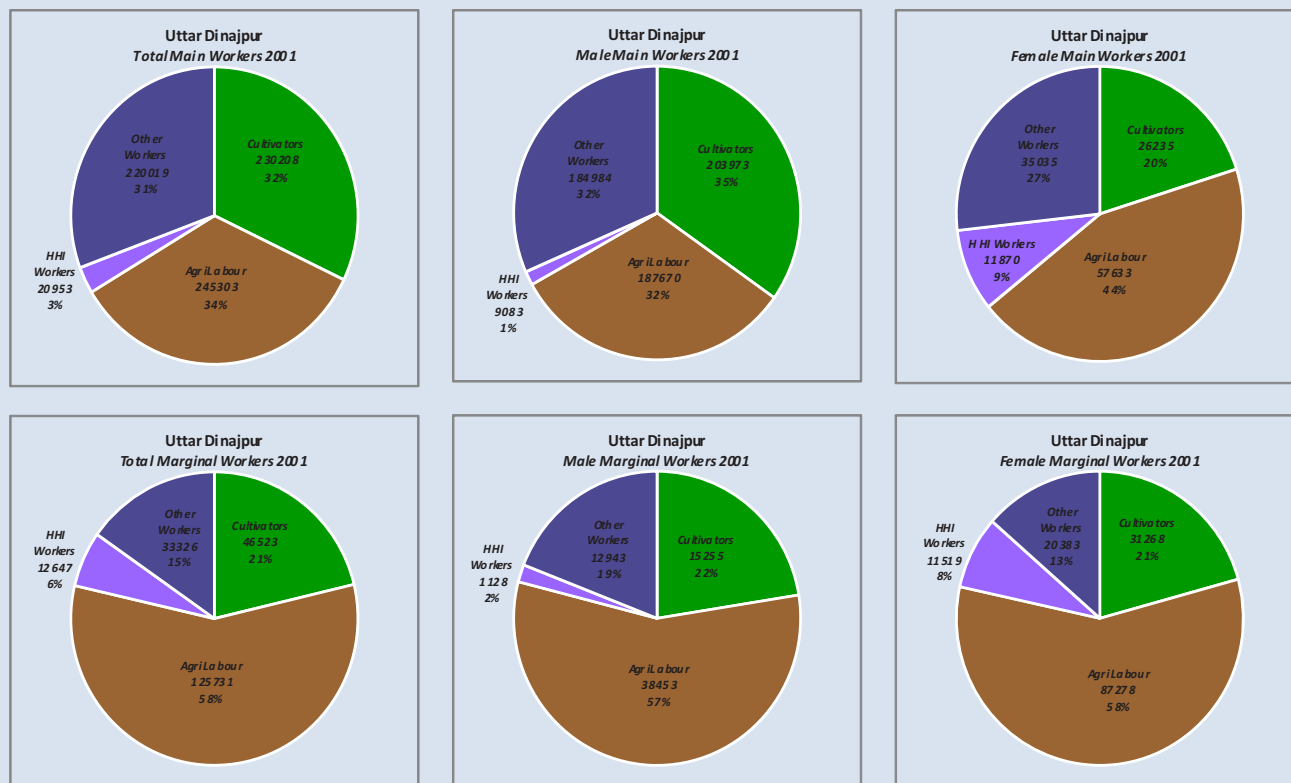
In terms of the four-fold occupational classification in the 2001 Census, the activities of *cultivators* and *agricultural labourers* belong to the primary sector, while the activities of *household industry [HHI] workers* and *other workers* belong to the secondary and tertiary sectors. Cultivators may either operate their own lands or lands which they hold on cash or share tenancies and may actually farm the lands themselves or with the engagement of hired wage labour. Landowners deriving rental income from leased-out land who do not participate directly or in a supervisory capacity in cultivations do not come under the census definition of cultivators. While cultivation activities cover the gamut of agricultural operations connected with the growing of seasonal and perennial crops including tree crops and orchardry, plantation crops are excluded from the definition. Rural workers may be hired to perform the actual operations connected with cultivation. As long as their labour is compensated through wages and does not involve the sharing of cultivator risks in any form, these workers come under the classification of agricultural labourers. So long as they are operated by one or more members of the same household and are conducted on a non-industrial scale from the precincts of the household or village, household industries may include unregistered manufacturing in conjunction with various other activities involving processing, repairs & servicing and sales (not pure retail). However, trade & business and other professional services are excluded from the definition and come under the definition of other work which also includes all other activities not connected with agriculture and household industry.

**Table: Workforce Composition in Uttar Dinajpur, 2001**

	Total Workers	Total Cultivators	Total Agri Labourers	Total HHI Workers	Total Other Workers	% Cultivators	% Agri Labourers	% HHI Workers	% Other Workers
Male	653677	219228	226123	10399	197927	33.5	34.6	1.6	30.3
Female	281847	57503	144911	24015	55418	20.4	51.4	8.5	19.7
Combined	935524	276731	371034	34414	253345	29.6	39.7	3.7	27.1
	Main Workers	Main Cultivators	Main Agri Labourers	Main HHI Workers	Main Other Workers	% Main Cultivators	% Main Agri Labourers	% Main HHI Workers	% Main Other Workers
Male	585710	203973	187670	9083	184984	34.8	32.0	1.6	31.6
Female	130773	26235	57633	11870	35035	20.1	44.1	9.1	26.8
Combined	716483	230208	245303	20953	220019	32.1	34.2	2.9	30.7
	Marginal Workers	Marginal Cultivators	Marginal Agri Labourers	Marginal HHI Workers	Marginal Other Workers	% Marginal Cultivators	% Marginal Agri Labourers	% Marginal HHI Workers	% Marginal Other Workers
Male	67967	15255	38453	1316	12943	22.4	56.6	1.9	19.0
Female	151074	31268	87278	12145	20383	20.7	57.8	8.0	13.5
Combined	219041	46523	125731	13461	33326	21.2	57.4	6.1	15.2

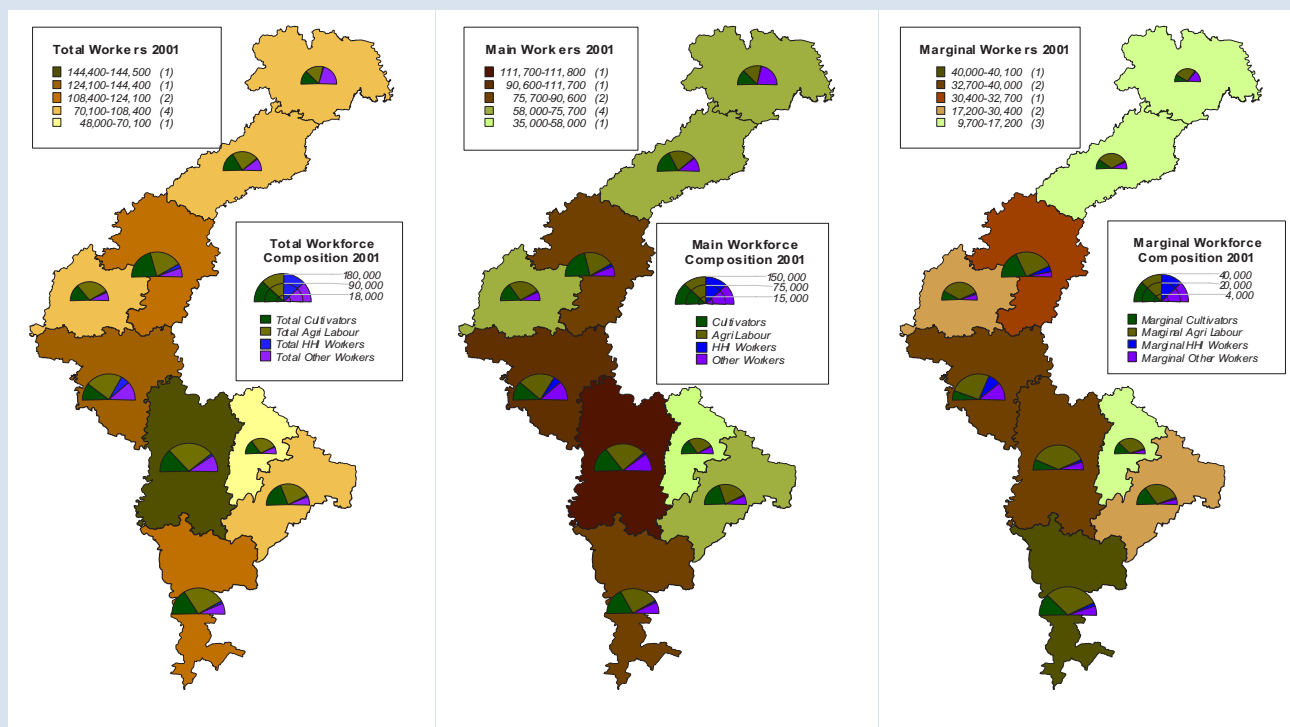
Source: Census of India, 2001

Workforce Composition in Uttar Dinajpur, 2001



Under the four-fold occupational classification of Census 2001 work participation, Uttar Dinajpur continues to be a predominantly agricultural district with 4.76 lakh (66%) of its total main workforce of 7.15 lakh main workers, and another 1.72 lakh (79%) of its total marginal workforce of 2.19 lakh marginal workers drawing direct livelihoods from cultivation and agricultural labour. Thus the aggregate size of the agricultural workforce in the district amounting to 6.48 lakh main and marginal workers, represented nearly 70 percent of the total working population of 9.36 lakh workers in 2001, with around 30 percent comprising main and marginal cultivators and 40 percent comprising main and marginal agricultural labourers. Within the main workforce, the proportions of cultivators and agricultural labourers were more equal, at 32 percent and 34 percent respectively. Workers in non-agricultural occupations comprised around 30 percent of the total workforce and over 33 percent of the main workforce, establishing that development of the non-farm sector plays a key role in expanding the opportunities for main work. However, the contribution of the non-farm sector to the creation of marginal work opportunities was much more restricted at around 21 percent of the total marginal workforce.

MAP : Regional Distribution of Uttar Dinajpur Workforce by Occupations, 2001



In Uttar Dinajpur, the highest concentrations of rural main and marginal workers occur in the contiguous sub-region that spreads southwards from Goalpokhar-1 through the blocks of Karandighi and Raiganj into Itahar. In Chopra and Islampur, Goalpokhar-2 and Hemtabad and Kaliaganj which form the extended peripheries to the north, the west and the east of this region, the concentrations of main and marginal workers are much thinner. Throughout rural Uttar Dinajpur, the main and marginal workforce is dominated by agricultural activities. However, agricultural labour occupies a larger place within the marginal workforce in relative terms, while cultivation activities have a stronger presence within the main workforce. Main and marginal agricultural labourers constitute the bulk of workforce in the Raiganj SD blocks, although marginal cultivation through seasonal tenancies or through work-sharing between members of cultivator households rise to relatively significant levels in Itahar, Kaliaganj and Hemtabad in Raiganj SD, and in Goalpokhar-1 under Islampur SD. The strong impact of the shift from cultivation to tea plantations in Chopra is seen in the dominant presence of other non-farm workers within the rural workforce. Non-farm activities also have a relatively strong presence in Raiganj and Karandighi, both among main and marginal workers. HHI activities record their strongest presence in Karandighi because of the proliferation of unorganised manufacturing and artisanal activities, along with other home based activities like *beedi* binding which engage vast numbers of rural women. Elsewhere through the district, the presence of HHI activities is thin, except in Goalpokhar-1. In terms of workforce sizes, Raiganj and Karandighi are in a more favourable position despite their large populations, because of the diversification of the livelihood activities and the greater opportunities that exist for main work. Accordingly, their workforce is better distributed among both main and marginal categories. In Itahar and Goalpokhar-1, in contrast, the size of the marginal workforce exceeds the overall size of the main workforce, indicating that livelihood pressures in these blocks are becoming severe.

Table: Occupational Classification of the Uttar Dinajpur Workforce, 2001

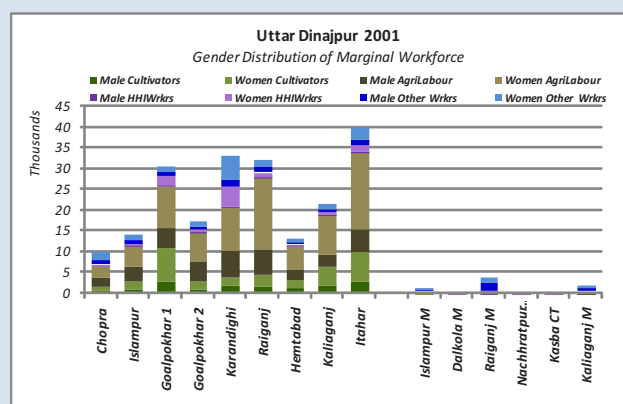
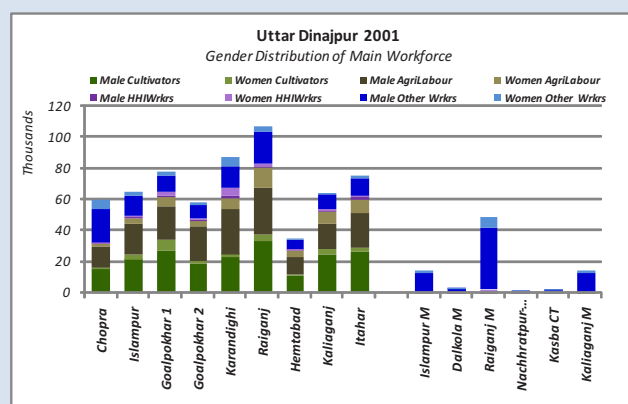
CD Block	Total Cultivators	Total Agricultural Labourers	Total HHI Workers	Total Other Workers	Total Workers	% Total Cultivators	% Total Agricultural Labourers	% Total Agricultural Workers	% Total HHI Workers	% Total Other Workers
Chopra	18273	20376	1040	30404	70093	26.1	29.1	55.1	1.5	43.4
Islampur	27763	32182	1267	17996	79208	35.1	40.6	75.7	1.6	22.7
Goalpokhar-1	45526	42403	5142	15099	108170	42.1	39.2	81.3	4.8	14.0
Goalpokhar-2	23237	38341	2004	11786	75368	30.8	50.9	81.7	2.7	15.6
Karandighi	29332	52578	11834	26588	120332	24.4	43.7	68.1	9.8	22.1
Raiganj	42373	66388	3202	27050	139013	30.5	47.8	78.2	2.3	19.5
Hemtabad	14974	24192	941	7907	48014	31.2	50.4	81.6	2.0	16.5
Kaliaganj	34487	37013	2043	12619	86162	40.0	43.0	83.0	2.4	14.6
Itahar	39361	55029	3641	17592	115623	34.0	47.6	81.6	3.1	15.2
Islampur M	534	751	241	14332	15858	3.4	4.7	8.1	1.5	90.4
Dalkhola M	58	86	46	3524	3714	1.6	2.3	3.9	1.2	94.9
Raiganj M	175	579	2037	49717	52508	0.3	1.1	1.4	3.9	94.7
Nachhratpur-Katabari CT	101	84	251	1453	1889	5.3	4.4	9.8	13.3	76.9
Kasba CT	59	287	243	2714	3303	1.8	8.7	10.5	7.4	82.2
Kaliaganj M	478	745	482	14564	16269	2.9	4.6	7.5	3.0	89.5
<b>Uttar Dinajpur DT</b>	<b>276731</b>	<b>371034</b>	<b>34414</b>	<b>253345</b>	<b>935524</b>	<b>29.6</b>	<b>39.7</b>	<b>69.2</b>	<b>3.7</b>	<b>27.1</b>
CD Block	Total Cultivators	Total Agricultural Labourers	Total HHI Workers	Total Other Workers	Total Workers	% Total Cultivators	% Total Agricultural Labourers	% Total Agricultural Workers	% Total HHI Workers	% Total Other Workers
Chopra	16546	15496	801	27419	60262	27.5	25.7	53.2	1.3	45.5
Islampur	24925	23547	925	15809	65206	38.2	36.1	74.3	1.4	24.2
Goalpokhar-1	34612	27483	2718	12902	77715	44.5	35.4	79.9	3.5	16.6
Goalpokhar-2	20335	26456	1348	9890	58029	35.0	45.6	80.6	2.3	17.0
Karandighi	25362	35965	6628	19261	87216	29.1	41.2	70.3	7.6	22.1
Raiganj	37893	42881	2127	23893	106794	35.5	40.2	75.6	2.0	22.4
Hemtabad	11804	15907	668	6678	35057	33.7	45.4	79.0	1.9	19.0
Kaliaganj	28001	24653	1313	10662	64629	43.3	38.1	81.5	2.0	16.5
Itahar	29448	31017	1939	13254	75658	38.9	41.0	79.9	2.6	17.5
Islampur M	494	526	177	13493	14690	3.4	3.6	6.9	1.2	91.9
Dalkhola M	55	68	31	3271	3425	1.6	2.0	3.6	0.9	95.5
Raiganj M	170	517	1559	46497	48743	0.3	1.1	1.4	3.2	95.4
Nachhratpur-Katabari CT	95	66	188	1318	1667	5.7	4.0	9.7	11.3	79.1
Kasba CT	58	192	210	2514	2974	2.0	6.5	8.4	7.1	84.5
Kaliaganj M	410	529	321	13158	14418	2.8	3.7	6.5	2.2	91.3
<b>Uttar Dinajpur DT</b>	<b>230208</b>	<b>245303</b>	<b>20953</b>	<b>220019</b>	<b>716483</b>	<b>32.1</b>	<b>34.2</b>	<b>66.4</b>	<b>2.9</b>	<b>30.7</b>

**Table: Occupational Classification of the Uttar Dinajpur Workforce, 2001 (Contd.)**

CD Block	Total Cultivators	Total Agricul-tural Labourers	Total HHI Workers	Total Other Workers	Total Workers	% Total Cultivators	% Total Agricul-tural Labourers	% Total Agricul-tural Workers	% Total HHI Workers	% Total Other Workers
Chopra	1727	4880	239	2985	9831	17.6	49.6	67.2	2.4	30.4
Islampur	2838	8635	342	2187	14002	20.3	61.7	81.9	2.4	15.6
Goalpokhar-1	10914	14920	2424	2197	30455	35.8	49.0	84.8	8.0	7.2
Goalpokhar-2	2902	11885	656	1896	17339	16.7	68.5	85.3	3.8	10.9
Karandighi	3970	16613	5206	7327	33116	12.0	50.2	62.2	15.7	22.1
Raiganj	4480	23507	1075	3157	32219	13.9	73.0	86.9	3.3	9.8
Hemtabad	3170	8285	273	1229	12957	24.5	63.9	88.4	2.1	9.5
Kaliaganj	6486	12360	730	1957	21533	30.1	57.4	87.5	3.4	9.1
Itahar	9913	24012	1702	4338	39965	24.8	60.1	84.9	4.3	10.9
Islampur M	40	225	64	839	1168	3.4	19.3	22.7	5.5	71.8
Dalkhola M	3	18	15	253	289	1.0	6.2	7.3	5.2	87.5
Raiganj M	5	62	478	3220	3765	0.1	1.6	1.8	12.7	85.5
Nachhratpur-	6	18	63	135	222	2.7	8.1	10.8	28.4	60.8
Katabari CT										
Kasba CT	1	95	33	200	329	0.3	28.9	29.2	10.0	60.8
Kaliaganj M	68	216	161	1406	1851	3.7	11.7	15.3	8.7	76.0
<b>Uttar Dinajpur DT</b>	<b>46523</b>	<b>125731</b>	<b>13461</b>	<b>33326</b>	<b>219041</b>	<b>21.2</b>	<b>57.4</b>	<b>78.6</b>	<b>6.1</b>	<b>15.2</b>

Source: Census, 2001

The distribution of gender categories within the main and marginal workforce are summarised by the accompanying bar charts, which clearly show that the dominance of male main workers in all four occupational activities is accompanied by the dominance of women workers in these activities in the marginal workforce. Thus the dominance of marginal cultivators and marginal agricultural labourers in blocks like Itahar and Goalpokhar-1 and of marginal agricultural labourers in most of the other blocks in the regional maps reflect the higher presence of women in the marginal workforce. The implications are discussed more fully in the gender chapter of the DHDR.



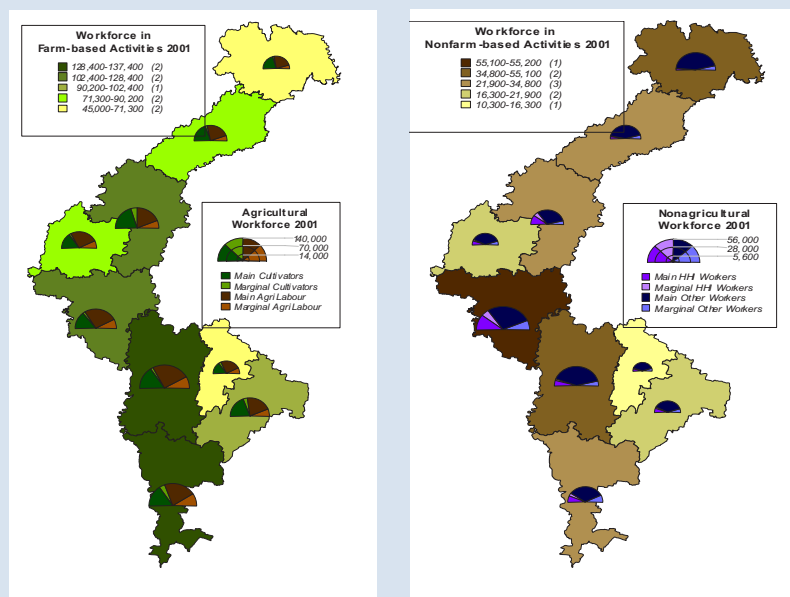
### Sectoral Workforce in Uttar Dinajpur

Although the overall WPR for rural workers in Uttar Dinajpur rose significantly from 35 to 38 percent between 1991-2001, the extent of main work participation declined from around 33 percent in 1991 to less than 30 percent in 2001. The apparent increase in rural work participation thus occurred principally because of escalation in the proportion of marginal workers from 1.9 percent of the rural workforce in 1991 to over 8 percent in 2001. Since the aggregate size of the rural workforce also rose considerably in absolute terms between 1991-2001, this would imply that a substantial proportion of the new entrants into the Uttar Dinajpur rural workforce have only been able to find short term or casual work opportunities. Under such circumstances, the rise in overall rural WPR in the district suggests that the expansion in the rural workforce and the entry of new workers has resulted from the intensification of livelihood pressures in Uttar Dinajpur, rather than because of the expansion of livelihood opportunities overall.

Till 1991, the expansion of main work opportunities in Uttar Dinajpur had generally kept an even pace with the growth of the rural workforce. As a result, out of the aggregate rural workforce of 5.86 lakh workers in 1991, 94 percent were engaged as main workers in activities like cultivation (42.6%), agricultural labour (38.3%), HHI industries (1.5%) and other non-farm work (11.6%), while only 6 percent had comprised the marginal workforce. With the sharp increase in the district population between 1991-2001 and the slow expansion of work opportunities, the size of the main workforce had shrunk to 75 percent of the aggregate rural workforce of 8.42 lakh, while another 14.9 percent were engaged as marginal workers. Thus while the aggregate workforce engaged in farm based activities rose to over 6.43 lakh, nearly 27 percent of it comprised marginal workers. Similar declines in main work participation did not however occur in non-farm activities. Main work participation in HHI activities almost doubled from 1.6 percent in 1991 to around 3 percent in 2001, and rose from 12 percent to 22 percent over the same period in the case of other non-farm activities.

Clearly, therefore, the alleviation of current rural livelihood pressures in the district requires either the intensification of multi-crop agriculture across all Uttar Dinajpur blocks, or alternatively the diversification of rural non-farm livelihoods on a massive scale throughout the district. Neither alternative is easy to achieve. Agricultural intensification requires the provision of agricultural inputs like improved irrigation on an equally massive scale, as well as a shift to more labour intensive cropping patterns. The absolute limits to this are obviously set by local agroclimatic and soil conditions and water resource endowments, as well as by purely economic determinants such as the prevailing levels of agricultural wages and prices. High wage levels may encourage farm mechanisation and trigger labour displacement, while low wage levels can encourage increased labour engagement without commensurate improvements in rural incomes. High price levels can reduce the offtake in agricultural markets, while low price levels can render crop operations unremunerative. Conversely, the diversification of non-farm activities requires triggers like accelerated urbanisation as well as the provision of infrastructural amenities like improved access to roads and power and markets, as well as to augmented credit facilities. Neither solution can be imposed from outside, without first reading the recent signals that have been emanating from the Uttar Dinajpur district economy. The core signals that need to be read pertain to the current disposition of farm based and non-farm activities across the district.

**MAP: Sectoral Workforce in Uttar Dinajpur, 2001**



Engaging over 80 percent of the rural workforce in blocks like Goalpokhar-1, Goalpokhar-2, Hemtabad, Kaliaganj and Itahar, and between 75-78 percent in Islampur and Raiganj blocks, farm based activities provided livelihoods for nearly 77 percent of all rural workers in Uttar Dinajpur in 2001. Chopra and Karandighi were thus the only Uttar Dinajpur blocks where livelihood diversifications outside the farm sector had reduced livelihood dependence on agricultural activities to some extent. Representing the traditional farm based economy of Uttar Dinajpur, the presence of agricultural activities across the district was relatively even. Thus the high concentration of agricultural workers in certain populous blocks stretching southwards from Goalpokhar-1 to Itahar reflected the patterns of settlement density in these blocks, rather than the uneven spread of agriculture as a primary occupation. In most blocks other than Itahar, Kaliaganj and Goalpokhar-1, the bulk of the farm based workforce was composed of main and marginal agricultural labourers. In the three named blocks, however, main and marginal cultivators constituted a fairly significant segment within the farm based workforce.

Instead of being distributed evenly across Uttar Dinajpur, non-farm activities had a more localised concentration in certain blocks, with Karandighi, Raiganj and Chopra forming the principal locations. Elsewhere through the district, the size of the non-farm workforce was relatively small. Although Karandighi accounted for the largest numeric concentration of non-farm workers followed by Chopra and Raiganj, nearly 45 percent of rural workforce in Chopra comprised non-farm workers as a direct consequence of the spread of small-grower tea plantations in the block. In Karandighi, non-farm workers comprised just under a third of the rural workforce, while in Raiganj they had a share of just under 22 percent.

**Changing Livelihoods in Uttar Dinajpur**

Between 1991-2001, the proportion of cultivators in West Bengal as a ratio to the total workforce fell steeply from over 29 percent to 19 percent. The fall was primarily the result of an absolute decline in the number of male cultivators from 55.3 lakh in 1991 to 46.6 lakh in 2001. While the number of women cultivators rose over the period from 8.8 lakh to nearly 10 lakh, this was not enough to offset the decline in male cultivators, as a consequence of which the absolute number of cultivators in the state also fell drastically by over 7.5 lakh. In India as a whole, the absolute number of cultivators rose from 11.1 crore to 12.7 crore, although as a ratio to the Indian workforce, their proportion declined from around 39 percent to 32 percent. While the number of male cultivators also declined by 30.6 lakh from 8.85 crore to 8.54 crore over the



period, the fall was more than made up by the steep rise in the number of women cultivators from 2.2 crore to 4.2 crore. Although the changes at state and national level followed the same direction in absolute terms, with women cultivators stepping in to fill the breach created by the falling presence of men, the relative magnitudes were different. As a result, while the overall presence of cultivators in the West Bengal workforce declined in proportionate terms for men as well as for women and for their cumulative number, the proportionate presence of male cultivators and of cultivators as a whole declined within the Indian workforce while the proportionate presence of women cultivators increased.

While the proportionate presence of agricultural labourers in the West Bengal workforce remained steady at 25 percent, their absolute number rose by 18.8 lakh from 54.8 lakh in 1991 to 73.6 lakh. In India, their absolute number rose by 3.2 crore from 7.5 crore in 1991 to 10.7 crore in 2001, producing a marginal increase in their proportionate share in the Indian workforce which rose from 26.1 to 26.5 percent. In West Bengal and in India, the proportionate presence of male agricultural labourers in the workforce declined despite their numeric increase, while the presence of women agricultural labourers in proportional terms rose marginally within West Bengal and much more strongly within India as a whole. West Bengal, however, experienced strong absolute escalation of 18.8 lakh in the overall presence of agricultural labourers, divided into an absolute increase of 9.3 lakh among men and 9.5 lakh among women. In India, the corresponding increases in absolute terms amounted to 1.1 crore for male agricultural labourers, 2.1 crore for women and 3.2 crore for agricultural labourers as a whole.

**Table: Changes in Composition of Agricultural Workforce, 1991-2001  
Uttar Dinajpur, West Bengal & India**

	Uttar Dinajpur Culti- vators	% of Work- force	Uttar Dinajpur Agri Labourers	% of Work- force	West Bengal Cultivators	% of Work- force	West Bengal Agri Labourers	% of Work- force	All India Cultivators	% of Work- force	All India Agri Labourers	% of Work- force
<b>1991</b>												
Total	254,208	38.9	229,670	35.1	6,407,349	29.2	5,481,548	25.0	110,702,346	38.7	74,597,744	26.1
Males	241,736	36.9	179,083	27.4	5,525,006	25.2	4,147,375	18.9	88,480,942	30.9	46,164,747	16.1
Females	12,472	1.9	50,587	7.7	882,343	4.0	1,334,173	6.1	22,221,404	7.8	28,432,997	9.9
<b>2001</b>												
Total	276,731	29.6	371,034	39.7	5,653,922	19.2	7,362,957	25.0	127,312,851	31.7	106,775,330	26.5
Males	219,228	23.4	226,123	24.2	4,655,210	15.8	5,080,236	17.2	85,416,498	21.2	57,329,100	14.3
Females	57,503	6.1	144,911	15.5	998,712	3.4	2,282,721	7.7	41,896,353	10.4	49,446,230	12.3
<b>1991-2001 Change</b>												
Total	22,523	-9.3	141,364	4.6	-753,427	-10.1	1,881,409	0.0	16,610,505	-7.1	32,177,586	0.5
Males	-22,508	-13.5	47,040	-3.2	-869,796	-9.4	932,861	-1.7	-3,064,444	-9.7	11,164,353	-1.9
Females	45,031	4.2	94,324	7.8	116,369	-0.6	948,548	1.7	19,674,949	2.6	21,013,233	2.3

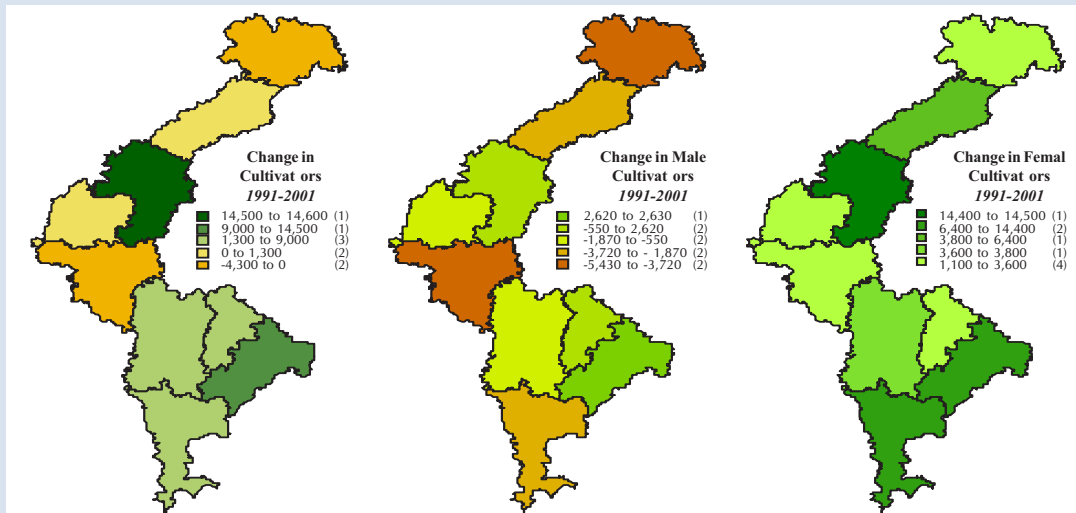
Source: Census, 1991 & 2001

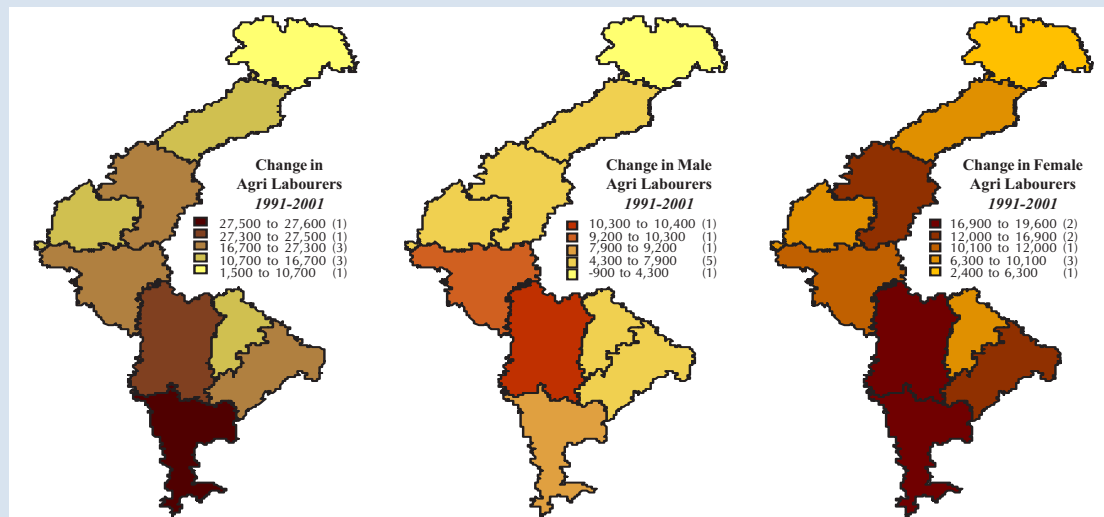
Given these shifting national and state scenarios in agricultural livelihoods, the recent changes that have occurred within the composition of the agricultural workforce in Uttar Dinajpur can be reviewed contextually. In 1991, total livelihood dependence on the agricultural sector was much stronger in Uttar Dinajpur than either in West Bengal in India, because of the lack of adequate development within the non-farm sector. By

2001, the overall level of dependence on farm based livelihoods had declined steeply within West Bengal and somewhat less strongly in India. Although livelihood change followed a similar direction in Uttar Dinajpur, the overall decline in the dependence on farm based livelihoods was less marked. There was, instead, a pronounced increase in the participation of women in cultivation and agricultural labour oriented activities, the strength of which was much greater in Uttar Dinajpur than either in West Bengal or in India. Although the proportionate presence of male workers within the agricultural workforce continued to be stronger in Uttar Dinajpur than in West Bengal in India because of the dearth of adequate work opportunities outside the agricultural sector, the relative decline in their participation between 1991-2001 was also stronger in Uttar Dinajpur than in West Bengal in India. This opened the way for women to enter the agricultural workforce in large numbers, although their participation within the agricultural workforce till 1991 had been minor.

As the associated regional maps for changes within the main agricultural workforce in Uttar Dinajpur indicate, declines in male cultivators have been widespread throughout the district, affecting all blocks with the exception of Hemtabad. In Chopra and Karandighi, the decline in the presence of male cultivators has been especially strong, and has been caused by the large scale shift of male workers to other non-agricultural livelihoods, as well as from subsistence farming to agricultural labour activities. The shift from farming to agricultural labour is mostly marked in Karandighi and Raiganj blocks, both of which are intensively irrigated blocks in the key rice-producing regions of Uttar Dinajpur. The shift of male workers from subsistence cultivation operations to agricultural labour in regions where the multicropping of rice has expanded and also assures them of more regular livelihoods because of the lengthening of the crop-cycle and increased rural demand for labourers. While women cultivators have switched gender roles by taking over subsistence farming operations increasingly from the men, they have also increased their overall presence in the rural workforce, sharing the benefits of agricultural intensification as well as the growing labour demands within the rice regions.

**MAP: Changes in Main Agricultural Workforce in Uttar Dinajpur, 1991-2001**





Unlike West Bengal which traditionally has been a state with a large non-agricultural workforce, the economy of Uttar Dinajpur has traditionally been dependent on agriculture. Accordingly, the livelihood dependence on non-farm based activities has hitherto been low. In 1991, 1.3 lakh workers were engaged in non-agricultural activities in Uttar Dinajpur, comprising a fifth of the total workforce. The corresponding number of non-agricultural workers in West Bengal exceeded 1 crore and comprised more than 45 percent of the West Bengal workforce. Thus the economic importance of the non-agricultural sector as a source of livelihood was much greater in the state of West Bengal than in India where the aggregate non-farm workforce of 10 crore comprised a little over a third of the working population. In West Bengal, the importance of traditional home based processing and manufacturing industries has traditionally been strong, and the HHI workforce comprised over 9.2 lakh workers engaging men and women in almost similar numbers. In India, the HHI workforce of 68 lakh workers was weighted more strongly in favour of male workers. Nevertheless, in 1991, HHI workers constituted over 4 percent of the aggregate state workforce in West Bengal and 2.4 percent of the total workforce in India. The proportionate share of HHI workers in the aggregate workforce of Uttar Dinajpur district was much lower at 1.5 percent, even though the proportions of male HHI workers and female HHI workers were finely balanced. At all three levels i.e. at the level of Uttar Dinajpur, West Bengal state as well as India, the bulk of the non-farm workforce was engaged in non-agricultural activities outside the home based sector. In 1991, this section comprised under a fifth of the aggregate workforce in Uttar Dinajpur, more than two-fifths of state workforce and close to a third of the aggregate workforce in India.

By 2001, the situation had changed significantly. In West Bengal, the size of the HHI workforce had risen steeply to over 21.7 lakh, with the number of women HHI workers trebling over the period. Thus the switch away from agriculture in the state that had been noticed above led to a strong flow of workers from farm based to home based activities, absorbing many new women entrants into the HHI workforce. In India too, more women than men entered the HHI workforce, turning what had previously been a male dominated activity into one where the numbers of male and female workers were finely balanced. Although more women than men also entered the HHI workforce in Uttar Dinajpur, the gender numbers had been balanced to begin with. Thus with the workforce changes between 1991-2001, women workers acquired gender dominance in home based non-agricultural activities in both Uttar Dinajpur and West Bengal, unlike India where the sector became more gender balanced. Beside these worker inflows into HHI activities, there were also substantial inflows of workers into other non-farm based activities. Thus in West Bengal, the total number of workers engaged in such activities rose by nearly 52 lakh between 1991-2001 from just under 91 lakh to over 1.42 crore, with the proportionate presence of other non-farm workers rising from 42 percent of the state workforce in 1991 to 48.5 percent in 2001. Although the increased worker inflows into

the sector primarily comprised male workers, in proportional terms the participation of women rose faster than that of men. For India as a whole too, similar characteristics prevailed with the proportionate participation of women workers in other non-farm activities rising faster than that of men. However the shift from other livelihood activities to other non-farm activities was not as strong as in West Bengal, as a result of which the proportionate share of other non-farm workers in the total workforce in India amounted to 37.6 percent, against a share of 48.5 percent in West Bengal. Despite the increasing inflow of workers into other non-farm activities in Uttar Dinajpur, the district lagged behind considerably compared to West Bengal and India, with workers in this sector composing 27 percent of the district workforce. Also unlike West Bengal and India, the inflow of women workers into these activities was much slower in Uttar Dinajpur and the workers migrating to this sector were dominantly men.

**Table: Changes in Composition of Non-Agricultural Workforce, 1991-2001**  
*Uttar Dinajpur, West Bengal & India*

	Uttar Dinajpur HHI Works	% of Work- force	Uttar Dinajpur Other Workers	% of Work- force	West Bengal HHI Workers	% of Work- force	West Bengal Other Workers	% of Work- force	All India HHI Workers	% of Work- force	All India Agri Workers	% of Work- force
<b>1991</b>												
Total	9,694	1.5	119,965	18.5	929,002	4.2	9,096,875	41.5	6,804,021	2.4	93,828,382	32.8
Males	4,893	0.8	106,076	16.3	523,633	2.4	8,055,905	36.8	4,555,016	1.6	82,457,879	28.8
Females	4,801	0.7	13,889	2.1	405,369	1.8	1,040,970	4.8	2,249,005	0.8	11,370,503	4.0
<b>2001</b>												
Total	34,414	3.7	253,345	27.1	2,172,070	7.4	14,292,741	48.5	16,956,942	4.2	151,189,601	37.6
Males	10,399	1.1	197,927	21.2	917,180	3.1	11,735,418	39.8	8,744,183	2.2	123,524,695	30.7
Females	24,015	2.6	55,418	5.9	1,254,890	4.3	2,557,323	8.7	8,212,759	2.0	27,664,906	6.9
<b>1991-2001 Change</b>												
Total	24,720	2.2	133,380	8.6	1,243,068	3.1	5,195,866	7.0	10,152,921	1.8	57,361,219	4.8
Males	5,506	0.4	91,851	4.8	393,547	0.7	3,679,513	3.0	4,189,167	0.6	41,066,816	1.9
Females	19,214	1.8	41,529	3.8	849,521	2.4	1,516,353	3.9	5,963,754	1.3	16,294,403	2.9

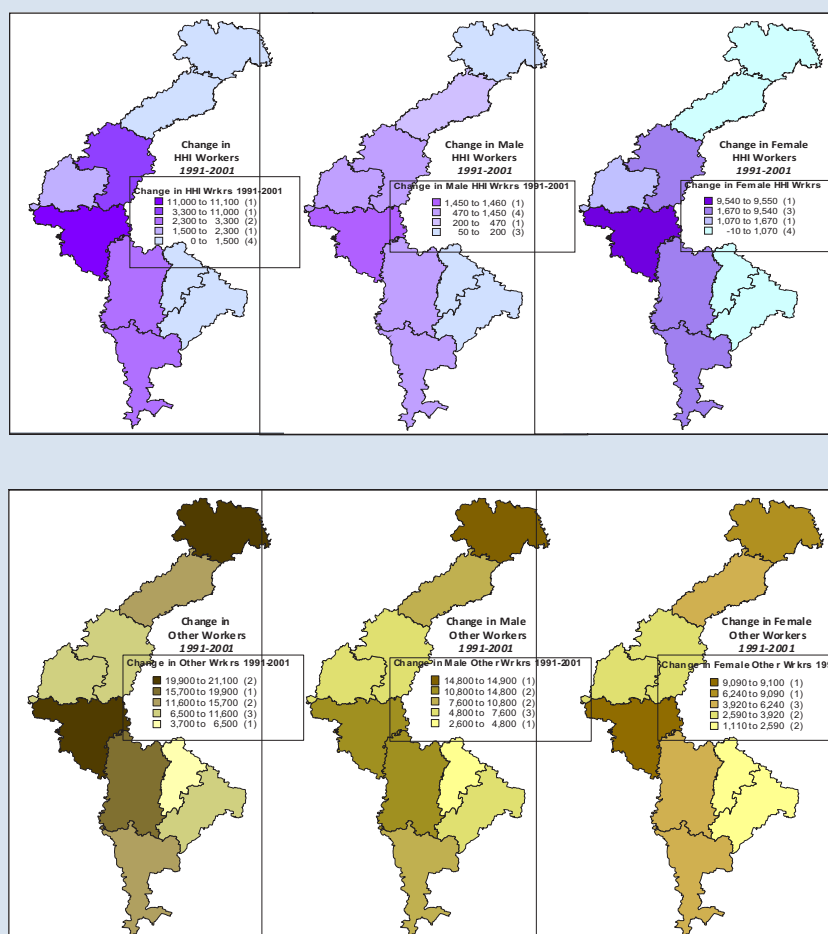
Source: Census, 1991 & 2001

In regional terms, worker inflows into HHI activities have been much stronger in case of women workers and are dispersed more evenly across the Uttar Dinajpur blocks. The main concentrations of these transfers are in the chain of blocks stretching down from Goalpokhar-1 to Itahar. Karandighi in particular has seen high inflows of workers to HHI activities, because of the involvement of large groups of rural women in home based *beedi* manufacture. However, the scale of transfers to HHI activities was low in the primarily agricultural blocks of Islampur, Goalpokhar-2, Hemtabad and Kaliaganj. Since in relative terms, these blocks had thinner population density and thus suffered from lower land and livelihood pressures, the push factors that impel livelihood shifts from the farm to non-farm sector were weaker in these subregions. Thus as seen in the earlier regional maps, new women entrants into the workforce in these sub-regions tended to take up cultivation and agricultural labourer activities.

The men making such livelihood transitions, on the other hand, had a stronger motivation to enter other non-farm activities, and the largescale livelihood changes in Chopra, Karandighi and Raiganj blocks were

driven by transfers of male workers from farm based to other non-farm activities. While in Chopra, these primarily comprised wage-work on small-grower tea plantations, in Karandighi and Raiganj they spread over a wider economic spectrum including construction and transport as well as repairs, processing and other semi-industrial activities. To a lesser extent, the same transitions to non-farm activities have occurred in other blocks like Islampur and Itahar, while women workers have also made a relatively strong entry into other non-farm activities in Chopra and Karandighi. In most Uttar Dinajpur blocks however, lowered participation of men in agricultural activities have also opened up substantial livelihood avenues for women workers in the farm sector. Thus the transition of women entrants to non-farm activities has generally been low, except in densely populated blocks like Karandighi where agricultural main work opportunities are already saturated.

**Map : Changes in Main Non-Agricultural workforce in Uttar Dinajpur, 1991-2001**



### Agrarian Situation in Uttar Dinajpur

The exploration of work and livelihood situations within Uttar Dinajpur effectively establishes that the economic wellbeing of large sections of the rural population in the district will continue to depend for some time to come on conditions within the agricultural sector. In spite its being a populous district with high rates of work participation, the economy of Uttar Dinajpur is not diversified enough to permit the largescale transfer of workers from agriculture into secondary and tertiary activities. By long tradition, the district has been a rice-producing region, with the strongly entrenched institutions that are characteristic of a peasant economy. Farming in Uttar Dinajpur is not carried out on a commercial scale, but has generally been geared towards subsistence production on small family farms, with small amounts of surplus that

enter the marketing chain through the widespread network of primary rural *haats* and other assembly markets. Nevertheless, the migration into Uttar Dinajpur of cultivators endowed with a superior set of land management skills, drawn in initially by easy prospects of securing land on purchase or lease, and more lately by the growing accessibility of groundwater based irrigation on a sizeable scale has gradually altered the institutional character of agriculture in the district. Stabilisation of land relations through the recording of *barga* tenancies, which has controlled the problem of tenant evictions, has also strengthened the stakes for agricultural advancement in the district.

The rapid spread of *boro* rice cultivation through Uttar Dinajpur, despite its being a relatively late arrival in North Bengal, offers a strong instance of the vast potential for agriculture based development that still exists within the district. Grown as a commercial rice crop under entirely irrigated conditions by farmers with a strong entrepreneurial response, the spread of *boro* cultivation has been accelerated by the institution of unrecorded seasonal tenancies which allows small farmers with private access to groundwater irrigation to expand their operational holdings by leasing in unused lands from farmers around them for the intended duration of the *boro* season. Data from the Agricultural Census 2000-01 show for instance that nearly 97 percent of the cultivators who operate partly leased-in agricultural holdings in Uttar Dinajpur belong to the small and marginal farmer groups, collectively accounting for about three-fourths of the land acquired on partial tenancies. This enables marginal farmers with an average ownership holding of 0.41ha to expand their agricultural operations over an average operational holding to 0.73ha. Small farmers with an average ownership holding of 1.2ha comprise around 18 percent of the cultivators who operate partially tenanted holdings, but collectively lease-in nearly 28 percent of the land held on partial tenancy. This enables them to extend agricultural operations over a total area exceeding 1.8ha. The accessibility of land through tenancy in various forms from indigenous farmers who either lack the entrepreneurship or the financial means to mount intensive agricultural operations involving the growing of marketable crops has been one of the prime reasons for the migration of outside agriculturists into the rural areas of Uttar Dinajpur.

However, the potential for agricultural advancement is not distributed uniformly throughout Uttar Dinajpur. The net area available for cultivation varies considerably between the blocks, partly reflecting relative variations in block-size, and also regional variations in land capability and land use. As stated earlier, the alluvial plains in Karandighi and Raiganj SD have higher land capability than the other blocks in the Islampur SD terai. Collectively, the alluvial blocks account for around 55 percent of the net cultivable area [NCA] and net sown area [NSA] in Uttar Dinajpur, but hold nearly 60 percent of the gross cropped area [GCA] available for multiple cropping and over three-fourths of the irrigated GCA. In contrast, the other Islampur SD blocks face greater agricultural constraints in the form of low NCA and NSA and limited irrigation access, lowering the overall potential for agricultural expansion. Favourable agrarian conditions in the alluvial region also favour the prospects for agricultural livelihoods. Thus the five Uttar Dinajpur blocks stretching from Karandighi to Itahar collectively account for nearly 59 percent of the district's cultivators and over 63 percent of Uttar Dinajpur's agricultural labourers.

**Table: Land, Labour & Agricultural Productivity Relations in Uttar Dinajpur**

CD Block	2001 Population	NCA [ha]	NSA [ha]	GCA [ha]	Irrigated GCA [ha]	NCA per capita [ha]	NCA per Agri Worker [ha]	GCA per Agri Worker [ha]	Irri GCA per Agri Worker [ha]	NSA per Agri Worker [ha]
Chopra	223022	26711	26686	45002	3680	0.120	0.691	1.164	0.095	0.690
Islampur	241951	24910	24868	44431	7542	0.103	0.416	0.741	0.126	0.415
Goalpokhar-1	245430	33102	32916	57246	11491	0.135	0.376	0.651	0.131	0.374
Goalpokhar-2	226472	26879	26647	52384	29639	0.119	0.437	0.851	0.481	0.433
Karandighi	304986	28356	27788	62150	36189	0.093	0.346	0.759	0.442	0.339
Raiganj	347108	37027	36904	77952	47275	0.107	0.340	0.717	0.435	0.339
Hemtabad	118822	13513	13490	28760	13921	0.114	0.345	0.734	0.355	0.344
Kaliaganj	190019	26616	26348	54331	24811	0.140	0.372	0.760	0.347	0.369
Itahar	249541	30739	30636	56857	38258	0.123	0.326	0.602	0.405	0.325
<b>U Dinajpur Rural</b>	<b>2147351</b>	<b>247853</b>	<b>246283</b>	<b>479113</b>	<b>212806</b>	<b>0.115</b>	<b>0.385</b>	<b>0.744</b>	<b>0.331</b>	<b>0.383</b>
CD Block	2001 Cultivators	2001 Agri Labour	2001 Total Agri Workers	Labour per ha NCA Cultivators	Labour per ha NCA Agri Labour	Total Rice Area [ha]	Total Rice Output [MT]	Rice Sown ha/Agri Worker	Avg Rice Yield kg/ha	Rice Yield in kg/Agri Worker
Chopra	18273	20376	38649	0.684	0.763	24260	45961	0.628	1895	1189
Islampur	27763	32182	59945	1.115	1.292	25635	45725	0.428	1784	763
Goalpokhar-1	45526	42403	87929	1.375	1.281	31010	72272	0.353	2331	822
Goalpokhar-2	23237	38341	61578	0.865	1.426	23885	58645	0.388	2455	952
Karandighi	29332	52578	81910	1.034	1.854	45480	128390	0.555	2823	1567
Raiganj	42373	66388	108761	1.144	1.793	44040	109970	0.405	2497	1011
Hemtabad	14974	24192	39166	1.108	1.790	19615	51145	0.501	2607	1306
Kaliaganj	34487	37013	71500	1.296	1.391	39240	88820	0.549	2264	1242
Itahar	39361	55029	94390	1.280	1.790	42455	98915	0.450	2330	1048
<b>U Dinajpur Rural</b>	<b>275326</b>	<b>368502</b>	<b>643828</b>	<b>1.111</b>	<b>1.487</b>	<b>295620</b>	<b>699843</b>	<b>0.459</b>	<b>2367</b>	<b>1087</b>

Source: Compiled from Census 2001, Agricultural Census 2001, & BAE&S, GoWB

Pro rata land availability ratios give further indication of the differences in regional agricultural potential within Uttar Dinajpur. Throughout the alluvial blocks, the net availability of cultivable land is low in per capita terms because of relatively high density of settlement, and does not exceed 0.37ha per agricultural worker (i.e. in ratio to the sum of cultivators + agricultural labourers). In the northern blocks in comparison, the ratio of NCA per agricultural worker uniformly exceeds 0.38ha, rising to 0.69ha per worker in Chopra. However, despite the apparent human crowding on agricultural lands in the alluvial tract, the GCA per worker uniformly surpasses 0.72ha in each block in this region, with the exception of Itahar where the population pressure on agricultural land is very high. Coupled with better irrigation conditions that render intensive multiple cropping possible, the labour absorption capacity of cultivable lands in the alluvial tract is much higher than in the terai tract. Of the average GCA surpassing 0.72ha per worker in all alluvial

blocks except Itahar, more than 0.4ha per worker is irrigated throughout this tract. Hence the net sown areas per agricultural worker remain uniformly high, touching 98-99 percent of the NCA per worker throughout the alluvial region. Since the cropping intensity (i.e. the ratio of gross cropped land to net cropped land) exceeds 200 percent in all alluvial blocks with the exception of Itahar, the total availability of agricultural work in this region greatly surpasses that in the terai, with the added advantage of being available for a longer duration through the year because of intensive multiple cropping. Itahar is the only alluvial block that has begun to show agrarian stress, not because the land is less productive but because the pressure of labour on land is too high.

Since rice is the principal crop of the district, an illustrative analysis may be made of the characteristic returns from rice cultivation in the alluvial and terai blocks. Each hectare of agricultural land in the alluvial region supports between 1-1.3 main cultivators, in addition to which it absorbs between 1.4 (Kaliaganj) to 1.9 (Karandighi) hired main agricultural labourers per ha. Agriculture in the alluvial region thus offers livelihood support to 2.5-3 agricultural workers per ha, which is considerably higher than in the terai tract. Averaging the annual returns from rice cultivation on these land and labour ratios through all paddy seasons in 2004, the rice area sown per agricultural worker ranges between 0.41-0.56ha throughout the alluvial blocks despite the fact that the agricultural workforce here is much larger. Sown areas under rice are uneven in the terai blocks, and also reflect less favourable agricultural conditions. In Chopra for instance, where the rice area sown per agricultural worker appears favourable and surpasses 0.7ha, the extent of irrigation is minimal. The annual rice productivity per ha is uniformly higher in the alluvial region, and the productivity per agricultural worker is also uniformly high, despite there being many more workers drawing agricultural livelihoods per hectare of land.

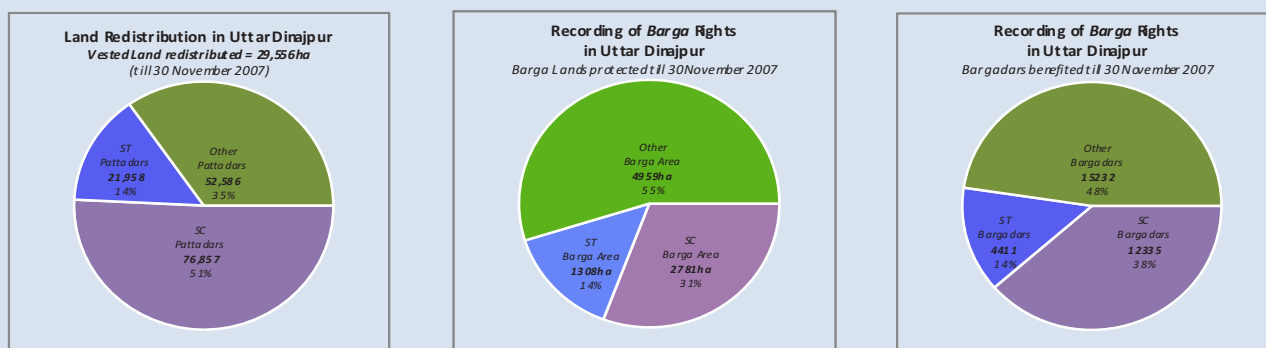
The analysis of land, labour and agricultural productivity in Uttar Dinajpur thus helps to pinpoint certain issues that are critical to livelihood concerns. Agriculture continues to absorb the overwhelming mass of rural workers in the district. However unlike the alluvial region where the returns from agricultural operations are also commensurate to high labour engagement, thus offering main work opportunities for a considerable part of the year, high labour engagement in agriculture in the terai blocks occurs because of the lack of economic alternatives. Chopra offers a notable instance where the advent of BLF tea factories caused an immediate switchover to small-grower tea plantations. While the switchover to tea in Chopra was mainly from horticultural crops like pineapples and also reflected other unfavourable land features such as topography, the subsequent spread of small-grower plantations southwards into Islampur and Goalpokhar-1 blocks indicates that seasonal crop-farming operations throughout Islampur SD can come under similar commercial pressure from perennial plantation crops. While making apparent economic sense to the landowners, these real costs of such switchovers need to be measured in terms of the reduced labour absorption capacity of plantation land and the largescale displacement of marginal farmers and landless agricultural workers that would result. The marginal quality of farmland in the terai is evident in the smaller proportionate extent of NCA and the spread of 228ha of forest tracts and 117ha of unculturable wasteland through Chopra and Islampur blocks. Unless major irrigation projects like the Tista Barrage Project [TBP] canals can create an agricultural turnaround similar to the one that has occurred with the introduction of the *boro* crop in the southern blocks of Uttar Dinajpur, livelihood situations in Islampur SD will remain subject to the seasonal swings that produce periodic outmigration outside the region.

### Land Distribution & Land Reforms

The process of institutional reforms through which power has devolved to primary, secondary and tertiary Panchayati Raj institutions in West Bengal was preceded by effective agrarian reforms that loosened the grip of rural elites over the local governance system, securing rightful representation for the small peasants and landless cultivators who actually tilled the land. The package of agrarian reforms implemented vigorously from 1978 onwards provided for strict implementation of ceiling regulations under the West Bengal Land Reforms Act [WBLRA] of 1955 coupled with the redistribution of ceiling-surplus vested lands to the landless,



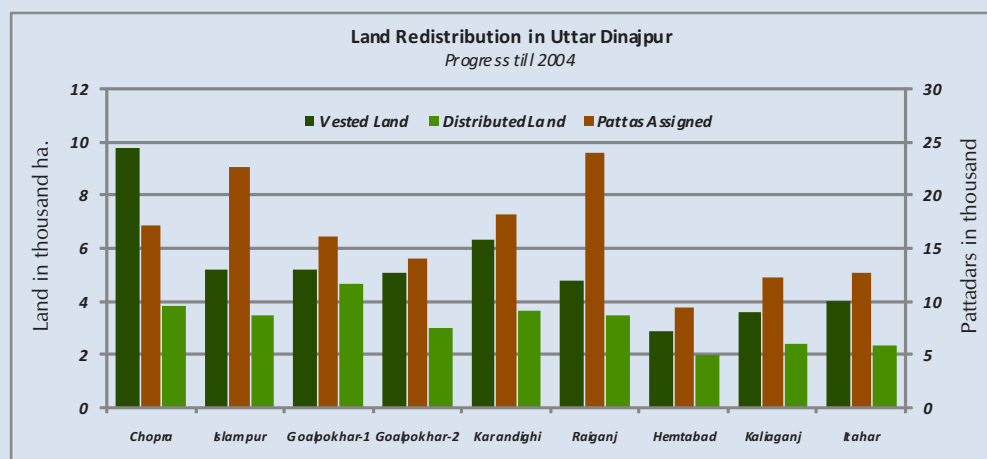
and for the recording of tenancy rights under *Operation Barga* in order to provide tenurial security to the *bargadars* or crop-sharing tenants as envisioned in chapter 3 of the WBLRA. Under the joint operation of WBLRA and the WB Acquisition of Homestead Land for Agricultural Labourers, Artisans & Fisherman Act of 1975, 1.51 lakh landless agricultural workers in Uttar Dinajpur had been granted *patta* titles to 0.30 lakh ha of homestead lands till November 2007 at an average *patta*-size of 0.2ha apiece. Over 0.32 lakh *bargas* had been registered till that date spanning a collective area of 0.09 lakh ha of *barga* land, and transforming as many landless cultivators who had previously been involved in informal crop-sharing agreements into legal tenants.



**Table: Regional Impact of Land Reforms in Uttar Dinajpur upto 2004**

CD Block	2001 Total Agricultural Labourers	2004 Total Bargadars	2004 Marginal Farmer House holds	2004 Small Farmer House holds	Total Vested Land [ha]	Vested Land Distributed [ha]	Total Pattas Assigned	Avg Patta per Assignee [ha]	Undistributed Vested Land [ha]
Chopra	20376	948	9000	7600	9784	3840	17213	0.22	5944
Islampur	32182	3946	15802	6773	5232	3523	22771	0.15	1709
Goalpokhar-1	42403	269	13865	2991	5211	4670	16234	0.29	541
Goalpokhar-2	38341	1606	4179	1992	5108	3015	14090	0.21	2093
Karandighi	52664	1486	17262	14898	6344	3679	18315	0.20	2665
Raiganj	66759	4916	24085	13105	4840	3511	23996	0.15	1329
Hemtabad	24192	3428	7376	1896	2902	2010	9438	0.21	892
Kaliaganj	37013	7671	14740	7440	3609	2427	12295	0.20	1182
Itahar	55029	7684	25525	12752	4027	2351	12793	0.18	1676
Uttar Dinajpur DT	368959	31954	131834	69447	47057	29026	147145	0.20	18031

Source: BAE&S, Uttar Dinajpur District Statistical Handbook, 2005



However, although land reforms were implemented simultaneously in all blocks of Uttar Dinajpur, their impact has varied by region. Having evolved under the Bihar administration before the transfer of territories to West Bengal, the revenue history of land settlements in the Islampur SD blocks differed from those made in the Raiganj SD blocks. Since the cultivator population was also thinner in Islampur SD, the land estates there had been larger in size, and the extent of land acquired under ceiling laws was also larger in the Islampur region. Thus of the 0.47 lakh ha of ceiling-surplus vested lands available for redistribution under the land reforms programme in Uttar Dinajpur district, 0.32 lakh ha (67%) was situated within the five Islampur SD blocks and Chopra alone accounted for over a fifth of the vested land in the district. Accordingly, the Islampur SD blocks also account for over three-fifths of the *pattas* assigned to landless cultivators in Uttar Dinajpur and the average size of the plots received by the beneficiaries has also been larger in all the Islampur SD blocks with the exception of Islampur. Over time, this has also encouraged new settlement in the Islampur blocks, as is borne out by the migration history of the region.

However, the extent of landlessness still remains high in Uttar Dinajpur, particularly in Goalpokhar-1, Goalpokhar-2, Karandighi, Raiganj and Itahar blocks where the number of agricultural labourers is also relatively high. Of the five blocks to the north, Goalpokhar-1 and Islampur are the only blocks where more than two-thirds of the ceiling-surplus land has already been redistributed, while in Raiganj SD, Itahar is the only block where more than a third of vested land has not been redistributed. In Chopra, the total extent of undistributed vested lands exceeds 60 percent of the vested area. The high extent of undistributed land in most Uttar Dinajpur blocks reveals the potential for new agricultural settlement, or alternatively the land that will be available for the future development of industrial estates and other non-farm based commercial ventures in the district.

Of the 1.41 lakh *pattadars* who had benefited directly from land redistribution in Uttar Dinajpur till November 2007, over half belonged to SC groups and another 14 percent belonged to the ST communities. Thus nearly 0.99 lakh (65%) beneficiaries belonged to SC and ST groups. Another 0.17 lakh SC and ST *bargadars* also benefited from the securing of *barga* rights under tenancy reforms, in addition to 0.15 lakh *bargadars* belonging to other community groups. However, the average size of the *barga* secured differed considerably between the respective communities, amounting to 0.23ha in the case of SC *bargadars* and 0.29ha in the case of ST *bargadars*, while among *bargadars* belonging to other communities, the average size of *barga* lands amounted to 0.33ha. While the SC and ST *bargadars* thus comprised more than half of the beneficiaries from tenancy reforms in Uttar Dinajpur, *bargadars* belonging to other communities comprised the major beneficiary group in terms of land coverage, with more than 54 percent of the *barga* lands secured under these reforms being tenanted by them. In Itahar and Raiganj blocks under Raiganj SD,

and in Karandighi, Goalpokhar-1, Goalpokhar-2 blocks under Islampur SD, currently landless agricultural workers outnumbered the combined number of land reform beneficiaries (i.e. *bargadars* and *pattadars*) in the ratio 2.3-2.7, giving indication that very high rates of landlessness still persist within these blocks. In Hemtabad and Kaliaganj, where landlessness was lower, the ratio of landless agricultural workers to land reforms beneficiaries improved to 1.9 and was lower still in Islampur (1.2) and Chopra (1.1) where landlessness is minimal. Among the blocks that show evidence of high landlessness, Raiganj and Karandighi offer better alternative livelihood opportunities, compared to Itahar, Goalpokhar-1 and Goalpokhar-2 where access to alternative livelihoods is still very limited.

**Table: Regional Landholding Patterns in Uttar Dinajpur  
Agricultural Census, 2001**

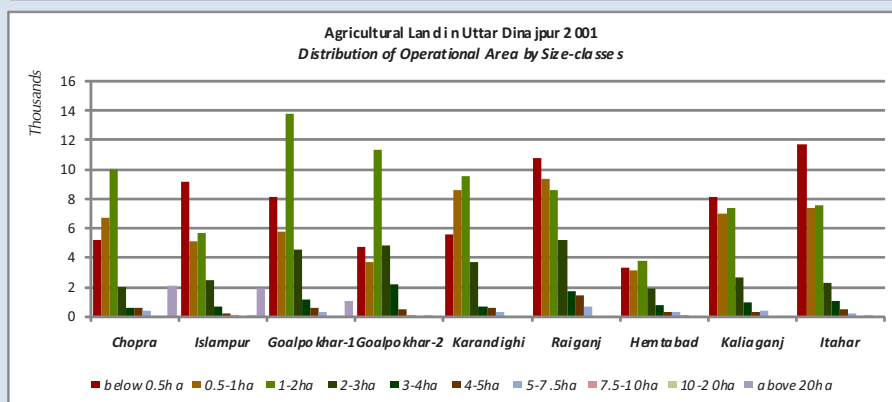
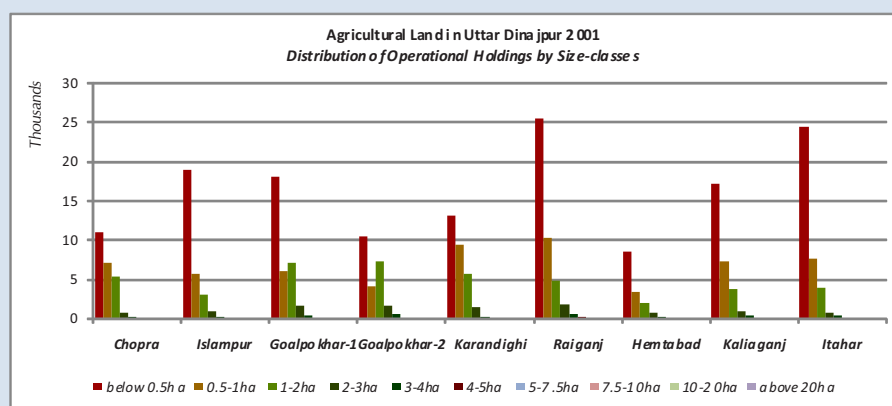
CD Block	Marginal Holdings upto 1ha	Small Holdings 1-2ha	Semi-Medium Holdings 2-4ha	Medium Holdings 4-10ha	Large Holdings > 10ha	Total Holdings	Marginal Area upto 1ha	Small Area 1-2ha	Semi-Medium Area 2-4ha	Medium Area 4-10ha	Large Area > 10ha	Total Area
Chopra	18022	5241	871	195	29	24358	11944	10014	2618	1014	2089	27679
Islampur	24695	2965	1065	70	25	28820	14266	5679	3132	332	1933	25341
Goalpokhar-1	24210	7085	1925	190	10	33420	13988	13868	5713	989	995	35553
Goalpokhar-2	14505	7310	2260	140	5	24220	8432	11319	6980	592	71	27394
Karandighi	22482	5622	1607	176	0	29887	14188	9534	4342	852	0	28915
Raiganj	35772	4860	2237	407	0	43276	20112	8651	6851	1985	0	37599
Hemtabad	11750	1970	860	140	0	14720	6444	3806	2562	744	0	13556
Kaliaganj	24495	3805	1220	130	0	29650	15139	7413	3634	699	0	26884
Itahar	31975	3895	1065	165	5	37105	19127	7544	3333	805	53	30863
<b>Uttar Dinajpur</b>	<b>207906</b>	<b>42753</b>	<b>13110</b>	<b>1613</b>	<b>74</b>	<b>265456</b>	<b>123640</b>	<b>77828</b>	<b>39165</b>	<b>8012</b>	<b>5141</b>	<b>253784</b>

CD Block	% Marginal Holdings upto 1ha	% Small Holdings 1-2ha	% Semi-Medium Holdings 2-4ha	% Medium Holdings 4-10ha	% Large Holdings > 10ha	Total Holdings upto	% Marginal Area upto 1ha	% Small Area 1-2ha	% Semi-Medium Area 2-4ha	% Medium Area 4-10ha	% Large Area > 10ha	Total Area
Chopra	74.0	21.5	3.6	0.8	0.1	24358	43.2	36.2	9.5	3.7	7.5	27679
Islampur	85.7	10.3	3.7	0.2	0.1	28820	56.3	22.4	12.4	1.3	7.6	25341
Goalpokhar-1	72.4	21.2	5.8	0.6	0.0	33420	39.3	39.0	16.1	2.8	2.8	35553
Goalpokhar-2	59.9	30.2	9.3	0.6	0.0	24220	30.8	41.3	25.5	2.2	0.3	27394
Karandighi	75.2	18.8	5.4	0.6	0.0	29887	49.1	33.0	15.0	2.9	0.0	28915
Raiganj	82.7	11.2	5.2	0.9	0.0	43276	53.5	23.0	18.2	5.3	0.0	37599
Hemtabad	79.8	13.4	5.8	1.0	0.0	14720	47.5	28.1	18.9	5.5	0.0	13556
Kaliaganj	82.6	12.8	4.1	0.4	0.0	29650	56.3	27.6	13.5	2.6	0.0	26884
Itahar	86.2	10.5	2.9	0.4	0.0	37105	62.0	24.4	10.8	2.6	0.2	30863
<b>Uttar Dinajpur</b>	<b>78.3</b>	<b>16.1</b>	<b>4.9</b>	<b>0.6</b>	<b>0.0</b>		<b>48.7</b>	<b>30.7</b>	<b>15.4</b>	<b>3.2</b>	<b>2.0</b>	

Source: Agricultural Census, 2001

Deeper understanding of the problems resulting from regional land inequalities within Uttar Dinajpur can be gained from consideration of the regional distributions of operational holdings between different holding size-classes according to the Agricultural Census 2001. Since by definition, operational holdings represent land actually cultivated, thus taking the combined size of ownership holdings as well as inward and outward leasing of agricultural land into account, the variable extent of land pressure across the district is revealed by the analysis.

Of the 2.66 lakh operational holdings in Uttar Dinajpur covering a total land area of 2.54 lakh ha, nearly 95 percent comprised either marginal or small holdings below 2ha in size. Thus the area per operational holding for the district as a whole amounted to 0.96ha on an average. However, although semi-medium, medium and large holdings above the size of 2ha comprised only 5.4 percent of the total operational holdings, these collectively accounted for over a fifth of the total land under agricultural holdings in the district. With 47 percent of the total operational holdings and 43 percent of the total operated area, the four blocks under Raiganj SD accounted for 50 percent of the marginal holdings and 49 percent of the total area under marginal holdings in Uttar Dinajpur. Thus the average size per operational holding in Raiganj SD amounted to 0.87ha, against 1.03ha in Islampur block. Within Raiganj SD, land pressures were highest in Itahar block with over 86 percent of its operational holdings and 62 percent of its operated area being held in the form of marginal holdings. The size of each operational holding in Itahar block thus amounted to 0.83ha on an average. In Islampur SD, land pressure was highest in Islampur block where marginal holdings comprised 86 percent of the total operational holdings and 56 percent of the total operational area. The average extent of each operational holding in Islampur block thus amounted to 0.88ha. In marked contrast, Goalpokhar-2 with an average holding size of 1.13ha had less than 60 percent of its operational holdings and only 31 percent of its operational area under marginal holdings, while semi-medium holdings between 2-4ha in size comprised over 9 percent of the total operational holdings and nearly 26 percent of the operational area in the block. Goalpokhar-2 accordingly had the most favourable land distribution in Uttar Dinajpur district, while Itahar had the least favourable distribution of agricultural land.

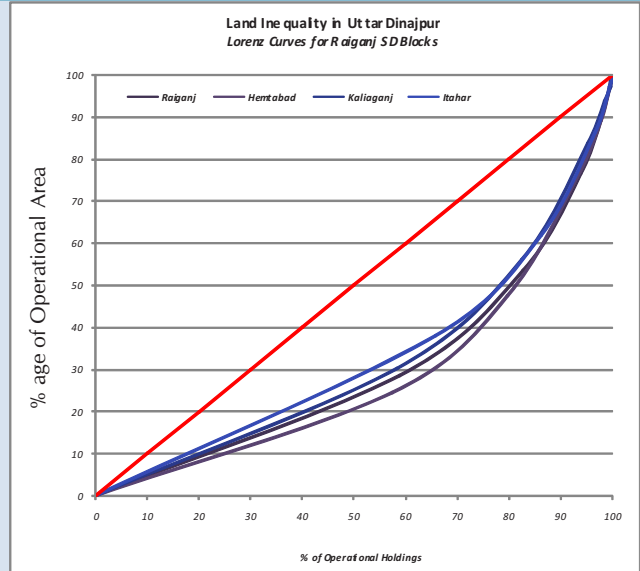
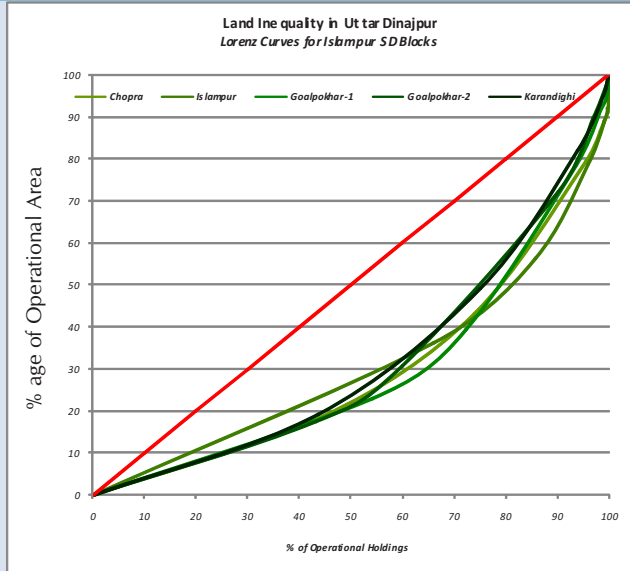


The degree of current land inequality in different blocks of Uttar Dinajpur can be measured visually through Lorenz curves which plot the cumulative percentage of operational area against the cumulative percentage of landholdings falling in different size-classes for the nine blocks in the district. Since the diagonal or 45° line in each of the succeeding graphs represents the uniform or equiproportionate distribution of the land area by successive operational landholding classes, the actual extent of land inequality that prevails in each block may be assessed from the degree of deviation of the Lorenz curve for operational landholdings in each block from the 45° line. Thus, the greater the deviation, the higher the extent of land inequality in the concerned block. Alternatively, the degree of land inequalities in the Uttar Dinajpur blocks can be measured by means of Gini coefficients which are calculated on the basis of the area between the Lorenz curve and the 45° diagonal. Since the Gini coefficient for the equiproportionate land distribution given by the 45° line would be equal to 0, higher calculated values for Gini coefficients for the different Uttar Dinajpur blocks indicate higher degrees of inequality in the land distributions for those blocks. As seen in the associated table, the Gini coefficients for operational land distributions in the Uttar Dinajpur blocks are highest in Itahar (0.652) and lowest in Hemtabad (0.572), both located in Raiganj sub-division.

**Table: Land Inequalities in Uttar Dinajpur  
Agricultural Census, 2001**

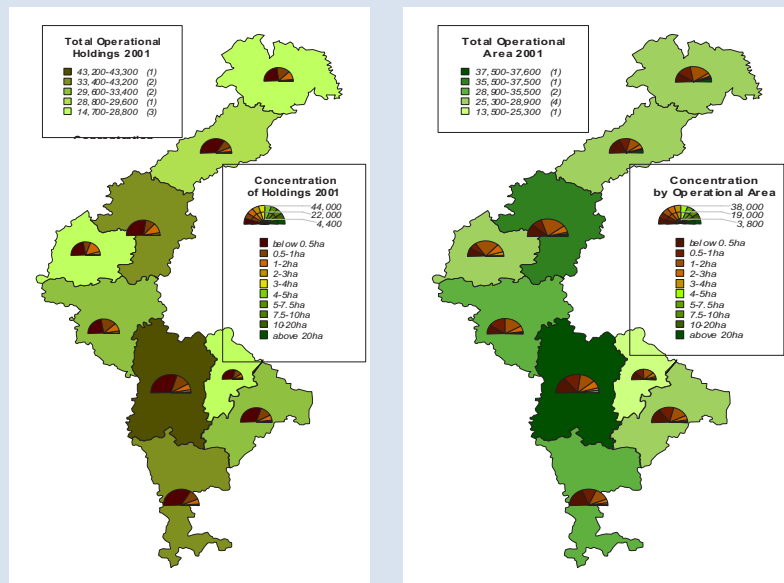
CD Block	Total Operational Holdings	Holdings below 0.5ha	Holdings 0.5-1ha	Holdings 1-2ha	Holdings 2-3ha	Holdings 3-4ha	Holdings 4-5ha	Holdings 5-7.5ha	Holdings 7.5-10ha	Holdings 10-20 ha	Holdings above 20ha	
Chopra	24358	10968	7054	5241	716	155	126	63	6	0	29	
Islampur	28820	19050	5645	2965	875	190	50	15	5	5	20	
Goalpokhar-1	33420	18100	6110	7085	1605	320	125	55	10	0	10	
Goalpokhar-2	24220	10490	4015	7310	1675	585	125	15	0	5	0	
Karandighi	29887	13102	9380	5622	1416	191	123	53	0	0	0	
Raiganj	43276	25480	10292	4860	1777	460	307	100	0	0	0	
Hemtabad	14720	8445	3305	1970	670	190	70	55	15	0	0	
Kaliaganj	29650	17290	7205	3805	935	285	65	60	5	0	0	
Itahar	37105	24415	7560	3895	795	270	120	35	10	5	0	
<b>Uttar Dinajpur</b>	<b>265456</b>	<b>147340</b>	<b>60566</b>	<b>42753</b>	<b>10464</b>	<b>2646</b>	<b>1111</b>	<b>451</b>	<b>51</b>	<b>15</b>	<b>59</b>	
CD Block	Total Operational Area [ha]	Area below 0.5ha	Area 0.5-1ha	Area 1-2ha	Area 2-3ha	Area 3-4ha	Area 4-5ha	Area 5-7.5ha	Area 7.5-10ha	Area 10-20 ha	Area above 20ha	Gini Coefficients
Chopra	24358	10968	7054	5241	716	155	126	63	6	0	29	
Chopra	27679	5237	6707	10014	2017	601	591	377	46	0	2089	0.603
Islampur	25341	9139	5127	5679	2488	644	210	81	41	61	1872	0.610
Goalpokhar-1	35553	8172	5816	13868	4587	1126	587	315	87	0	995	0.622
Goalpokhar-2	27394	4756	3676	11319	4830	2150	505	87	0	71	0	0.626
Karandighi	28915	5572	8616	9534	3674	668	544	308	0	0	0	0.637
Raiganj	37599	10764	9348	8651	5182	1669	1374	611	0	0	0	0.584
Hemtabad	13556	3319	3125	3806	1850	712	308	313	123	0	0	0.572
Kaliaganj	26884	8176	6963	7413	2653	981	296	363	40	0	0	0.624
Itahar	30863	11708	7419	7544	2307	1026	504	215	86	53	0	0.652
<b>Uttar Dinajpur</b>	<b>253784</b>	<b>66843</b>	<b>56797</b>	<b>77828</b>	<b>29588</b>	<b>9577</b>	<b>4919</b>	<b>2670</b>	<b>423</b>	<b>185</b>	<b>4956</b>	

Source: Agricultural Census, 2001



As is evident from the table, land inequalities are generally wider within the Islampur SD blocks where the Gini coefficients invariably surpass 0.60, reaching a high of 0.637 in Karandighi. With the spread of small-grower tea plantations, Chopra, Islampur and also Goalpokhar-1 to a lesser extent have several large land estates exceeding 20ha in size. With a Gini coefficient of 0.603, Chopra nevertheless has the lowest degree of land inequality within Islampur SD because of the lower degree of land pressure. Since the five Islampur SD blocks collectively hold 53 percent of the total operational holdings and 57 percent of the total operational area in Uttar Dinajpur, these existing land inequalities are multiplied among a larger number of cultivators. In the Raiganj SD blocks in contrast, land inequalities are high in Kaliaganj and Itahar (Gini coefficients > 0.62) but are lower in Raiganj and Hemtabad (Gini coefficients < 0.59). along with such land inequalities, land fragmentation has also been higher in Itahar and Karandighi. Thus while both blocks have a disproportionately large number of operational holdings in the small and marginal size-classes and smaller proportions of holdings in the higher size-classes, the distribution of operational land by area is weighted much more strongly towards the median size-classes and away from marginal landholders, accounting for the high Gini coefficients that prevail within both blocks.

## MAP: Regional Landholding Inequalities in Uttar Dinajpur



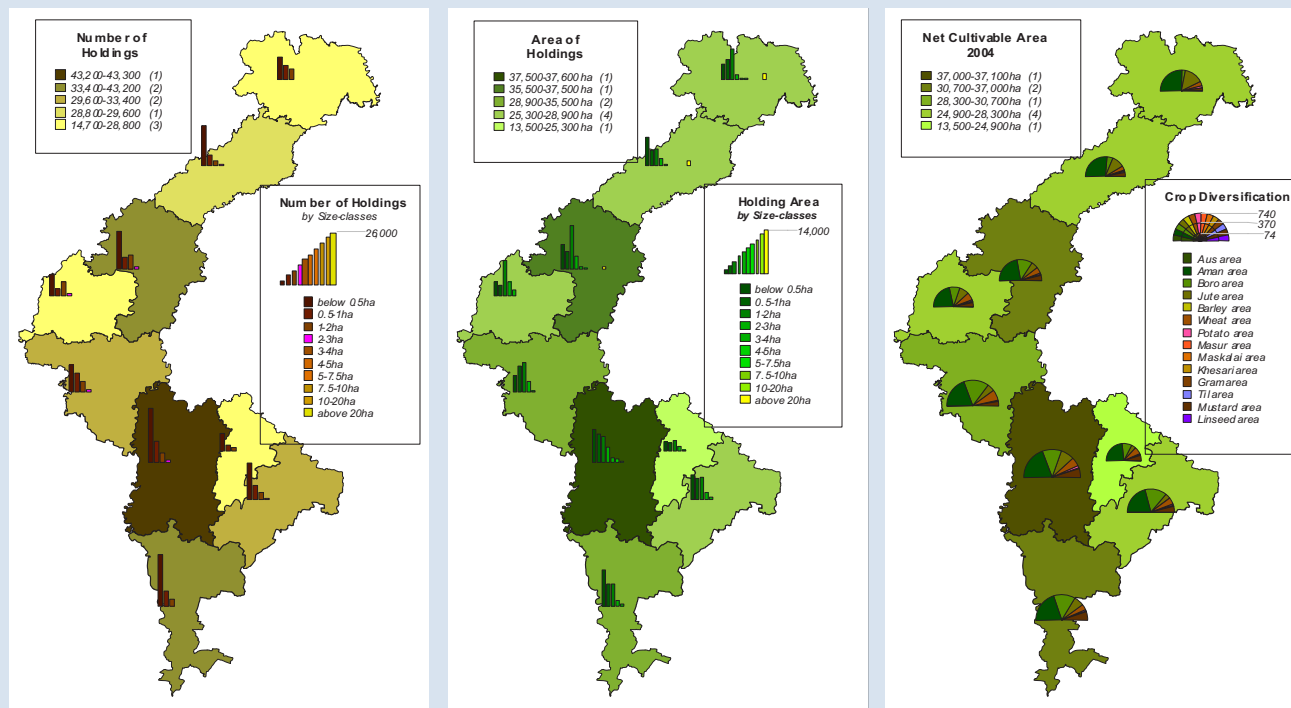
From the associated regional maps, Raiganj block evidently accounts for the largest number of operational holdings as well as the largest operational area in Uttar Dinajpur, and is followed by Goalpokhar-1 block. However, the average size per operational holding is much lower in Raiganj at 0.87ha than in Goalpokhar-1 block where each operational holding measures 1.06ha on the average, showing that land pressures in Raiganj considerably exceed those in Goalpokhar-1. In Itahar where the total number of holdings is also relatively high, the extent of land available for cultivation is much lower than in Raiganj. Because of heavy concentration of small and marginal holdings, the average size per operational holding in Itahar thus falls to 0.83ha. With average holding sizes exceeding 0.9ha, Hemtabad and Kaliaganj in contrast are in a relatively favourable position. Within Islampur SD, Karandighi and Islampur blocks experience more crowding on land, with average holding sizes of 0.97ha and 0.88ha respectively. In the other Islampur SD blocks however, average holding sizes invariably exceed 1ha.

### Landholding and Farming Operations in Uttar Dinajpur

With an NCA of over 2.47 lakh ha. in 2001, over 81 percent of the land area of Uttar Dinajpur comprised cultivable land. Nevertheless, between 1991-2001, there had been a decrease of around 2428ha in net cultivable land. All blocks in Raiganj SD thus reported a fall in NCA, with Itahar reporting the highest decline. In Islampur SD, on the other hand, declines in NCA were reported in Chopra and Goalpokhar-2, while Islampur, Goalpokhar-1 and Karandighi reported increases in NCA. Since the irrigation intensity in Raiganj SD improved substantially between 1991-2001, the decline in NCA in the Raiganj SD blocks was indirectly compensated by increases in agricultural productivity. However since the Islampur SD blocks with the exception of Karandighi generally reported lower irrigation coverage compared to the Raiganj SD blocks, the decline in NCA in Chopra and Goalpokhar-2 would have had an adverse impact on agricultural production. Improved irrigation access in recent years in the principal agricultural blocks stretching from Karandighi to Itahar have considerably improved agricultural productivity in Uttar Dinajpur, because of the addition of the *boro* rice crop. The district is still characterised by relatively low use of other modern agricultural inputs, and ranked just after Murshidabad as second lowest user of chemical fertilisers in the state in 2004-05. The extent of this technology gap may be gauged from the fact that the application of fertilisers in Uttar Dinajpur amounted to 80.9 kg/ha, against the average of 132.5 kg/ha for West Bengal as a whole.

Expansion of farming operations in most Islampur SD blocks is also constrained by the high proportion of culturable wastelands which have not been brought under current cultivation because of unsuitable agroclimatic situations as well as the dearth of irrigation. For the same reasons, a relatively large area of land spanning Chopra, Islampur and Goalpokhar-1 blocks has been committed to non-agricultural uses under horticultural and tea plantations. Since the thrust of public investment on irrigation since 1975 has been focused towards the long-gestation Tista Project, intensification of cultivation and improvements in agricultural productivity have mainly been recorded in the blocks where private investment on irrigation has been relatively high. Sharp differentiations in the profitability of agricultural operations have therefore emerged between the principal rice-growing blocks and the other blocks of Uttar Dinajpur.

MAP: Land Distribution & Agricultural Diversification in Uttar Dinajpur



Aman and boro rice now constitute the major agricultural crops of Uttar Dinajpur. Aman rice is generally grown on lowlands in rainfed conditions during the *kharif* season between the months of July-November, and thus accounts for the largest cultivated area in the district. Boro rice is grown in lowland areas during the dry months between November-April and its cultivation thus depends entirely on the availability of irrigation and other agricultural inputs. Hence the area presently under boro in Uttar Dinajpur is not as vast as the area under aman cultivation. Aus rice which used to be grown in upland areas in Uttar Dinajpur between the months of March-July was planted *in situ* without irrigation or transplantation. The area under aus thus depended on the regional distribution of upland soils with good moisture retaining capacities. With the growing popularity of boro rice and other spring crops, the total aus area in Uttar Dinajpur has gradually declined. However, the traditional fine and aromatic rice varieties that Uttar Dinajpur is well known for are either grown in the aus or aman season. Boro rice, in comparison, mostly comprises coarse-grained HYV varieties of hybrid rice, but has the advantage of very high yields under fully irrigated conditions. It is therefore grown as a major cash-crop, while the aus and aman seasons produce better-quality rice that meets subsistence needs along with a smaller margin for market sale.

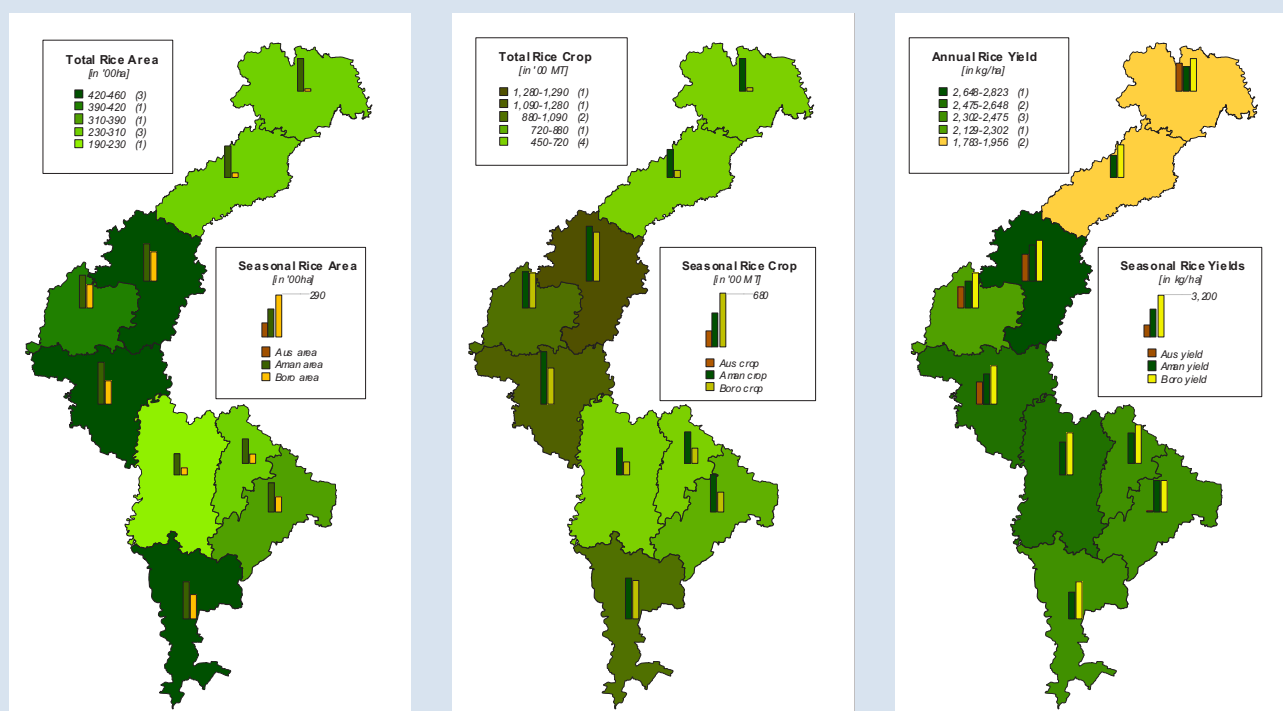
With a larger cultivable area, Islampur SD accounts for the bulk of rainfed aman rice production in Uttar Dinajpur district. However, because of the inadequacy of irrigation in many parts of Islampur SD, the bulk of the boro rice crop is produced by Raiganj SD, while the Islampur SD blocks produce a more diversified mix of crops which includes traditional *rabi* and pre-*kharif* crops like oilseeds, pulses and jute. Among the principal agricultural blocks, Karandighi, Itahar and Kaliaganj are highly specialised towards the production of aman and boro rice, while Goalpokhar-1, Goalpokhar-2, Raiganj and Hemtabad have higher intensities of multiple cropping. In the upland areas of Chopra and Islampur blocks, there has been a largescale switch to plantation crops, the overall intensity of aus and aman rice production has declined considerably in recent years. Nevertheless, the traditional rice economy of Uttar Dinajpur has always been a major provider of rural employment. Traditional small-grower production of rice is based largely on the use of family labour. With relatively high aman yields in virtually all the Uttar Dinajpur blocks, the major portion of the aman rice output is produced on small and marginal operational holdings, with minimal need for



hired labour except during transplantation and harvesting operations. *Boro* rice which is produced as a cashcrop requires much larger inputs of hired labour, in addition to technological inputs like fertilisers and irrigation. Thus the gradual spread of *boro* cultivation across many parts of the district has generated a considerable amount of new employment in Uttar Dinajpur’s rural areas. High absorption of hired labour inputs during the *boro* season is also aided by the relatively low agricultural wage rates that still prevail in the district, because of continuous labour inflows into rural Uttar Dinajpur as a result of intrastate and crossborder migration.

The broad regional features of the rice economy of Uttar Dinajpur are revealed by the associated regional maps. Goalpokhar-1, Karandighi and Itahar account for a substantial share of the total area under rice cultivation in Uttar Dinajpur, because of the high incidence of *aman* and *boro* production in these blocks. While Goalpokhar-2 and Kaliaganj are a step behind, Raiganj and Hemtabad have relatively small areas under *aman* and *boro* rice because of the high degree of land fragmentation in these blocks and their more diversified agricultural profiles. *Boro* cultivation only has a token presence in Chopra and Islampur, where that bulk of the rice area comprises the *aman* crop. The bulk of the annual rice crop in Uttar Dinajpur is produced in Goalpokhar-1, Goalpokhar-2, Karandighi and Itahar, where both *aman* and *boro* rice are produced on a major scale. In Raiganj, Hemtabad and Kaliaganj, the scale of *boro* rice production is still relatively small compared to *aman* production, while the total rice output in Chopra and Islampur principally comprises *aman* rice. Nevertheless, despite the wideranging variations in *boro* area and production across Uttar Dinajpur district, *boro* yields are substantially high wherever *boro* rice is grown, surpassing 3MT per ha in Karandighi and Hemtabad. Unequal access to irrigation in the Uttar Dinajpur blocks thus constitutes a major impediment to the realisation of more uniform *boro* rice yields across the district.

MAP: Rice Economy in Uttar Dinajpur, 2004



MAP: (a) Aus, Aman &amp; Boro Paddy Area

(b) Aus, Aman &amp; Boro Paddy Production

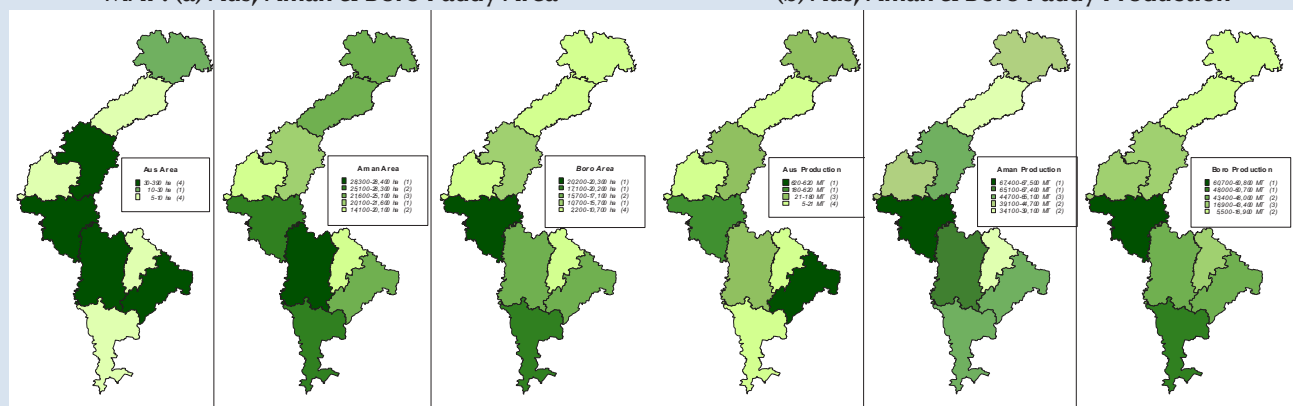


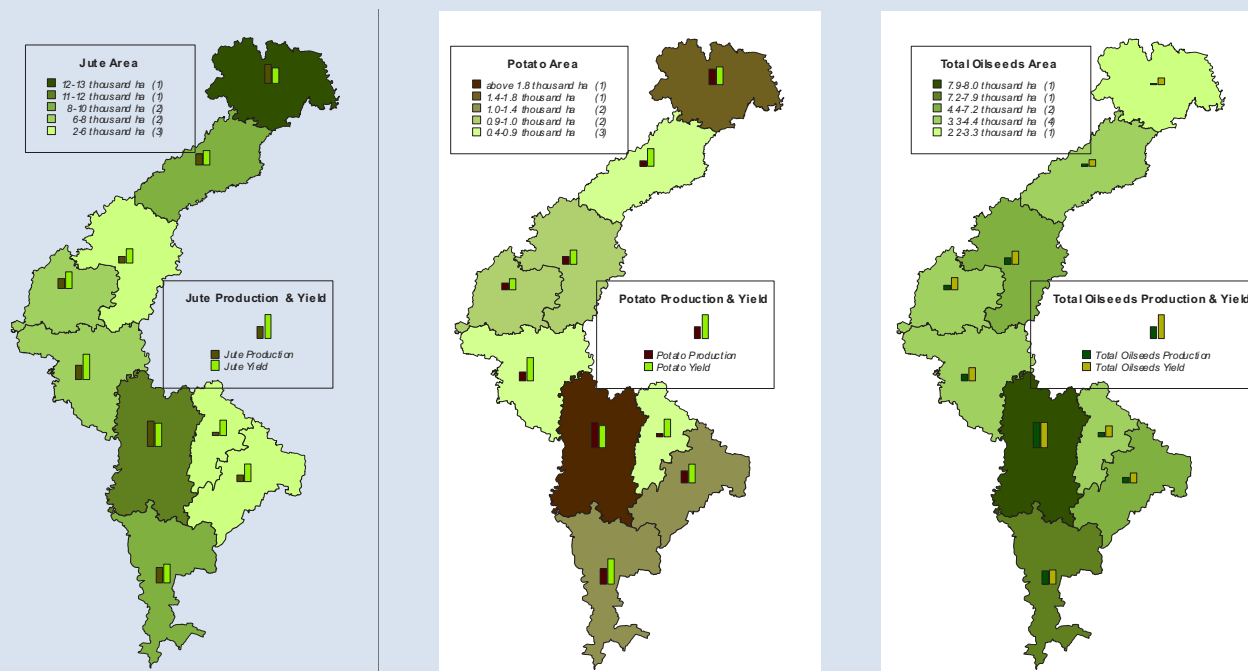
Table: Regional Rice Production in Uttar Dinajpur, 2004

CD Block	Total NCA [ha]	Total GCA [ha]	Aus Area [ha]	Aman Area [ha]	Aus Boro Area [ha]	Output [MT]	Aman Output [MT]	Total Boro Output [MT]	Total Rice Area [ha]	Aus Rice Output [MT]	Yield [kg/ha]	Aman Yield [kg/ha]	Total Boro Yield [kg/ha]	Rice Yield [kg/ha]
Chopra	26711	45002	10	22000	2250	21	40380	5560	24260	45961	1521	1835	2474	1895
Islampur	24910	44431	5	21620	4010	5	35850	9870	25635	45725	1973	1658	2444	1784
Goalpokhar-1	33102	57246	150	20140	10720	22	46820	25430	31010	72272	1466	2324	2371	2331
Goalpokhar-2	26879	52384	5	17120	6760	5	39170	19470	23885	58645	1475	2287	2882	2455
Karandighi	28356	62150	90	25180	20210	180	67480	60730	45480	128390	1923	2680	3004	2823
Raiganj	37027	77952	30	28310	15700	50	65130	44790	44040	109970	1633	2301	2854	2497
Hemtabad	13513	28760	5	14190	5420	5	34150	16990	19615	51145	1625	2407	3133	2607
Kaliaganj	26616	54331	390	22480	16370	620	44790	43410	39240	88820	1591	1992	2652	2264
Itahar	30739	56857	5	25300	17150	5	50900	48010	42455	98915	2110	2012	2799	2330
<b>U Dinajpur DT</b>	<b>247853</b>	<b>479113</b>	<b>690</b>	<b>196340</b>	<b>98590</b>	<b>913</b>	<b>424670</b>	<b>274260</b>	<b>295620</b>	<b>699843</b>	<b>1323</b>	<b>2163</b>	<b>2782</b>	<b>2367</b>

Source: BAE&S, Uttar Dinajpur District Statistical Handbook, 2005

Aus rice is now restricted primarily to Chopra and to uplands in the central rice-growing blocks of Goalpokhar-1, Karandighi, Raiganj and Kaliaganj, with an overall growing area of less than 700ha and aggregate production of just over 900MT. While rainfed aman rice, in contrast, is grown on a much wider scale across an aggregate area of 1.96 lakh ha spanning the entire district, boro rice cultivation is more localised in the central and southern blocks of Karandighi, Itahar, Kaliaganj, Raiganj and Goalpokhar-1. As can be seen from the associated table, these regional rice-growing patterns coincide closely with the irrigation intensity patterns in Uttar Dinajpur blocks and consequently with the differentials between GCA and NCA in the respective blocks. Total rice hectares thus exceed 40 thousand ha in Karandighi, Raiganj and Itahar, and surpass 30 thousand ha in Kaliaganj and Goalpokhar-1. Nevertheless, the main aman and boro outputs are derived from the central and southern blocks of the district. In Karandighi and Raiganj, gross rice outputs surpass 1 lakh MT annually, and range between 0.72-0.99 lakh ha in Goalpokhar-1, Kaliaganj and Itahar. Through the remainder of the district, gross rice outputs fall below 0.52 lakh ha annually, mainly because of the limited availability of irrigation and the consequently restricted scale of boro operations in the concerned blocks.

## MAP: Major Economic Crops in Uttar Dinajpur, 2004



The other major economic crops grown in Uttar Dinajpur comprise jute, potatoes and oilseeds. Among these, jute and oilseeds are traditional *rabi* and *pre-kharif* crops which are sown over areas ranging from 2-13 thousand ha in different blocks, while winter potatoes are a comparatively recent introduction and are grown over in a restricted area ranging from 0.4-1.8 thousand ha in selected blocks of the district. The main areas where jute is cultivated in Uttar Dinajpur include Chopra, Islampur, Raiganj and Itahar. Although both *tossa* and white jute (*sun-pat*) varieties of jute are cultivated, the distribution of growing areas differs between the two varieties. *Sun-pat* or Bengal white jute (*Corchorus capsularis*) is grown primarily in the Islampur SD blocks, with Chopra, Islampur, Goalpokhar-2 and Karandighi accounting for the bulk of the production. Reddish-gold *tossa* jute (*Corchorus olitorius*) is grown primarily within Raiganj SD, with Raiganj and Itahar as the principal producing blocks. Besides being an important commercial fibre-crop, jute is also an important utility crop in the district, yielding fodder, fuel as well as fencing material for the use of rural households. Thus despite frequent oscillation in fibre prices, the area under jute has remained relatively steady in Uttar Dinajpur.

Although the yield rates for potatoes exceed 17 thousand kg/ha through most blocks in Uttar Dinajpur with the exception of Goalpokhar-1 and Goalpokhar-2, potatoes are only cultivated on a wide scale in Raiganj and Chopra. Together with these two major producing blocks, Kaliaganj and Itahar currently account for 60 percent of the potato hectareage and over two-thirds of the potato output in Uttar Dinajpur. Commercial cultivation of potatoes is highly input-intensive and is also subject to market risks, which have been major impediments to the expansion of potato cultivation in Uttar Dinajpur. Oilseeds are a traditional winter crop in the district and are grown on a wider scale over a cumulative area of 0.42 lakh ha. The principal growing areas include Raiganj, Kaliaganj and Itahar within Raiganj SD, and Goalpokhar-1 in Islampur SD. Islampur, Goalpokhar-2 and Karandighi blocks also contribute fairly significantly to total oilseeds production in Uttar Dinajpur. The largescale shift to *boro* cultivation in Uttar Dinajpur has been made at the cost of traditional dry crops like pulses and oilseeds. The drier areas of the district that border the *terai* were originally dry farming areas in the recent past. The switchover to less agroclimatically suitable crops in this water-scarce region has in fact reduced the total area under pulses and oilseeds, both of which are now in deficit in the district.

Table: Yield Rates of Dominant Agricultural Crops in Uttar Dinajpur, 2004

CD Block	Aus Rice [kg /ha]	Aman Rice [kg /ha]	Boro Rice [kg /ha]	Total Rice [kg /ha]	Wheat [kg /ha]	Masur [kg /ha]	Mash kalai [kg /ha]	Gram [kg/ ha]	Jute [kg/ ha]	Potato [kg/ ha]	Til [kg/ ha]	Mustard [kg/ ha]	Lins eed [kg/ ha]
Chopra	1521	1835	2474	1895	1269	417	458	-	1566	18145	240	429	134
Islampur	1973	1658	2444	1784	1341	417	28	894	1449	17789	392	413	141
Goalpokhar-1	1466	2324	2371	2331	1800	402	262	894	1534	14812	362	795	323
Goalpokhar-2	1475	2287	2882	2456	1908	832	322	894	1673	11704	390	749	233
Karandighi	1923	2680	3004	2823	2622	414	452	-	2558	22791	381	753	241
Raiganj	1633	2301	2854	2497	2414	529	336	894	2323	22353	381	1340	458
Hemtabad	1625	2407	3133	2608	1874	366	339	894	1576	17706	-	637	303
Kaliaganj	1591	1992	2652	2264	1915	401	386	894	1774	18982	381	577	248
Itahar	2110	2012	2799	2330	1724	363	409	894	1955	24865	-	763	510
<b>Uttar Dinajpur DT</b>	<b>1642</b>	<b>2163</b>	<b>2782</b>	<b>2368</b>	<b>2019</b>	<b>452</b>	<b>360</b>	<b>-</b>	<b>1849</b>	<b>19163</b>	<b>379</b>	<b>809</b>	<b>220</b>

Source: BAE&S, Uttar Dinajpur District Statistical Handbook, 2005

### Impact of Irrigation in Uttar Dinajpur

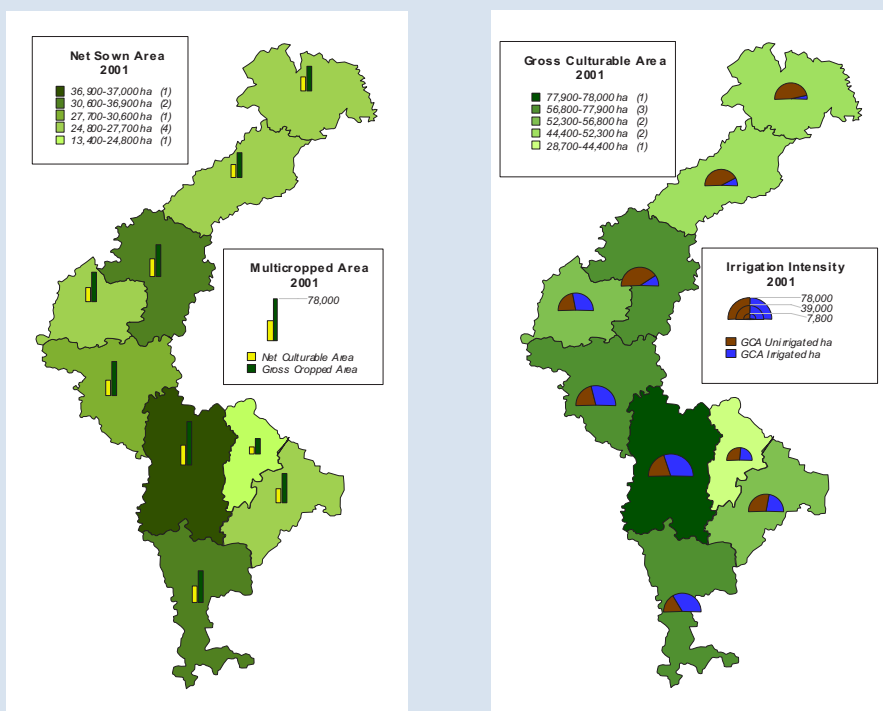
The new cropping patterns which have evolved in Uttar Dinajpur in recent years strongly reflect agricultural changes induced by the extension of irrigation. The proportion of cultivable land having access to some form of irrigation had thus risen sharply from less than a fifth of NCA in 1993-94 at the time of the 2<sup>nd</sup> Minor Irrigation Census, to more than a third of NCA by the time the 3<sup>rd</sup> Minor Irrigation Census was conducted in 2000-01. The bulk of this increased irrigation coverage was made possible by the spread of groundwater based irrigation technology within the district, as a consequence of which the proportion of cultivable land irrigated by groundwater schemes has almost doubled from 17.6 percent of NCA in 1993-94 to 31.6 percent in 2000-01. Thus at the time of the 3<sup>rd</sup> MI Census, when the NCA in Uttar Dinajpur amounted to 2.22 lakh ha and the net sown area [NSA] to 1.59 lakh ha, the net irrigated area [NIA] extended over 0.73 lakh ha from which 0.69 lakh ha were irrigated by groundwater schemes. In comparison, the irrigation coverage provided by major and medium irrigation schemes in the district amounted to just 361 ha, while surface irrigation schemes covered 2746ha. Groundwater schemes thus provided nearly 96 percent of the irrigation coverage in the district, and constituted the dominant mode of irrigation in Uttar Dinajpur.

By 2003-04, there were 10531 surface irrigation installations in Uttar Dinajpur, comprising 114 on-river surface lift schemes and 10417 storage-cum-lift irrigation tanks. Half of the larger surface lifts were group schemes that had been set up either by the Government or by the panchayats and private farmer-groups, while nearly as many belonged to individual farmers who also controlled most of the smaller storage-cum-lift irrigation tanks. Most storage schemes however served limited culturable areas of upto 1ha, except for those set up on the natural *beels* and oxbows of the Mahananda river system in Chopra and Islampur blocks which served larger culturable areas averaging 37.5ha and 8ha respectively. While the combined irrigation potential created by surface storage and lift schemes amounted to 11132ha, this represented just over 10 percent of total irrigation coverage in Uttar Dinajpur.

The bulk of the irrigation coverage was provided therefore by groundwater schemes based on high-discharge, medium-discharge and low-discharge deep tubewell [DTW] technologies deployed at 249 locations under government patronage, and more than 62 thousand shallow tubewell [STW] installations in both the private and government sectors.

Despite these undoubtedly strong strides made by irrigation in Uttar Dinajpur district, the impact on regional agriculture has been uneven and has been felt mainly in the intensively cultivated blocks stretching from Goalpokhar-2 to Itahar. This is evident in the accompanying regional maps which reveal the strong association between current cropping intensities and the net sown area [NSA] in the principal agricultural blocks of the district. Recording the largest NSA of 0.37 lakh ha and a GCA of nearly 0.78 lakh ha, Raiganj block has the largest extent of multicropped land with an overall cropping intensity of 211 percent, representing the proportion by which the annual cropped area or GCA exceeds NCA. All agricultural land in Raiganj is double-cropped, in addition to which a segment yields three crops over the duration of the year. Goalpokhar-1 has an NSA of 0.33 lakh ha and therefore closely resembles Raiganj with respect to the area under cultivation, but has a much lower GCA of 0.57 lakh ha and a cropping intensity of 173 percent. Itahar follows behind Goalpokhar-1 with an NSA of 0.31 lakh ha, but still has a GCA of 0.57 lakh ha because of its higher cropping intensity of 185 percent. Karandighi has the fourth largest NSA of 0.28 lakh ha but stands second next to Raiganj in terms of its GCA of 0.78 lakh ha, recording the highest cropping intensity of 219 percent in Uttar Dinajpur. Kaliaganj and Goalpokhar-2 have a roughly similar NSA of 0.26-0.27 lakh hectare respectively. Kaliaganj, however, has a larger GCA of 0.54 lakh ha and a cropping intensity of 204 percent, while Goalpokhar-2 has a GCA of 0.52 lakh ha with a lower cropping intensity of 195 percent. Despite its compact size of less than 192 sq.km and hence its restricted NCA of 0.14 lakh ha, Hemtabad is nevertheless able to record a GCA of 0.29 lakh ha because of its very high cropping intensity of 213 percent. In contrast, Islampur and Chopra, which are large in terms of overall block-size and have NSAs of 0.25-0.27 lakh ha, record GCAs of 0.44-0.45 percent because of the lower spread of irrigation. Islampur with a cropping intensity of 178 percent is ahead of Goalpokhar-1, while Chopra has the lowest cropping intensity of 168 percent in Uttar Dinajpur.

**MAP: Regional Impact of Irrigation in Uttar Dinajpur**



Such differences in the extent of multicropping between the Uttar Dinajpur blocks strongly reflect current regional differences between irrigation intensities within Uttar Dinajpur. Through the southwestern region of the district stretching from Goalpokhar-2 to Itahar, the annual hectareage under intensively irrigated crops increases progressively, invariably extending over more than 50 percent of the GCA and touching a high of over 67 percent in Itahar. Raiganj records an irrigation intensity close to 61 percent, while Goalpokhar-2 and Karandighi record irrigation intensities between 57-58 percent. Despite their high cropping intensities exceeding 200 percent, Kaliaganj and Hemtabad have irrigation intensities of 46-48 percent, and therefore are less capable of supporting intensively irrigated crops. Irrigation intensities fall off very sharply in the three northern blocks to 20 percent in Goalpokhar-1, 17 percent in Islampur and 8 percent in Chopra. Thus while all blocks in Uttar Dinajpur with the exception of Chopra depend overwhelmingly on agriculture as their primary economic activity, the potentials for agricultural intensification and economic growth differ very strongly between the northern, southwestern and southeastern regions in the district. Three principal factors are responsible for these regional differences in irrigation access and irrigation intensity that currently exist within Uttar Dinajpur. While being conditioned by the uneven distribution of water resources within the three principal irrigation regions of the district, the regional differentials are also affected by the dominant forms of irrigation technology that have been deployed in each subregion and by the extent to which these irrigation technologies are divisible. Relative irrigation access in Uttar Dinajpur is also influenced by the land distribution across agrarian classes, which influences the scale and the economic viability of irrigated agriculture. All three factors have a combined impact on current irrigation intensities within Uttar Dinajpur district.

Traditional systems of irrigation in Uttar Dinajpur had evolved around the utilisation of surface runoff accumulated in the numerous natural waterbodies, marshlands and irrigation tanks which abound along the length of the district. However because of the rapid decline in precipitation from around 2800mm p.a in northern Chopra to less than 1500mm p.a in southern Itahar, traditional irrigation systems were more developed in the intensively settled blocks under Raiganj SD than in the Islampur SD blocks that had previously been part of Purnea district in Bihar. The regional breakthrough in irrigation came from the rapid multiplication of groundwater based systems starting from the late 1970s onward, after the DTW and STW technologies that had heralded the Green Revolution were popularised in the rainfed regions with World Bank lending support. While this inevitably drew attention away from surface irrigation schemes and also from major irrigation initiatives like the Tista Barrage Project [TBP] in which Uttar Dinajpur is to be a major beneficiary, the easy replicability and divisibility of STW tubewell technology led to its adoption on a large scale through private farmer initiatives. Between 1986-87 and 1994-95 therefore, STW installations in Uttar Dinajpur were estimated to have grown at a compound rate of over 34 percent p.a, with over 4256 STWs being added every year (2<sup>nd</sup> MI Census, 1993-94). While the rate of growth of STWs slackened to around 20 percent p.a between 1993-94 and 2000-01, annual STW additions over the period rose to over 4330 per year (3<sup>rd</sup> MI Census, 2000-01). Most STWs were private installations made by individual farmers wishing to switchover to the cultivation of boro rice.

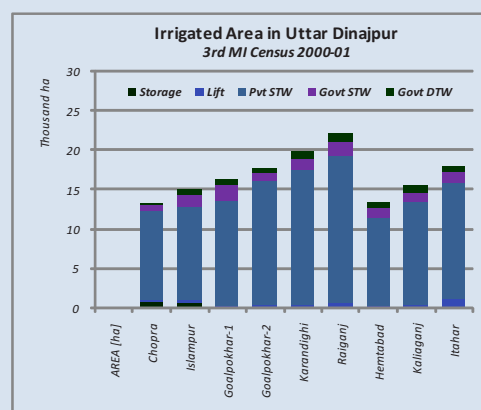
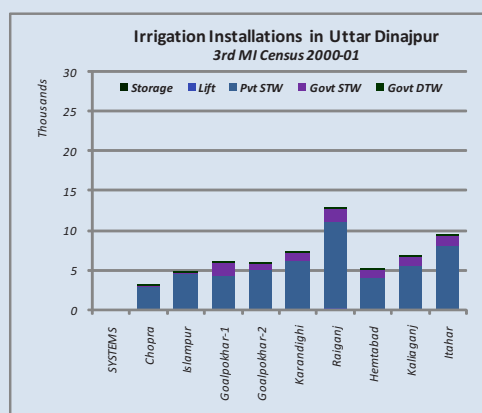
As indicated by the regional distribution of minor irrigation systems in Uttar Dinajpur at the time of the 3<sup>rd</sup> MI Census, private STWs collectively accounted for 79 percent of the MI installations and 84 percent of the irrigated area in the district and played a dominant role in expanding the access to irrigation in every Uttar Dinajpur block. With another 4 percent of the total irrigated area being served by government DTWs, nearly nine-tenths of the irrigation coverage in Uttar Dinajpur was directly attributable to the application of groundwater based technologies. Goalpokhar-2, Karandighi, Raiganj and Itahar held around 47 percent of the area irrigated by government-sector groundwater installations, and Hemtabad and Kaliaganj accounted for another 23 percent. The terai blocks comprising Chopra, Islampur and Goalpokhar-1 thus held around 30 percent of the area irrigated by government groundwater schemes. In contrast, the irrigation potential created through private initiatives was distributed much more unevenly across the district. Over 52 percent of the command area irrigated by private STWs was located within the western agricultural belt formed by

Goalpokhar-2, Karandighi, Raiganj and Itahar. In a continuum with this region, the northern blocks of Chopra, Islampur and Goalpokhar-1 accounted for another 29 percent of the command area, while the share of Hemtabad and Kaliaganj in the command area created by private groundwater schemes amounted for only 19 percent. Private capital formation was obviously much stronger in the southwestern agricultural blocks of Uttar Dinajpur, than elsewhere within the district.

**Table: Principal Sources of Irrigation in Uttar Dinajpur, 2001**

CD Block	Net Cultivated Area [ha]	Surface Flow & Storage Systems	Private Surface Lift Systems	Govt Shallow Tube wells [STWs]	Govt Shallow Tube wells [STWs]	Surface Deep Tube wells [DTWs]	Flow & Storage Area [ha]	Surface Lift Area [ha]	Private STW Area [ha]	Govt STW Area [ha]	Govt DTW Area [ha]	Total Irrigated Area [ha]
Chopra	22260	20	6	3000	217	2	750	240	11378	868	80	13316
Islampur	26000	80	6	4500	376	19	700	240	11906	1504	760	15110
Goalpokhar-1	29500	90	8	4225	1868	17	20	320	13339	1868	680	16227
Goalpokhar-2	29076	110	9	4895	968	15	55	360	15753	968	600	17736
Karandighi	29061	151	10	6000	1268	22	80	400	17133	1268	880	19761
Raiganj	35200	195	14	10896	1776	27	100	560	18660	1776	1080	22176
Hemtabad	16653	40	5	4000	1152	20	20	200	11335	1152	800	13507
Kaliaganj	23360	100	12	5417	1308	23	50	480	12893	1308	920	15651
Itahar	30182	120	25	7962	1476	18	90	1000	14821	1476	720	18107
<b>Uttar Dinajpur DT</b>	<b>241292</b>	<b>906</b>	<b>95</b>	<b>50895</b>	<b>12188</b>	<b>163</b>	<b>1865</b>	<b>3800</b>	<b>127218</b>	<b>12188</b>	<b>6520</b>	<b>151591</b>

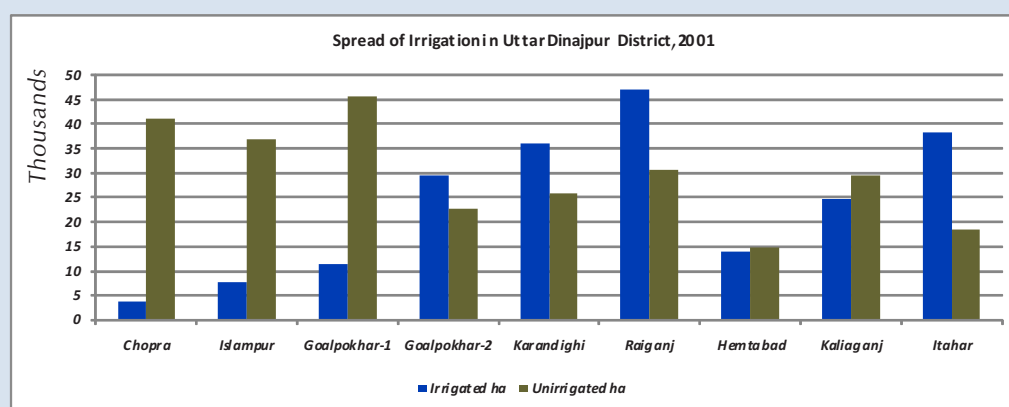
Source: Third Minor Irrigation Census, 2001



As the bar charts clearly reveal, the distribution of the total area under minor irrigation was much more even when compared to the distribution of MI installations within Uttar Dinajpur, indicating that the irrigation technologies deployed in different parts of the district have played an important role in evening out the regional distribution of the irrigated command area. Using identical pumping capacities, each government DTW and surface lift created an irrigated command of around 40ha, making the technology highly suitable for cluster irrigation schemes. However, the distribution of these high capacity irrigation installations was relatively uneven in Uttar Dinajpur, and major agricultural blocks like Karandighi, Raiganj, Itahar and Kaliaganj derived dual advantages from having the highest concentration of high-capacity DTWs as well as surface lifts. Each government STW irrigated an average command of 1ha, except in Chopra and Islampur where the government STWs had a larger average irrigation command of 4ha. However, the

average irrigation command of private STWs varied very widely across Uttar Dinajpur. While each private STW in Goalpokhar-1, Goalpokhar-2 and Chopra irrigated an average area of 3.2-3.8ha, the private STWs in Kaliaganj, Hemtabad, Islampur and Karandighi had an irrigation command of 2.4-2.9ha. Private STWs in the intensively irrigated blocks of Raiganj and Itahar had the lowest average irrigation commands ranging between 1.7-1.9ha. Such high variability in private STW commands across Uttar Dinajpur provides strong evidence of the divisibility of STW irrigation technology, which is the prime reason that has encouraged its adoption by agriculturists operating on widely diverging production scales.

While irrigation has gradually made its presence felt across the face of Uttar Dinajpur district, its spread so far has been uneven, as a result of which strong differences in irrigation access still exist in the Uttar Dinajpur blocks. Because of natural constraints on groundwater based irrigation in the terai region, the spread of groundwater based irrigation has been relatively slow through Chopra, Islampur and Goalpokhar-1, where only 0.23 lakh ha (15.5%) out of a total of 1.47 lakh ha of cultivable land is presently irrigated. The position is considerably better in the southwestern agricultural blocks of Goalpokhar-2, Karandighi, Raiganj and Itahar, where 1.51 lakh ha (60.7%) out of a total of 2.49 lakh ha of cultivable land have access to irrigation. Thus with around 52 percent of the cultivable land in Uttar Dinajpur, these four blocks collectively account for over 71 percent of the irrigated area in the district. Hemtabad and Kaliaganj with a cultivable area of 0.83 lakh ha have an irrigated area of 0.39 lakh ha. (46.6%).



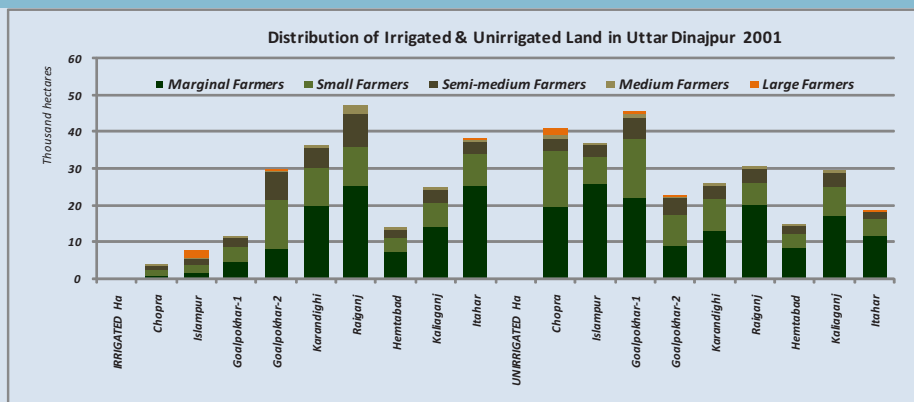
Since the land distribution in Uttar Dinajpur is heavily skewed towards small and marginal farmers who constitute nearly 95 percent of the cultivators and control three-fourths of the area committed to agricultural operations in the district, the economic situation of small and marginal farmers is strongly determined by the access they have to irrigation. In this respect, sharp divisions still exist within the district.



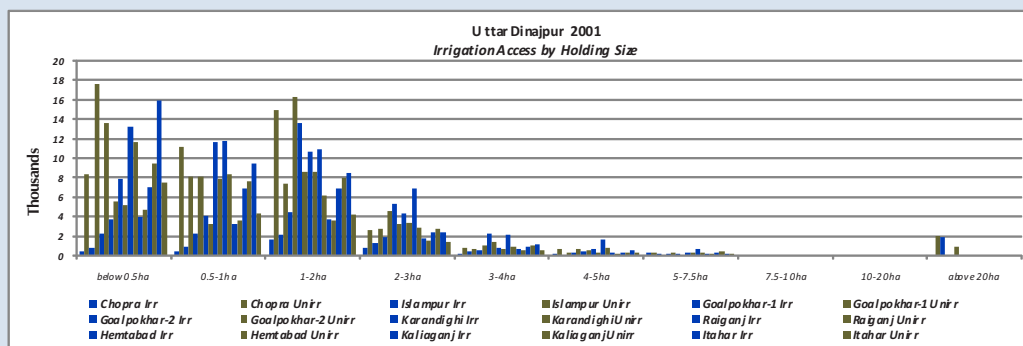
**Table: Irrigation Access among Landholding Groups in Uttar Dinajpur, 2001**

CD Block	Irrigated Area below 0.5ha	0.5-1ha	1-2ha	2-3ha	3-4ha	4-5ha	5-7.5ha	7.5-10ha	10-20 ha above	20ha	Irrigated Total [ha]
Chopra	329	422	1653	720	169	175	212	0	-	0	3680
Islampur	812	911	2065	1264	376	61	137	39	57	1821	7542
Goalpokhar-1	2178	2231	4429	1785	455	264	144	5	-	0	11491
Goalpokhar-2	3779	4100	13594	5310	2238	439	134	-	46	-	29639
Karandighi	7826	11691	10720	4313	789	568	283	-	-	-	36189
Raiganj	13292	11830	10875	6929	2134	1556	659	-	-	-	47275
Hemtabad	3974	3186	3764	1782	651	298	201	66	-	-	13921
Kaliaganj	7037	6951	6885	2421	859	320	298	40	-	-	24811
Itahar	15980	9438	8506	2397	1150	498	202	48	38	-	38258
<b>Uttar Dinajpur DT</b>	<b>55207</b>	<b>50760</b>	<b>62491</b>	<b>26921</b>	<b>8821</b>	<b>4179</b>	<b>2270</b>	<b>198</b>	<b>141</b>	<b>1821</b>	<b>212806</b>
CD Block	Un-irrigated Area below 0.5ha	0.5-1ha	1-2ha	2-3ha	3-4ha	4-5ha	5-7.5ha	7.5-10ha	10-20 ha above	20ha	Un-irrigated Total [ha]
Chopra	8438	11156	15028	2637	783	741	356	93	-	2089	41322
Islampur	17637	8125	7378	2747	700	244	57	0	0	0	36889
Goalpokhar-1	13618	8121	16355	4639	1039	631	279	79	-	995	45755
Goalpokhar-2	5606	3278	8616	3214	1376	550	58	-	47	-	22744
Karandighi	5098	7851	8637	3269	557	271	279	-	-	-	25960
Raiganj	11601	8287	6149	2793	839	775	232	-	-	-	30677
Hemtabad	4700	3656	3703	1628	553	263	232	104	-	-	14839
Kaliaganj	9462	7626	7981	2716	1053	256	386	40	-	-	29520
Itahar	7466	4369	4275	1354	501	353	156	65	59	-	18599
<b>Uttar Dinajpur DT</b>	<b>83626</b>	<b>62469</b>	<b>78122</b>	<b>24997</b>	<b>7401</b>	<b>4084</b>	<b>2035</b>	<b>381</b>	<b>106</b>	<b>3084</b>	<b>266305</b>
CD Block	Irrigated Area below 0.5ha	0.5-1ha	1-2ha	2-3ha	3-4ha	4-5ha	5-7.5ha	7.5-10ha	10-20 ha above	20ha	Irrigated Total [ha]
Chopra	3.8	3.6	9.9	21.4	17.8	19.1	37.3	0.0	-	0.0	8.2
Islampur	4.4	10.1	21.9	31.5	34.9	20.0	70.6	100.0	100.0	100.0	17.0
Goalpokhar-1	13.8	21.6	21.3	27.8	30.5	29.5	34.0	6.0	-	0.0	20.1
Goalpokhar-2	40.3	55.6	61.2	62.3	61.9	44.4	69.8	-	49.5	-	56.6
Karandighi	60.6	59.8	55.4	56.9	58.6	67.7	50.4	-	-	-	58.2
Raiganj	53.4	58.8	63.9	71.3	71.8	66.8	74.0	-	-	-	60.6
Hemtabad	45.8	46.6	50.4	52.3	54.1	53.1	46.4	38.8	-	-	48.4
Kaliaganj	42.7	47.7	46.3	47.1	44.9	55.6	43.6	50.0	-	-	45.7
Itahar	68.2	68.4	66.6	63.9	69.7	58.5	56.4	42.5	39.2	-	67.3
<b>Uttar Dinajpur DT</b>	<b>39.8</b>	<b>44.8</b>	<b>44.4</b>	<b>51.9</b>	<b>54.4</b>	<b>50.6</b>	<b>52.7</b>	<b>34.2</b>	<b>57.1</b>	<b>37.1</b>	<b>44.4</b>

Source: Agricultural Census, 2001



In Karandighi, Raiganj, Hemtabad and Kaliaganj blocks, marginal cultivators control well over half of the total irrigated land, while in Itahar their share in irrigated land rises to two-thirds. In Goalpokhar-1, the share of marginal farmers in irrigated lands falls to less than two-fifths of the total irrigated area, while in Chopra, Islampur and Goalpokhar-2, they control between a fifth and a fourth of the irrigated land. Small farmers in Hemtabad and Kaliaganj control between 27-28 percent of the irrigated land and in Karandighi their share rises to 30 percent, while in Itahar and Raiganj, they control less than a fourth of the total irrigated land. On the other hand, small farmers in Goalpokhar-1, Chopra and Goalpokhar-2 control between 39-46 percent of the irrigated land, while in Islampur, their share declines to 27 percent. Clearly, along with the advent and spread of divisible STW technology, the southern region has offered more equitable access to irrigation to small and marginal farmers, whose participation in subsequent cropping changes have boosted the agricultural productivity of these regions. Through most of the Islampur SD region from Chopra to Goalpokhar-1, agricultural productivity has remained low in comparison, because of existing constraints in accessing groundwater and the indivisibilities of surface irrigation, as well as the unequal irrigation access of small and marginal farmers, most of whose lands still remain unirrigated.

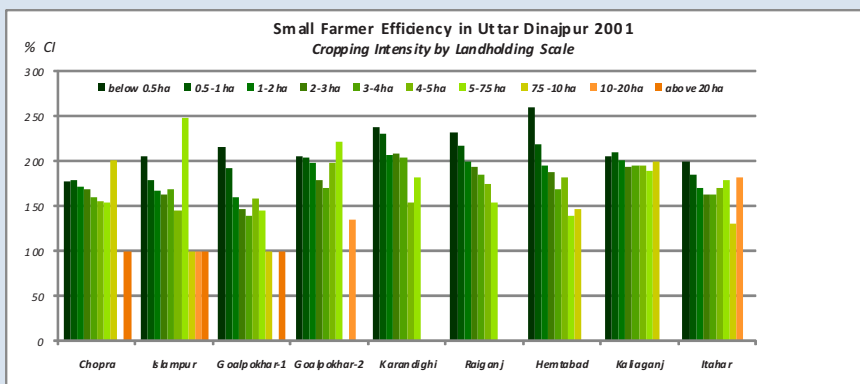
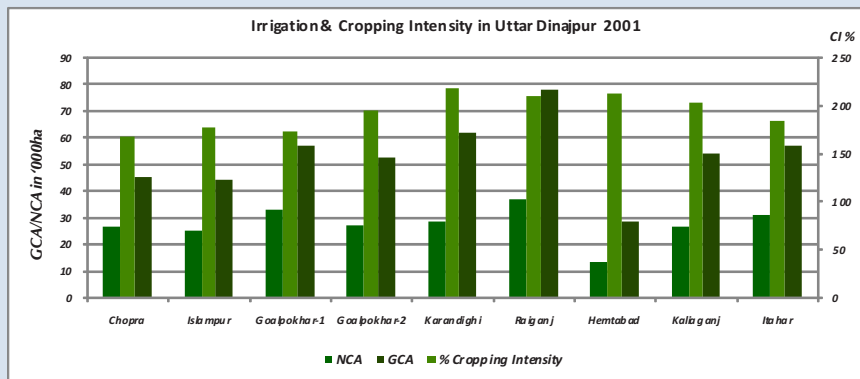


**Table: Multicropping Intensity among Landholding Groups in Uttar Dinajpur, 2001**

CD Block	NCA below 0.5ha	NCA 0.5-1ha	NCA 1-2ha	NCA 2-3ha	NCA 3-4ha	NCA 4-5ha	NCA 5-7.5 ha	NCA 7.5-10ha	NCA 10-20ha	NCA above 20ha	Total NCA [ha]
Chopra	4919	6429	9691	1986	594	588	370	46	-	2089	26711
Islampur	8945	5045	5619	2460	637	209	78	39	57	1821	24910
Goalpokhar-1	7305	5392	13027	4372	1072	564	291	84	-	995	33102
Goalpokhar-2	4558	3597	11178	4770	2119	501	86	-	69	-	26879
Karandighi	5430	8447	9344	3631	657	541	306	-	-	-	28356
Raiganj	10700	9284	8529	5009	1599	1330	575	-	-	-	37027
Hemtabad	3319	3125	3806	1815	712	308	312	116	-	-	13513
Kaliaganj	8007	6904	7383	2643	981	296	363	40	-	-	26616
Itahar	11694	7408	7481	2300	1014	501	201	86	53	-	30739
<b>Uttar Dinajpur DT</b>	<b>64877</b>	<b>55631</b>	<b>76058</b>	<b>28986</b>	<b>9385</b>	<b>4838</b>	<b>2582</b>	<b>411</b>	<b>179</b>	<b>4905</b>	<b>247853</b>
CD Block	GCA below 0.5ha	GCA 0.5-1ha	GCA 1-2ha	GCA 2-3ha	GCA 3-4ha	GCA 4-5ha	GCA 5-7.5 ha	GCA 7.5-10	GCA 10-20	GCA above 20ha	Total GCA [ha]
Chopra	8767	11578	16681	3357	952	916	568	93	-	2089	45002
Islampur	18450	9036	9443	4011	1075	305	194	39	57	1821	44431
Goalpokhar-1	15796	10352	20783	6424	1493	895	423	84	-	995	57246
Goalpokhar-2	9385	7378	22210	8524	3614	990	191	-	93	-	52384
Karandighi	12923	19541	19357	7582	1346	839	561	-	-	-	62150
Raiganj	24893	20117	17024	9723	2973	2331	891	-	-	-	77952
Hemtabad	8675	6842	7466	3410	1204	561	433	170	-	-	28760
Kaliaganj	16499	14577	14866	5137	1911	576	685	80	-	-	54331
Itahar	23446	13807	12781	3751	1652	852	359	113	97	-	56857
<b>Uttar Dinajpur DT</b>	<b>138834</b>	<b>113228</b>	<b>140611</b>	<b>51919</b>	<b>16220</b>	<b>8265</b>	<b>4305</b>	<b>579</b>	<b>247</b>	<b>4905</b>	<b>479113</b>
CD Block	Cropp- ing Inten- sity [%] 0.5ha	% CI 0.5-1ha	% CI 1-2ha	% CI 2-3ha	% CI 3-4ha	% CI 4-5ha	% CI 5-7.5 ha	% CI 7.5-10 ha	%CI 10-20 ha	%CI above 20ha	Total Cropp- ing [%]
Chopra	178	180	172	169	160	156	154	202	-	100	168
Islampur	206	179	168	163	169	146	249	100	100	100	178
Goalpokhar-1	216	192	160	147	139	159	145	100	-	100	173
Goalpokhar-2	206	205	199	179	171	198	222	-	135	-	195
Karandighi	238	231	207	209	205	155	183	-	-	-	219
Raiganj	233	217	200	194	186	175	155	-	-	-	211
Hemtabad	261	219	196	188	169	182	139	147	-	-	213
Kaliaganj	206	211	201	194	195	195	189	200	-	-	204
Itahar	200	186	171	163	163	170	179	131	183	-	185
<b>Uttar Dinajpur DT</b>	<b>214</b>	<b>204</b>	<b>185</b>	<b>179</b>	<b>173</b>	<b>171</b>	<b>167</b>	<b>141</b>	<b>138</b>	<b>100</b>	<b>193</b>

Source: Agricultural Census, 2001

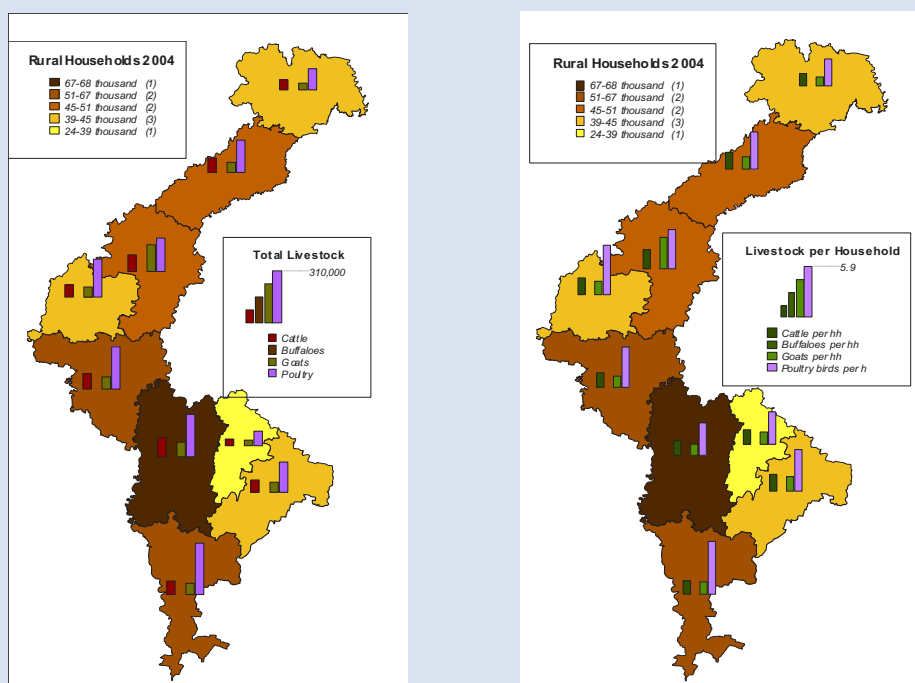
Despite the overall dominance of small and marginal cultivators in Uttar Dinajpur and the relatively small size of the average agricultural holdings, access to irrigation has had a major impact on the extension of multicropping among small and marginal farms in the district. With a total NCA of 1.21 lakh ha among the marginal landholding groups in the district, the extent of GCA is as high as 4.79 lakh ha, yielding an overall multicropping intensity of 209 percent among marginal farmers in the Uttar Dinajpur as a whole. While cropping intensities on marginal farms in Goalpokhar-1, Goalpokhar-2 and Kaliaganj range between 206-208 percent, they rise to 225 percent in Raiganj, 234 percent in Karandighi and 241 percent in Hemtabad, and range between 179-195 percent in Chopra, Islampur and Itahar. On an average therefore, most marginal farmers in Uttar Dinajpur are able to grow upto two crops per year, while in the agriculturally advanced blocks of Raiganj, Karandighi and Hemtabad, many grow upto three annual crops. Cropping intensity among small farmers in the district averages 185 percent, with only Raiganj, Kaliaganj and Karandighi surpassing double-cropping intensities of 200 percent. Through most small farms, cropping intensities are considerably lower, ranging between 196-199 percent in Hemtabad and Goalpokhar-2, between 171-172 percent in Itahar and Chopra, and between 160-168 percent in Goalpokhar-1 and Islampur. Multicropping falls off further among semi-medium farmers (district average 178%), medium farmers (168%) and large farmers (101%). Uttar Dinajpur thus represents a typical case of small farm efficiency, where farmers have overcome the limitations of small operational holding-size through recourse to better technological inputs and advanced agricultural practices.



### Subsidiary Rural Livelihood Activities

In marginal farmland areas where poorer land quality and limited access to water resources inhibit the intensification of agriculture, it is usual for mixed livelihood systems to evolve in which rural families combine farming operations with livestock based activities. The northern terai blocks of Chopra, Islampur and Goalpokhar-1 in Uttar Dinajpur, which still hold most of the district's surviving forests and culturable wastelands, once specialised in such mixed livelihood activities. Two terai blocks, namely Goalpokhar-1 and Chopra still hold nearly two-thirds of the non-agricultural lands in Uttar Dinajpur amounting to an aggregate area of 3387ha, within which Goalpokhar-1 alone accounts for 2426ha. Except in Raiganj block which retains a fair proportion of the district's protected and reserved forests, the non-agricultural area declines substantially in the southern blocks. Goalpokhar-1, Karandighi and Raiganj hold around 42 percent of the bovine livestock in Uttar Dinajpur which in 2004 amounted to 7.55 lakh heads of cattle and 0.34 lakh buffaloes, with the average cattle holding per rural household in the district amounting to 1.83 livestock heads. The three blocks also held 48 percent of the livestock population of 6.83 lakh goats and 39 percent of the poultry population of 18.26 lakh birds. Over the long term however, the bovine population has declined in Uttar Dinajpur, while the ovine and poultry population has risen over the same period. With the rise in human populations and increasing rural settlement across the district, there has been a substantial decline in the accessibility of adequate pasturage. Rural households who engage in livestock based activities as a subsidiary form of livelihood have adapted to this change by shifting on a large scale from the rearing of larger livestock to the rearing of goats. Thus each rural household in the district now rears an average of 1.66 goats, while in Goalpokhar-1 this average rises to 3.61 animals per household. Average backyard poultry holdings in the district amount to 4.49 birds per household. While livestock activities based on the rearing of goats and poultry involve smaller amounts of capital compared to bovine livestock, the milk economy is affected adversely in the rural areas. The shift from the milk economy to the meat economy largely benefits urban populations in Uttar Dinajpur and in the adjoining Siliguri area which relies on northern Uttar Dinajpur as its primary source for meat supplies. However, by reducing milk consumption and nutritional levels among rural children, the shift has had an adverse impact on the health situation in Uttar Dinajpur.

**MAP: Livestock Economy in Uttar Dinajpur, 2004**



**Table: Livestock Ownership Patterns among Landholding Groups in Uttar Dinajpur, 2001**

Cultivator Groups	Land Size-class	Draught Cattle	Milch Cattle	Draught Buffa-loes	Milch Buffa-loes	Total Bovine Lives -tock	Goats	Sheep	Total Ovine Lives -tock	Pigs
<b>TOTAL LIVESTOCK HOLDING</b>										
Marginal farmers	below 1ha	235880	220433	20845	11907	489065	348632	1699	350331	30782
Small farmers	1-2ha	80465	59180	7939	3266	150850	85183	1383	86566	4696
Semi-medium farmers	2-4ha	33246	24017	3530	1510	62303	30306	245	30551	3546
Medium farmers	4-10ha	8220	5545	809	251	14825	5984	-	5984	188
Large farmers	above 10ha	25	30	-	-	55	35	-	35	-
All Farmers		357836	309205	33123	16934	717098	470140	3327	473467	39212
<b>AVERAGE LIVESTOCK HOLDING</b>										
Marginal farmers		1.13	1.06	0.10	0.06	2.35	1.68	0.01	1.69	0.15
Small farmers		1.88	1.38	0.19	0.08	3.53	1.99	0.03	2.02	0.11
Semi-medium farmers		2.54	1.83	0.27	0.12	4.75	2.31	0.02	2.33	0.27
Medium farmers		5.10	3.44	0.50	0.16	9.19	3.71	0.00	3.71	0.12
Large farmers		0.34	0.41	0.00	0.00	0.74	0.47	0.00	0.47	0.00
All Farmers		1.35	1.16	0.12	0.06	2.70	1.77	0.01	1.78	0.15

Source: Input Survey, Agricultural Census, 2001

Livestock based activities are a primary source of livelihood support for marginal farmer households in Uttar Dinajpur, who own 68 percent of the total bovine livestock and 74 percent of the total ovine livestock in the district. Small farmer households own another 21 percent of the bovine livestock and 18 percent of the ovine livestock. However, since the average livestock heads owned per household rise in accordance with the size-class of the family farm, semi-medium and medium farmers own considerably more livestock assets per household.

In view of the economic importance of livestock based livelihoods in the rural areas of Uttar Dinajpur, the Animal Resource Development [ARD] Department undertakes several programme activities in the district, with the overall intent of expanding the production of milk, eggs and meat through breed improvement, scientific livestock nutrition and expanded access to artificial insemination [AI] and veterinary services. Efforts have also been mounted to increase fodder cultivation in the district, in order to alleviate the problems posed by limited access to pasture lands. Recognising the dominant role played by rural women in livestock activities, women's SHGs are being specially targeted by ARD programmes for the distribution of ducklings and poultry chicks of improved breeds. The ARD Department has also appointed 109 rural extension workers or *Prani Bandhus* to serve the 98 Gram Panchayats in Uttar Dinajpur, who arrange for AI services and basic veterinary treatment at a minimum service charge. The main strength of livestock development programmes in the district lies in the willingness of small and marginal farm households to involve themselves in such activities as a subsidiary livelihood source. Based on this, Uttar Dinajpur has the potential to evolve as a major economic centre for modern dairying, goatery and broiler farming activities.

### Rural Poverty Situation in Uttar Dinajpur

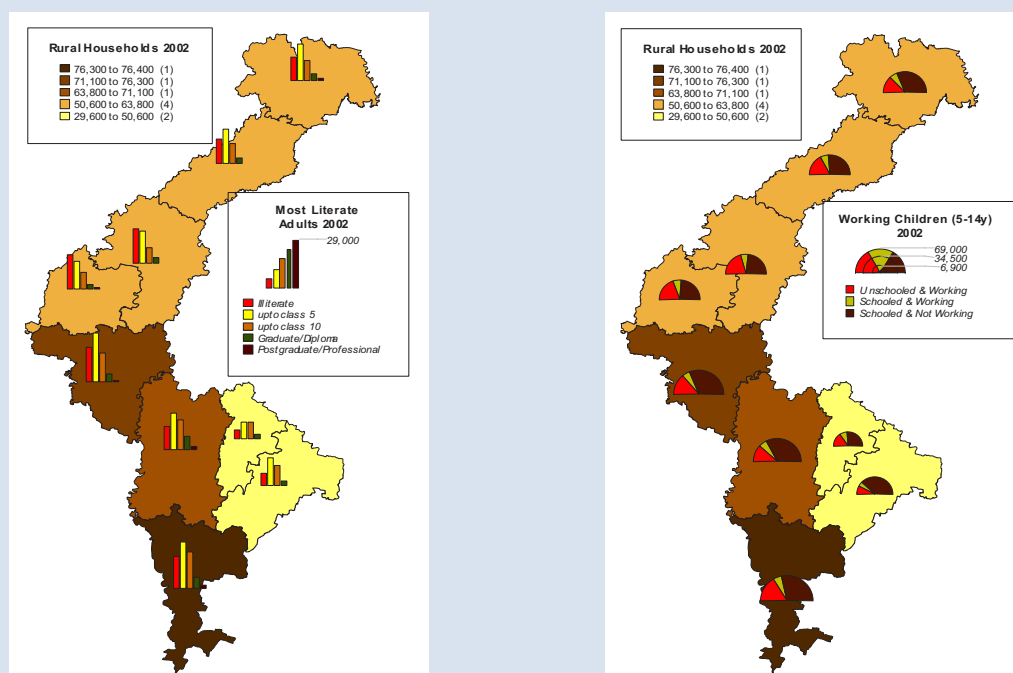
Uttar Dinajpur suffers considerably from literacy and educational deficits, and has a large population component comprising rural landless workers as well as socially underprivileged groups such as the SCs, STs and Muslims who collectively accounted for 89 percent of the district's population in 2001. As such,

current rural poverty situations in the district are a cause for immediate concern. In 2002, 47.6 percent of the rural households in Uttar Dinajpur were classed within the BPL groups. This ratio stood much in excess of the national poverty averages. Despite the high overall presence of SC and ST groups in the Uttar Dinajpur population, the pattern of economic deprivation in the district did not exactly coincide with their distribution across the Uttar Dinajpur blocks. While an agriculturally important region like Itahar, for instance, had an SC/ST concentration of 35 percent in its population, the proportion of BPL households in Itahar was estimated at 68 percent. Similarly adverse situations also existed in Goalpokhar-1 and Goalpokhar-2, which had an SC/ST concentration ranging between 18-29 percent in their population but had a BPL concentration rate ranging between 59-65 percent. The distribution of rural poverty across Uttar Dinajpur therefore appears to result from the combination of several determining factors which include the extent of landlessness, the extent of irrigation and multicropping, the extent of rural landlessness and seasonal versus perennial demands for agricultural labour and local wage rates, and the resulting concentration of marginally employed landless sections who often fail to find adequate work.

Information on various rural poverty markers and the overall incidence of poverty among rural households in Uttar Dinajpur available from the BPL Survey which was conducted in 2002 (later renamed as the *Rural Household Survey [RHS] 2002*), has been represented visually in the associated series of regional poverty maps. Because of variations in block size as well as the varying patterns of population dispersal across the district, 2.11 lakh (43.2%) of the 4.89 lakh listed rural households now reside in the dense cluster of three blocks formed by Karandighi, Raiganj and Itahar. Itahar accounts for over 0.73 lakh (15.6%) rural households, followed closely by Karandighi with 0.71 lakh (14.5%) households and Raiganj with 0.64 lakh (13.1%) households. In contrast, the four remaining blocks of Islampur SD collectively account for 2.08 lakh (42.6%) households, while another 0.70 lakh (14.2%) rural households reside within Hemtabad and Kaliaganj. These patterns of dispersal also closely reflect the historical patterns of settlement in Uttar Dinajpur, which have been conditioned by the longterm patterns of rural livelihood as well as the overall accessibility of work. The proportion of BPL households ranges between 37-65 percent in Karandighi, Raiganj and Itahar, between 41-65 percent in Islampur, Chopra, Goalpokhar-1 and Goalpokhar-2, and between 35-57 percent in Kaliaganj and Hemtabad.

Sharp differences are seen to exist between the Uttar Dinajpur blocks in terms of the literacy attainments of rural households, represented in the BPL Survey, 2002 by the level of education attained by the most literate member of the household. Through Karandighi, Raiganj and Itahar, most rural households have at least one member who has received primary education, and many households in Raiganj and Itahar have a member whose education has advanced beyond that stage. In Karandighi, the proportion of rural households with wholly illiterate members is still relatively high compared to Raiganj and Itahar. With many more rural households having members who have received formal education, Kaliaganj and Itahar are therefore more educationally advanced than Karandighi, Raiganj and Itahar. In contrast, rural households in Goalpokhar-1 and Goalpokhar-2 show high levels of illiteracy, while Islampur and Chopra also lag behind the southern blocks in terms rural educational attainments. These patterns of educational attainment among rural adults coincide with the incidence of child labour among rural children of school-going age in Uttar Dinajpur. In the southern blocks, the proportion of rural children attending school and not working is much higher than in Goalpokhar-1, Goalpokhar-2 and Islampur, where the incidence of rural poverty is more severe. With 32 percent of the rural households in Uttar Dinajpur, Goalpokhar-1, Goalpokhar-2 and Islampur account for nearly 40 percent of the working children in the district. In contrast, Karandighi and Raiganj with 28 percent of the rural households account for less than one-fourth of the working children in the district.

MAP: Rural Educational Attainments & Child Labour in Uttar Dinajpur, 2002



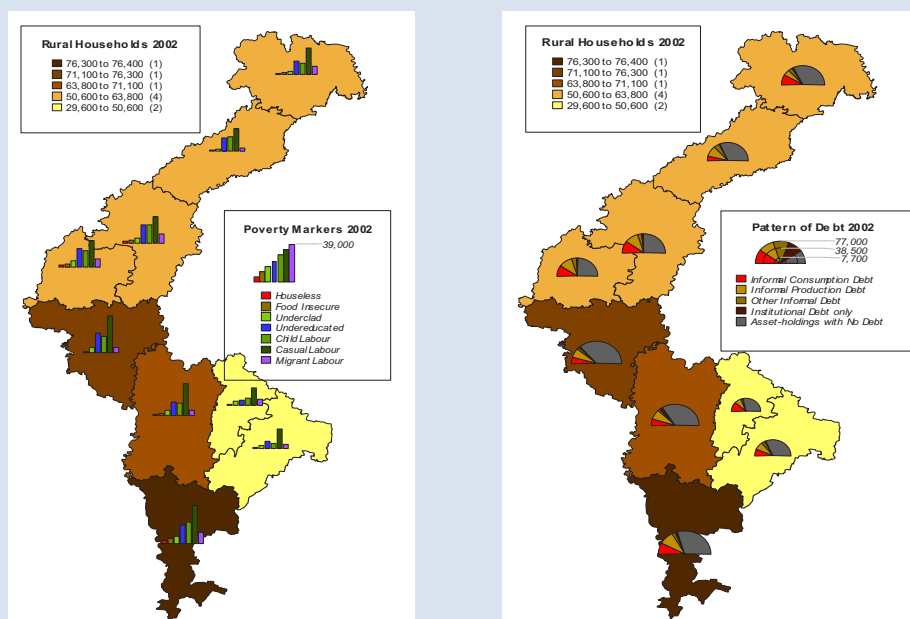
The severity of regional poverty in Uttar Dinajpur is further substantiated by the poverty indicators used during the BPL Survey, 2002, which reveal the plural dimensions of rural poverty in the district. In the densely populated blocks of Karandighi, Raiganj and Itahar, the major sources of poverty are rooted in the lack of adequate education and adequate opportunities for year-round work. The resulting pressure on children of school-going age to go out and work is also correspondingly high, particularly in Itahar and Karandighi. Labour out-migration in search of work is also present in Raiganj and Karandighi and reaches appreciable proportions in Itahar. The rural poor in Itahar also suffer from a greater degree of food insecurity and houselessness, and the insufficiency of clothing is common to the rural poor in all three blocks. Although the overall poverty situation improves in Hemtabad and Kaliaganj, the main cause of rural poverty in these blocks is the lack of adequate opportunities for work, which also results in seasonal labour out-migration. While pressure on children to work also prevails among the poorer sections of the rural population in both blocks, under-education is more of a problem in Kaliaganj and does not affect Hemtabad to the same extent. Uttar Dinajpur occupies an adverse position with regard to the provision of basic entitlements, including food, shelter and clothing to the rural population. Throughout the northern blocks of Islampur SD, rural poverty is rooted in the casual nature of rural work opportunities and in the inadequate educational attainments of the rural population. The pressure on children to work is also relatively high, particularly in Goalpokhar-1 and Goalpokhar-2. With the exception of Islampur block, the pressure for rural workers to migrate in search of work is also high, even in Chopra where diversified work opportunities are available outside the agricultural sector. A significant section among the rural poor in Goalpokhar-1 and Goalpokhar-2 is also houseless and food-insecure.

Indebtedness among the rural poor is a phenomenon that prevails widely in rural regions. Even though indebtedness levels vary across the district, sizeable sections of the rural population in the Uttar Dinajpur blocks incur debt both for meeting consumption expenditure as well as for other productive purposes. Consumption loans are nearly as important as production loans in most rural areas of Uttar Dinajpur. Significantly, few rural borrowers across the district, other than a small section of rural households living in Raiganj and Karandighi near the headquarters region, are able secure such loans from formal credit institutions in the public and cooperative sector, and have to depend therefore on high interest bearing loans taken



informal credit agents such as moneylenders. Information gaps as well as procedural hurdles in securing institutional loans are both responsible for the increased levels of rural debt in the district. Indebtedness levels are the highest in Goalpokhar-1, Goalpokhar-2 and Itahar, and are relatively moderate in Chopra and Islampur and in Hemtabad and Kaliaganj. Rural indebtedness levels are the lowest in Karandighi followed by Raiganj, which are both agriculturally advanced blocks. Hence the asset holding patterns of rural households are also relatively better in Raiganj, followed by Karandighi and Itahar, even though Itahar has the highest concentration of BPL households. While significant sections of the rural population in the other blocks also own assets without carrying debt, their proportion is the lowest in Goalpokhar-1 and Goalpokhar-2.

### MAP: Rural Poverty Markers & Patterns of Rural Indebtedness in Uttar Dinajpur, 2002

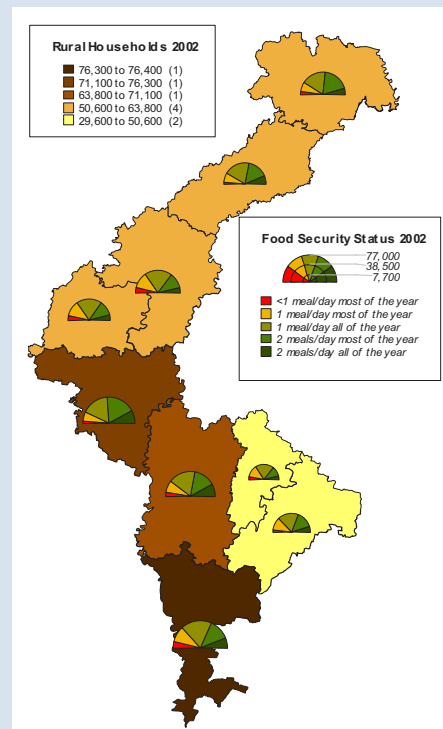
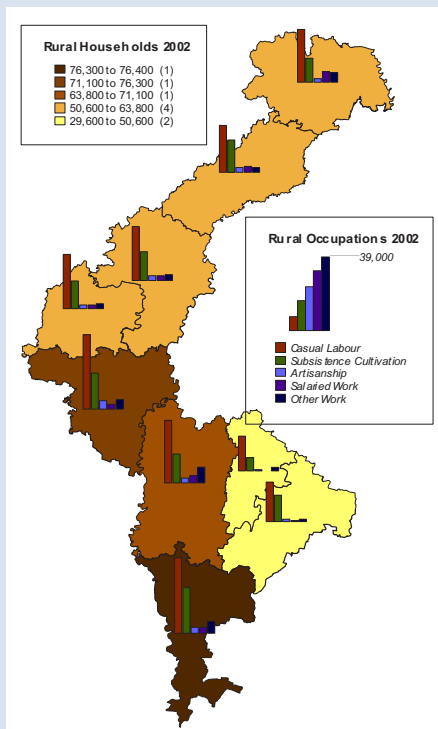


In addition to Census, 2001, figures that reveal the existence of a large marginal workforce in Uttar Dinajpur, strong evidence of the overall lack of adequate work opportunities is also found in the predominance of subsistence cultivators and casual workers across the district. Even in blocks where opportunities for alternative works can be found, such as Chopra, Goalpokhar-1, Karandighi and Raiganj, subsistence cultivation and casual labour still prevail as dominant livelihood activities. This attests to the deeprootedness of rural poverty in Uttar Dinajpur, based on widespread assetlessness and the lack of adequate employment opportunities, which has also created a large segment of footloose workers who out-migrate at some point during the year to seek out better work opportunities. Traditional livelihood activities like artisanship are more present in Karandighi and Itahar than in the other Uttar Dinajpur blocks. Because of the dense clustering of the rural population and the crowding of agricultural work, more rural households in the three major agricultural blocks of Raiganj, Itahar and Karandighi, and also in Chopra where there has been a switch from agriculture to the growing of tea, depend on other non-agricultural forms of work including salaried employment.

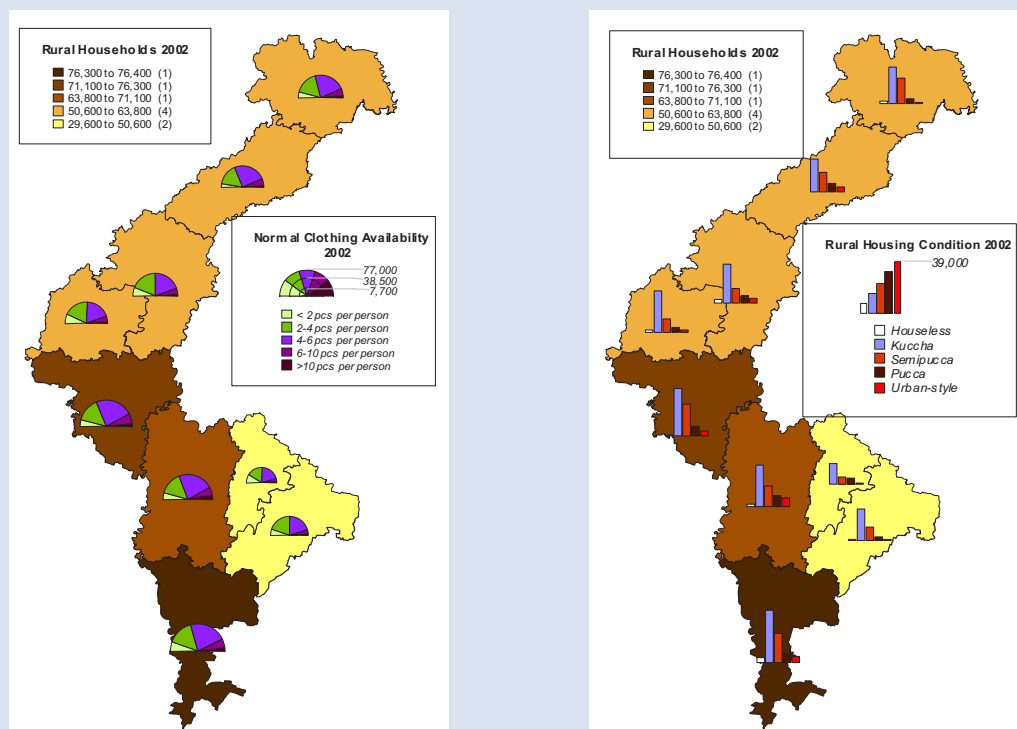
Food insecurity levels among the rural population of Uttar Dinajpur indicate the strong presence of poverty threats. Because of inadequate earnings as well as the inadequate availability of work, sizeable sections of the rural population are unable to ensure an adequate intake of food throughout the year. While less than 13 percent of the rural households in the district are able to secure two meals a day throughout the year, 29 percent of the households are able to secure two meals a day for a certain portion of the year. The dominant

section, comprising 36 percent of the rural households in Uttar Dinajpur, can only ensure the availability of one meal a day throughout the year, and around one-fourth of the rural households are highly food insecure. Thus with more than four-fifths of the rural households not being assured of two square meals per day throughout the year, rural Uttar Dinajpur is still a long way from being food secure. Food insecurity reaches severe levels in Goalpokhar-1 and Goalpokhar-2, where more than 90 percent of the rural households are not assured of two square meals per day throughout the year, over two-thirds are not assured of two daily meals at any point during the year, and close to one-third cannot secure one daily meal throughout the year. Chronic food insecurity, which exists in situations where the earnings of the household are not adequate to be assured even one daily meal through most of the year, affects around 8 percent of the rural households in Goalpokhar-1, Goalpokhar-2 and Itahar, around 6-7 percent of the households in Raiganj and Hemtabad, and around 3-5 percent of the households through the rest of the district. With more work opportunities outside the farm sector and relatively high work participation rates, Karandighi is most favourably placed in terms of its low rate of chronic food insecurity. Nonavailability of year-round work also creates a link between food insecurity and rural indebtedness in the district. The proportion of loans taken for consumption purposes is relatively high through most Uttar Dinajpur blocks, since these loans provide the households with a means during periods of seasonal slack and food deprivation. The paucity of year-round work opportunities through most of the rural Uttar Dinajpur, therefore, extracts a multiple price.

## MAP: Work & Food Security in Uttar Dinajpur



## MAP: Access to Shelter &amp; Clothing in Uttar Dinajpur



Another poverty indicator is provided by the access of the rural population to adequate shelter and clothing. While being essential in nature, clothing needs in food insecure households do not receive the same priority as the basic needs for food. Most rural households in Uttar Dinajpur, therefore, subsist with an average of 2-4 pieces of clothing per household member per year. Even in Raiganj SD where the picture is marginally better because of greater rural employment opportunities, the majority of households have access to 4-5 pieces of clothing per member per year. Without posing a major problem in the district, houselessness is present to a fairly significant extent in Itahar, Raiganj, Goalpokhar-1 and Chopra. While the overwhelming majority of rural residents live in *kuchcha* houses throughout the district, the proportion of households residing in *pucca* and semi-*pucca* structures increases with the betterment of economic situations. Thus the more developed blocks like Raiganj, Kaliaganj and Itahar in Raiganj SD, and Karandighi, Islampur and Chopra in Islampur SD have a greater preponderance of households living in permanent dwelling structures. Higher presence of semi-pucca dwellings in the agriculturally developed blocks indicates that a section of cultivators have become relatively better off because of their agricultural earnings. In Chopra, however, where a switch has occurred in recent times from crop farming to alternatives like tea cultivation, the source of relative prosperity among a section of landholding families is derived from the alternative earnings from tea cultivation and non-farm work. However, the marginal and landless sections across the district have not shared in this new prosperity, and consequently continue to reside in *kuchcha* homes.

As a result of land reforms, a formerly landless section among the rural households has derived benefits from land redistribution by acquiring homestead land. However, since this has also drawn in a large number of landless families seeking shelter or agricultural work, rural resettlement rates have increased leading to dense settlement in the main agricultural belt. *Pucca* urban style housing is also noticed along villages located favourably along roads and highway in Islampur, Goalpokhar-1 and Raiganj blocks. Besides, other factors like earning from remittances etc., this trend is also connected with the hinterland effect resulting from the growth of agricultural trade especially in the vicinity of towns like Raiganj, Islampur, Dalkhola and Kaliaganj and also in neighbouring Kishanganj which lies just across from the inter-state border in Goalpokhar-1.

### Non-Farm Livelihoods in Uttar Dinajpur

Although agriculture continues to be the principal provider of rural livelihoods in Uttar Dinajpur, escalating pressure on land and rising competition among wage-labourer has greatly reduced livelihood security within the agricultural sector, deepening the incidence of rural poverty in the district. Technological advances like intensified groundwater irrigation and multicropping which had previously expanded agricultural employment have gradually reached their physical limits. Hence the amelioration of the rural livelihood crisis in Uttar Dinajpur will depend ultimately on the growth of non-farm employment on a suitable scale. Although lacking in medium or large-scale industries with the exception of the ailing West Dinajpur Spinning Mills at Raiganj, Uttar Dinajpur has traditionally had a base of rural non-farm activities that include home based industry and artisanship, crafts & cottage industries and small-scale agro processing units in the unorganised sector. In blocks like Itahar, Raiganj and Karandighi where land pressures the highest, these traditional activities have formed a livelihood substitute for rural households which combine non-farm employment with part-time or seasonal engagement as wage labourer. The spread of tea plantations in the northern blocks has also encouraged a switch from agriculture to non-agricultural employment in the plantations and bought leaf factories in several parts of Chopra, Islampur and Goalpokhar-1. A flourishing *beedi* binding industry has taken root in Karandighi which engages vast numbers of rural women as informal home based workers. More than eleven hundred rural households across the district are engaged in traditional crafts based industries, among which *dhokra* mat making, terracotta, village pottery and bamboo craft in the Goalpokhar-1 and Kaliaganj regions are notable. Concentrations of small and micro enterprises engaged in various manufacturing services also exist at several places within Uttar Dinajpur, among which those around Raiganj and Kaliaganj are most significant.

Although many places in rural Uttar Dinajpur have difficult communications because of their proximity to the long international border, the district in itself forms an arterial link between the northernmost districts of West Bengal and the southern region. Railways touch several important points in Islampur SD, linking them to Siliguri and Kishanganj. The railway transit corridor between Barsoi in Bihar and Radhikapur on the international border in Kaliaganj block passes through Raiganj and has recently been upgraded to provide direct railway connectivity to the city of Raiganj. Two busy national highways pass through the district, of which NH31 connects Uttar Dinajpur to Guwahati and the Northeast and transits into Bihar, while NH34 connects the district to Kolkata, with Dalkola serving as the junction point of the two highways. With such high arterial connectivity, Uttar Dinajpur has the potential to emerge as a major manufacturing and processing area particularly for agro based industry, since it also has a large labourforce with low wage demands. Jute, pineapples and tea are already being produced in the district on a commercial scale, in addition to vast quantities of rice. Thus industrialisation in the district is not a distant possibility, and can be accelerated over the near future if the right combinations of public and private investment decisions are made.

Crafts based livelihood activities in Uttar Dinajpur can be looked at as a step within the traditional rural industrialisation process, where rural community groups that have little control over agricultural land have supplemented wage-labourer earnings with earnings acquired from the efficient practice of specific artisanal skills in conjunction with locally available materials and resources. As enterprise activities, artisanship and craftsmanship are thus very similar to industrial processes. Because of its antiquity, the Dinajpur region has a long historical tradition of fine craftsmanship and artisanal trades. Artisan groups comprise sizeable sections of the SC and OBC communities in Uttar Dinajpur, some of whom have migrated into the district from East Bengal in the wake of Partition while others have been resident in the district for a longer length of time. All Uttar Dinajpur blocks with the exception of Goalpokhar-2 thus have artisanal clusters in their midst, where large groups of artisan households practising the same craft live in close proximity to each other. Like any modern industrial complex, the clustered location of artisanal crafts in the district extends the benefits of economies of scale to each artisan household by reducing organisational and marketing costs considerably. Extension of credit and technical support under various government schemes also

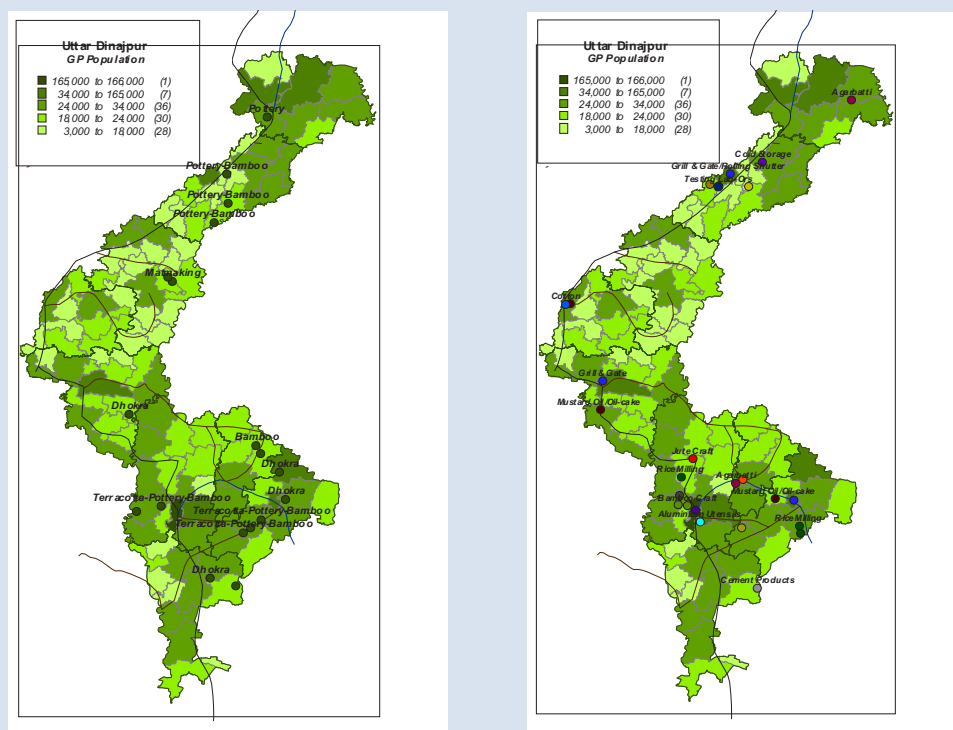
becomes more efficient. The largest of these artisanal clusters are located in Kaliaganj and Goalpokhar-1, and are followed by those in Raiganj and Itahar. Artisan clusters at in the densely populated blocks of Kaliaganj and Raiganj produce a variety of terracotta and pottery art and bamboo crafts, utilising local clay from beds along regional rivers and the dense groves of bamboo that dot the region. Those at Itahar and Goalpokhar-1 specialise in weaving coloured *dhokra* jute cloth and mats from jute twine, adding commercial and artistic value to the abundant crop of jute that is grown annually in the district. Pottery craft is also produced in Chopra and bamboo craft in Hemtabad. Although Goalpokhar-2 has no demarcated artisan cluster at present, Chakulia had been well known as a major producer of wooden cartwheels for bullock carts, until the advent of modern motorised transport. Its proximity to the erstwhile forested tracts of Goalpokhar-1 and Islampur played an important role in the early development of the wheelmaking industry in the region. The demise of this traditional activity thus underlines the need for constantly updating product lines and extending marketing support for the survival of artisanal livelihoods in Uttar Dinajpur.

**Table: Village Industry Clusters in Uttar Dinajpur, 2007**

CD Block	Artisanal Craft	Villages with Artisanal Concentrations	Total Artisan Families Engaged	Artisanal Loan Beneficiaries 2004-07	Artisanal Pension Beneficiaries upto 2006-07
Chopra	Pottery	Kalagachh	35	8	2
Islampur	Pottery/Bamboo craft	Collegepara, Kachharigachh, Porabhita & Barduari	53	-	3
Goalpokhar-1	Mat-making	Hariano & Lodhan	325	-	3
Goalpokhar-2	-	-	-	-	3
Karandighi	Dhokra jute-mats	Sabdhan	50	2	3
Raiganj	Terracotta/Pottery/Bamboo craft	Subhasganj & Bahin	140	39	3
Hemtabad	Bamboo craft	Naoda & Baharail	30	7	6
Kaliaganj	Terracotta/Pottery/Bamboo craft	Anantapur, Hatpara, Kunor	375	5	5
Itahar	Dhokra jute-mats	Dhankail, Patirajpur & Durlabhpur	100	2	3
<b>Uttar Dinajpur DT</b>			<b>1108</b>	<b>63</b>	<b>31</b>

Source: District Industries Centre [DIC], Uttar Dinajpur

MAP: Artisanal and SSI Industrial Clusters in Uttar Dinajpur



Examination of population and work profiles in the areas in which these artisanal clusters are located show that the existence of rural artisanship in conjunction with agricultural activities plays an important role in boosting main work participation rates in these rural regions. Most villages where artisanal clusters exist have relatively high concentrations of SC communities, among whom a relatively large section possesses specialised skills in traditional artisanship and craftsmanship. Main work participation is generally high in artisanal areas because of higher combined rates of participation in agricultural and nonagricultural work. Since the work takes the form of a collective family enterprise, main work participation rates among women in these areas also improve substantially.

Table: Concentrations of Traditional Village Industries & Handicrafts in Uttar Dinajpur, 2007

Craft Centre	Craft	Mouza	Gram Pan-chayat	2001 Popula-tion	2001 % SC	2001 % ST	2001 % WPR	2001 % Male WPR	2001 % Female WPR
Kalagachh	Pottery	Bhagabati	Chopra	8868	37.4	21.3	33.9	49.6	16.7
Collegepara	Pottery-Bamboo	Bolhanja	Islampur	2214	47.9	0.3	29.9	47.8	11.2
Porabhita	Pottery-Bamboo	Benikandar	Matikunda-2	1197	43.8	3.9	39.3	56.1	21.5
Kachharigachh	Pottery-Bamboo	Jagatagaon	Matikunda-2	4693	67.1	-	35.2	48.7	20.2
Hariano	Matmaking	Hariano	Lodhan	2374	-	-	46.5	53.8	38.7
Lodhan	Matmaking	Lodhan	Lodhan	3059	4.4	-	47.0	57.2	35.8
Sabdhan	Dhokra	Sabdhan	Lahutara-1	4573	22.3	-	38.2	48.7	27.5
Subhasganj	Terracotta-Pottery-Bamboo	Chapduar	Bahin	2847	31.5	5.3	36.5	52.7	18.3

**Table: Concentrations of Traditional Village Industries & Handicrafts  
in Uttar Dinajpur, 2007 (Contd.)**

Craft Centre	Craft	Mouza	Gram Panchayat	2001 Population	2001 % SC	2001 % ST	2001 % WPR	2001 % Male WPR	2001 % Female WPR		
Bahin	Terracotta-Pottery-Bamboo	Bahin	Bahin	2251	14.6	-	32.1	48.5	15.1		
Baharail	Bamboo	Baharail	Bishnupur	1092	49.0	6.3	47.5	60.3	34.1		
Naoda	Bamboo	Naoda	Naoda	2856	43.9	5.4	40.7	54.5	25.9		
Anantapur	Dhokra	Anantapur	Anantapur	1605	65.5	0.8	59.5	67.4	51.3		
Dhanakail	DhokraDhankail	Dhankail	2179	82.2	2.4	36.8	56.5	15.8			
Mustafanagar	Terracotta-Pottery-Bamboo	Mustafanagar	Mustafanagar	3695	59.5	21.6	37.9	48.9	25.8		
Hatpara	Terracotta-Pottery-Bamboo	Hatpara	Mustafanagar	1019	58.5	-	44.1	56.3	31.5		
Kunor	Terracotta-Pottery-Bamboo	Kunor	Mustafanagar	3878	22.6	5.8	50.1	57.0	42.4		
Durlabhpur	Dhokra	Purba Durlabhpur	Durlabhpur	1962	16.2	-	44.4	54.5	34.4		
Patirajpur	Dhokra	Patirajpur	Patirajpur	1343	46.4	8.1	43.7	58.7	27.4		
Craft Centre	Mouza	2001 Total Workers	2001 HHI Workers	2001 Other Workers	2001 % Marginal WPR	2001 % Male Marginal WPR	2001 % Female Marginal WPR	2001 Total Agri Workers	2001 Total Non-Agri Workers	2001 % Agri Workers	2001 % Non-Agri Workers
Kalagachh	Bhagabati	3004	65	2186	4.4	4.9	3.9	753	2251	25.1	74.9
Collegepara	Bolhanja	663	49	355	6.7	6.7	6.8	259	404	39.1	60.9
Porabhita	Benikandar	471	3	249	1.7	2.1	1.2	219	252	46.5	53.5
Kachharigachh	Jagatagaon	1651	33	406	4.9	2.7	7.3	1212	439	73.4	26.6
Hariano	Hariano	1104	188	64	10.7	2.4	19.5	852	252	77.2	22.8
Lodhan	Lodhan	1437	255	163	12.7	6.4	19.5	1019	418	70.9	29.1
Sabdhan	Sabdhan	1745	23	396	12.8	5.5	20.2	1326	419	76.0	24.0
Subhasganj	Chapduar	1038	10	445	5.6	2.6	8.9	583	455	56.2	43.8
Bahin	Bahin	722	191	128	5.2	6.2	4.2	403	319	55.8	44.2
Baharail	Baharail	519	1	86	8.6	6.3	11.1	432	87	83.2	16.8
Naoda	Naoda	1161	108	205	3.5	1.6	5.6	848	313	73.0	27.0
Anantapur	Anantapur	955	4	97	26.2	14.1	38.7	854	101	89.4	10.6
Dhankail	Dhankail	801	23	517	4.7	4.6	4.7	261	540	32.6	67.4
Mustafanagar	Mustafanagar	1400	117	224	3.2	1.2	5.3	1059	341	75.6	24.4
Hatpara	Hatpara	449	76	144	5.5	1.6	9.5	229	220	51.0	49.0
Kunor	Kunor	1943	109	443	9.6	3.9	16.0	1391	552	71.6	28.4
Durlabhpur	Purba Durlabhpur	871	55	100	9.6	1.7	17.4	716	155	82.2	17.8
Patirajpur	Patirajpur	587	46	256	2.4	2.9	1.9	285	302	48.6	51.4

Source: Census, 2001

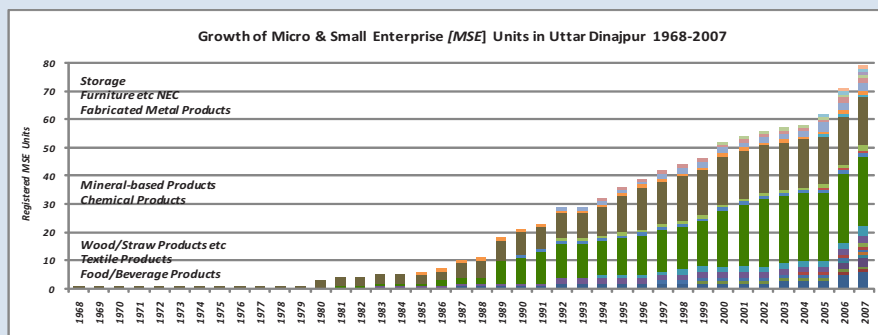
Uttar Dinajpur has been identified as a Group D industrially backward district under the West Bengal State Incentive Scheme, 2007. New industrial units established in the district thus qualify for State capital investment subsidies amounting to 20 percent of fixed capital, a subsidy of 25 percent (30% for MSEs) of interest charges on commercial borrowings for a period of 10 years, a waiver of electricity duty for 5 years (along with 30% subsidy on electricity charges for MSEs), 75 percent reimbursement (80% for MSEs) of employer's EPF and ESI contributions for a period of 10 years, 50 percent reimbursement (75% for MSEs) of stamp duties and land registration charges, as well as 50 percent subsidy (75% for MSEs) on charges incurred for the technological modernisation of plant and equipment. A total of 643 SSI units had been registered in Uttar Dinajpur till September 2007, with nearly 70 percent being concentrated in Raiganj SD. The largest SSI clusters were located in the vicinity of urban Raiganj (275 units) and Kaliaganj (118 units), while another 70 units were located at Karandighi. In the northern region of the district, an industrial cluster with 128 registered SSI units has gradually evolved between Chopra and Islampur blocks. However, Goalpokhar-2 and Goalpokhar-1 in Islampur SD and Hemtabad in Raiganj SD still lag behind the other Uttar Dinajpur blocks in terms of industrial backwardness, with very few SSI units having been established in these blocks. Lower relative settlement densities and higher relative distances from population centres in these blocks to the principal transportation arteries appear to be important causes of this. Micro and small enterprises [MSE] are spread even more unevenly across Uttar Dinajpur, with only 72 units (17%) being located in Islampur SD and 343 units (83%) being concentrated in Raiganj SD. Raiganj and Kaliaganj together thus account for over three fifths of the SSI units as well as close to three-fourths of the MSEs established in Uttar Dinajpur. Although support for establishing new SSI units anywhere in the district is available under the State Incentive Scheme, few units have been established outside the Raiganj-Kaliaganj cluster so far by availing such support.

**Table: Registered SSI & MSE Industrial Units in Uttar Dinajpur, 2007**

CD Block	SSI Unit Registrations upto 30.9.07	% to District	MSE Unit Registrations 2006-07	% to District	Pradhan Mantri Rozgaar Yojana [PMRY] Beneficiaries			SSI Units supported under State Incentive Scheme		
					2004-05	2005-06	2006-07	2004-05	2005-06	2006-07
Chopra	51	7.9	20	4.8	30	30	32	6	2	1
Islampur	77	12.0	24	5.8	31	21	41	-	2	1
Goalpokhar-1	8	1.2	4	1.0	6	2	2	-	1	-
Goalpokhar-2	2	0.3	9	2.2	7	7	14	-	-	-
Karandighi	70	10.9	15	3.6	5	19	23	2	2	-
Raiganj	275	42.8	217	52.3	37	78	69	29	7	11
Hemtabad	13	2.0	20	4.8	11	23	19	1	1	-
Kaliaganj	118	18.4	82	19.8	130	154	62	4	5	4
Itahar	29	4.5	24	5.8	18	Nil	15	1	2	-
<b>Uttar Dinajpur DT</b>	<b>643</b>		<b>415</b>		<b>275</b>	<b>336</b>	<b>277</b>	<b>43</b>	<b>22</b>	<b>17</b>

Source: District Industries Centre [DIC], Uttar Dinajpur





Nevertheless, as the bar chart shows, along with the rapid growth of MSE registrations in Uttar Dinajpur starting from the 1990s, there has also been considerable diversification in their activity spheres. Micro enterprise in the district commenced with the registration of the first bamboo craft and pottery units in the late 1960s, which are now listed under the manufacture of *wood & straw products* etc. and *other mineral based products* under the National Industrial Classification codes of 1998 [NIC98]. Building on the artisanal base of the district, the units in these two large groups have multiplied in number, while diversifying into the manufacture of jute textile and cement products. Meanwhile a large group of primary food processing and milling units has also come onstream, producing mustard oil and pulses along with wheat and rice. Diversification has also taken place at the secondary and tertiary level into the manufacture of chemical products, fabricated steel products, as well as woodcraft and storage units. Thus the process of industrial diversification that Uttar Dinajpur has seen offers ample evidence that a policy of judicious State support to artisanal activities ultimately encourages the proliferation and diversification of economic enterprise into a much wider range of industrial activities. While this process so far has mainly been seen within the Raiganj-Kaliaganj cluster, it can now be widened into several other regions within Uttar Dinajpur that are well-linked by the transportation network.

Of the 293 industrial manufacturing establishments that were functioning in Uttar Dinajpur in 2007, 121 were located in the four municipal towns while 172 were dispersed over the rural areas in the district. While Raiganj block accounted for a little more than a third of the rural establishments, Raiganj municipality held nearly two-thirds of the existing urban industrial establishments in the district. However, although less than 10 percent of the manufacturing establishments qualified for registration under the Factories Act, 25 of these registered factories were located in rural areas and only 3 within municipal limits. Because of the proliferation of tea plantations and BLFs, Chopra accounted for 10 registered factories and 8 unregistered establishments with a total employment of 609, at the relatively high employment and fixed investment scale of 34 workers per unit and Rs.83 lakh per establishment or Rs.2.46 lakh per worker. While Islampur and Goalpokhar-1 followed in sequence in terms of investment and employment scales, because of the proliferation of BLFs and small grower plantations, manufacturing activity through the rest of Uttar Dinajpur was less capital intensive, with fixed investments that were generally well below Rs. 1 lakh per worker. Since the labour intensity of manufacturing activities was particularly high in urban Raiganj, each industrial unit there employed an average of 21 workers. Thus the average worker employment at each manufacturing establishment in Raiganj municipality was higher than that of any other establishment anywhere in Uttar Dinajpur, with the exception of those located at Chopra. While manufacturing establishments at Goalpokhar-1, Goalpokhar-2, Karandighi, Hemtabad and urban Kaliaganj absorbed a distinctly low average of workers per unit, most other rural establishments outside the tea region absorbed between 10-12 workers per unit.

**Table: Registered & Unregistered Manufacturing Establishments in Uttar Dinajpur, 2007**

CD Block	Total Industrial Establishments	Registered Factories	Unregistered Manufacturing Establishments	Initial Value of Plant & Machinery in Rs.lakh	Total Employment	Average Workers per Establishment	Average Fixed Investment in Rs.lakh per Establishment	Average Fixed Investment Rs. lakh per Worker
Chopra	18	10	8	1498.04	609	34	83.22	2.46
Islampur	14	4	10	436.19	231	17	31.16	1.89
Goalpokhar-1	3	1	2	27.00	24	8	9.00	1.13
Goalpokhar-2	6	-	6	18.00	35	6	3.00	0.51
Karandighi	8	-	8	15.00	32	4	1.88	0.47
Raiganj	61	5	56	617.11	654	11	10.12	0.94
Hemtabad	16	-	16	34.00	54	3	2.13	0.63
Kaliaganj	27	4	23	217.00	261	10	8.04	0.83
Itahar	19	1	18	134.14	220	12	7.06	0.61
Uttar Dinajpur Rural	172	25	147	2996.48	2120	12	17.42	1.41
Islampur M	3	1	2	48.00	38	13	16.00	1.26
Dalkhola M	4	2	2	30.00	72	18	7.50	0.42
Raiganj M	76	-	76	231.36	2125	28	3.04	0.11
Nachhratpur	-	-	-	-	-	-	-	-
Kasba CT	-	-	-	-	-	-	-	-
Kaliaganj M	38	-	38	127.00	273	7	3.34	0.47
Uttar Dinajpur Urban	121	3	118	436.36	2508	21	3.61	0.17
<b>Uttar Dinajpur DT</b>	<b>293</b>	<b>28</b>	<b>265</b>	<b>3432.84</b>	<b>4628</b>	<b>16</b>	<b>11.72</b>	<b>0.74</b>

Source: District Industries Centre [DIC], Uttar Dinajpur

MAP: Industrial Diversification in Uttar Dinajpur, 2007

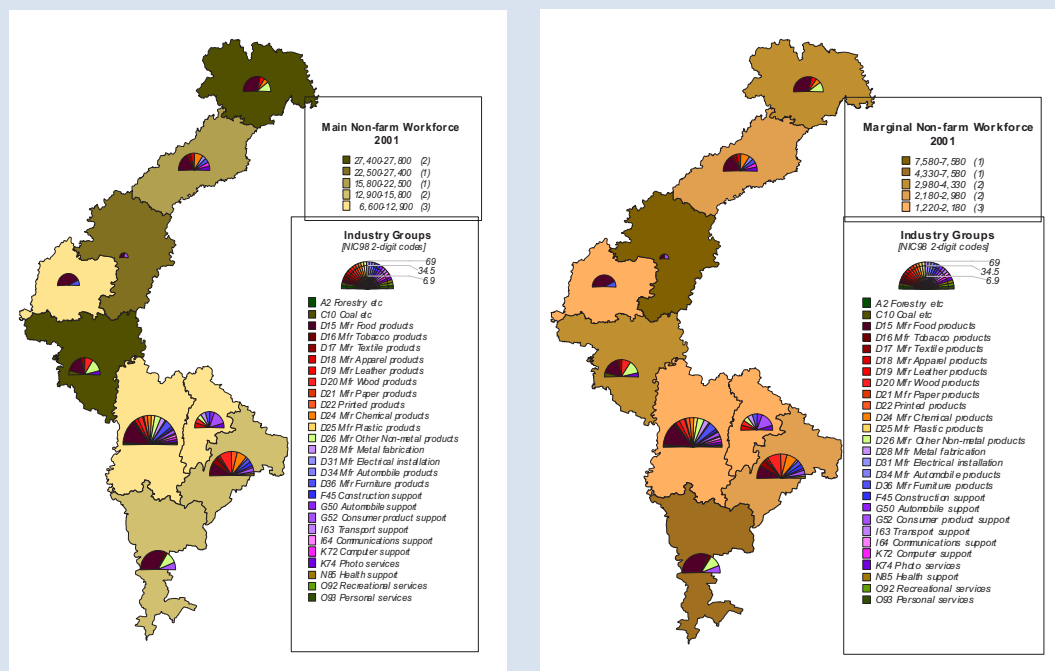


CHART: Present Industrial Landscape in Uttar Dinajpur

CD BLOCK/URBAN CENTRE	PRINCIPAL INDUSTRIAL ACTIVITIES
CHOPRA	Rice milling, Bread, Biscuits, Tea NEC, Spices processed, Animal Hides, Agarbatti, Bricks non-ceramic, RCC Pipes, Concrete products
ISLAMPUR	Mustard oil crushing, Mustard oilcake, Ice-cream, Rice milling, Dal milling, Tea NEC, Printing materials, Washing soap, Battery reconditioning, Wooden furniture & fixtures, Maintenance & repair services, Photocopying
ISLAMPUR M	Rice milling, Apparel, Wooden furniture & fixtures
GOALPOKHAR-1	Biscuits, Household Electricals repair
GOALPOKHAR-2	Mustard oil crushing, Mustard oilcake, Rice beaten, Tea NEC, Wooden furniture & fixtures
KARANDIGHI	Coke briquette, Mustard oil crushing, Mustard oilcake, Ice-cream, Rice milling, Cloth embroidery, Plywood, Woodwork, Cement floor-tiles, RCC Pipes, Concrete products, Photocopying
DALKHOLA M	Ice-cream, Woodwork, Cement floor-tiles, Concrete products
RAIGANJ	Fish meal, Mustard oil crushing, Mustard oilcake, Flour milling, Ice-cream, Rice milling, Cattle feed, Poultry feed, Other Animal feed, Bread, Biscuits, Sewai, Papad, Food products, Ice slab, Chewing Tobacco, Cloth embroidery, Timber sawn, Plywood, Plywood blockboard, Particle board, DTP, Other printing, Synthetic resin, Plastic basket, Plastic connector, Plastic furniture, Pottery articles, Bricks non-ceramic, Concrete products, Steel fabrication, Agricultural implements, Aluminium utensils, Automobile body-work, Wooden furniture & fixtures, Steel furniture, Silver jewellery, Motor vehicle repair, Data-processing, Cold storage, Weighbridge, Software development, Photocopying

<b>RAIGANJ M</b>	Leaf plates sal, Coke briquette, Mustard oil crushing, Mustard oilcake, Flour milling, Wheat broken, Lozenges, Food products, Cloth embroidery, Leather bags, Other bags, Chappals leather, Timber sawn, Plywood, Corrugated Paper box, DTP, Printing materials, Ayurvedic medicine, Washing soap, Rickshaw body-work, Plastic furniture, Cement floor-tiles, Steel fabrication, Wire nails, Wooden furniture & fixtures, Steel furniture, Steel fastenings, Wax candles, Decorative painting, Industrial Services, Transformer repair, Motor vehicle repair, Data-processing, Cycle repair, Household Electricals repair, STD/ISD booth, Internet café, Software development, Maintenance & repair services, Studio B&W, Photocopying, Clinical lab, Videophotography, Hairdressing
<b>HEMTABAD</b>	Apparel, Bamboo craft, Concrete products, Steel fabrication, Silver jewellery, Motorcycle repair, Data-processing, TV repair & servicing, Cycle repair, Photocopying
<b>KALIAGANJ</b>	Mustard oil crushing, Mustard oilcake, Flour milling, Rice milling, Dal milling, Spices processed, Saree cotton, Plywood, Plywood blockboard, Plywood products, Woodwork, Bamboo craft, Printing materials, Reducer organic, Synthetic resin, Thinner, Wooden furniture & fixtures, Steel furniture, Industrial Services, Transformer repair, Motor vehicle repair, TV repair & servicing, Clinical lab
<b>KALIAGANJ M</b>	Mustard oil crushing, Mustard oilcake, Flour milling, Rice milling, Dal milling, Spices processed, Jute twine, Cloth embroidery, Apparel, Other bags, Timber sawn, Woodwork, Bamboo craft, DTP, Other printing, Washing soap, Steel fabrication, Industrial Services, Data-processing, TV repair & servicing, Weighbridge, Videophotography
<b>ITAHAR</b>	Mustard oil crushing, Mustard oilcake, Ice-cream, Flour milling, Ice-cream, Bread, Biscuits, Spices processed, Ice slab, Beedi making, Bricks non-ceramic, RCC Pipes, Concrete products, Watch repairing, Cycle repairing

Source: District Industries Centre [DIC], Uttar Dinajpur

As seen in the associated regional maps, the Islampur SD blocks with the exception of Goalpokhar-2 accounted for a much larger proportion of main workers engaged in non-agricultural employment in Uttar Dinajpur, with Chopra and Karandighi each accounting for more than 0.27 lakh main workers in this category. The presence of marginal workers engaged in non-agricultural employment was distributed more evenly across the Uttar Dinajpur blocks. However, while industrial manufacturing activities in the Islampur SD blocks as well as Itahar were more focused towards the primary manufacture of processed food products, etc., those in Raiganj, Kaliaganj and Hemtabad were highly diversified, with much more activity taking place in secondary and tertiary manufacture and services. In terms of capital-size and employment, the northern blocks of Chopra and Islampur would appear to be more advantageously placed compared to the other blocks, it needs to be remembered that manufacturing activity based on the primary processing of tea in these blocks also involved the commitment of a large tract of land to the cultivation of tea, foregoing other forms of agriculture. Thus the engagement of non-farm workers in the manufacturing process in the tea region also involved the displacement of other workers from agricultural livelihoods, which was not the case in the non-tea blocks of Uttar Dinajpur where industrial activities had widened employment opportunities overall. High engagement of workers in urban and rural Raiganj at relatively low investment cost would point to better industrial efficiencies in the Raiganj region. With time, this has led to the wider degree of industrial proliferation and diversification seen in this region. Since manufacturing activities in most other parts of the district generally involved higher degrees of capital investment per worker, this hindered the process of industrial dispersal and diversification through the rest of the district.

Although industrial enterprise now has a visible presence within Uttar Dinajpur, the vast majority of registered manufacturing establishments are relatively small units run on low investment and employment scales. Only one medium scale State corporation exists in the district, namely the West Dinajpur Spinning Mills Ltd which was established at Bogram near Raiganj as a statutory corporation in 1975, at the commencement of the Fifth Five-Year Plan, It was envisaged at the time that this unit which currently has 835 employees would support the handloom weaving industry located in the Gangarampur region of the

undivided district. However because of constant difficulties in marketing its yarn, the spinning mill was running a perpetual loss and had accumulated a total debt of over Rs. 76 crore by the year 2007 on its total paid-up capital of Rs.8.89 crore. On the annual turnover of Rs.16.32 crore that year, the operating loss amounted to Rs.7.57 crore. Thus in 2008, the State Government decided to dilute its equity stake in the spinning mill to the level of 26 percent, and has since put it up before the Public Enterprises & Industrial Reconstruction [PEIR] Department so that a suitable private partner can be found. While this matter is still awaiting a satisfactory conclusion because of the high scale of the investment involved, the SSI and MSE sectors in Uttar Dinajpur have shown more promising results in recent years. The district has one commercial estate under the West Bengal Industrial Development Corporation [WBIDC] at Mohanbari near Raiganj, in addition to which another industrial estate specialising in leather processing has been established in 2008 at Panjipara in Goalpokhar-1 block which will utilise the animal hides that the district produces in abundance. Two more industrial estates to be established by the West Bengal Small Industries Development Corporation [WBSIDC] have been proposed for the district, which will be located at Iluabari near Islampur and at Itahar. Along with the Iluabari complex, another industrial estate at Kaliaganj will specialise in making diversified jute products. The establishment of these estates will go a long way in evening out the existing industrial disparities in the district.

### NREGA in Uttar Dinajpur

Uttar Dinajpur was among the 200 Indian districts where the first phase of the National Rural Employment Guarantee Scheme [NREGS] was initially launched in February 2006, under the terms set in the National Rural Employment Guarantee Act [NREGA] of 2005. As a flagship rural employment intervention programme of the Government, job creation under NREGS holds critical significance for Uttar Dinajpur district where there is presently a gross mismatch between the size of the rural workforce and the available opportunities for regular rural wage-work. However although NREGS has now entered in its fourth year of implementation in the district and Uttar Dinajpur ranks 13<sup>th</sup> among the West Bengal districts in terms of the issuance of NREGS jobcards with over 4.31 lakh jobcards being issued till June 2009, it ranks 17<sup>th</sup> in terms of the total persondays of rural employment that have been generated under NREGS. While Uttar Dinajpur thus appears to have lagged behind in the implementation of the scheme, the West Bengal districts that joined NREGS subsequently after the implementation of its second phase now stand well ahead of Uttar Dinajpur in overall performance.

**Table: Comparative NREGS Performance in Uttar Dinajpur, West Bengal & India, 2008-09**

NREGS Performance Indicator	Uttar Dinajpur	West Bengal	All India
Total Rural Households provided Employment [lakh]	0.57	30.26	449.0
Total Employment [lakh persondays]	13.71	786.61	21610
Employment provided to SCs [lakh persondays]	6.21	294.55	6343
Employment provided to STs [lakh persondays]	1.23	116.53	5481
Employment provided to Women [lakh persondays]	5.03	208.66	10342
Employment provided to Other Persons [lakh persondays]	6.27	375.52	9786
<i>Employment provided to SCs [%]</i>	45.3	37.4	29.4
<i>Employment provided to STs [%]</i>	9.0	14.8	25.4
<i>Employment provided to Women [%]</i>	36.7	26.5	47.9
<i>Employment provided to Other Persons [%]</i>	45.7	47.7	45.3
Total NREGS Fund [Rs.crore]	31.10	1279.19	na
Total NREGS Expenditure [Rs.crore]	16.57	940.38	na
NREGS Works completed [thousand]	1.24	54.53	1209
NREGS Works in progress [thousand]	0.18	45.54	1511
Total NREGS Works [thousand]	1.42	100.01	2720

Source: Department of Rural Development, Ministry of Rural Development, Gol

With 4.31 lakh poor rural households having registered under NREGS in the district, Uttar Dinajpur provided employment to 0.57 lakh households at an average of 24 persondays per household in 2008-09. The corresponding averages at state and national level were 26 persondays per household for West Bengal and 48 persondays per household for India as a whole. SC and ST households respectively accounted for under 30 percent and under 5 percent of the total jobcard registrations in Uttar Dinajpur. However, more than 45 percent of the total persondays generated under NREGS in the district accrued to SC beneficiaries and another 9 percent to ST beneficiaries. While this would suggest that NREGS activities have a relatively better outreach in SC and ST dominated areas in Uttar Dinajpur, it also implies that NREGS has failed to outreach adequately to other wage-worker communities, especially the Muslims, who collectively accounted for 50.4 percent of the total jobcard registrations under NREGS in Uttar Dinajpur till June 2009, but received less than 46 percent of the total persondays of employment generated under NREGS in the district. The low district average of 24 persondays of employment per rural household that has been provided employment under NREGS also reflects the gap in NREGS outreach to the other communities. Since the West Bengal average for persondays generated per working NREGS household are also well below the corresponding national average, it is apparent that the implementation of NREGS in Uttar Dinajpur and West Bengal is too closely focused on the employment benefits that would accrue to SC and ST jobcard holders, thus failing to adequately reach other potential beneficiary groups, including women.

Besides, providing wage-work according to work demand by rural job-card holders, NREGS also aims at multiplying the productive assets of the rural communities through *conservation works* including afforestation and the excavation and rejuvenation of waterbodies, *micro irrigation works* like the digging of canals, *land development works* including land leveling, *flood protection works* through the improvement of drainage and protective embankments, *rural connectivity works* through the building or upgradation of roads, etc. Since the ratio of NREGS works-in-progress to total NREGS works is well below the national average of 56 percent in both Uttar Dinajpur (12.4%) and West Bengal (45.5%), this indicates that the current inadequacies in implementing NREGS and in providing higher employment coverage to jobcard holders in the district are related to low work demands as well as the general insufficiency of new works. Under current guidelines, new works under NREGS can only be implemented if at least 50 NREGS workers are available for undertaking the new works and if these workers cannot be accommodated in other ongoing works. Accordingly, since the planning of new NREGS works suffers from higher uncertainties, there is an inbuilt tendency to continue existing works while absorbing new labour to the extent possible. This has given NREGS in Uttar Dinajpur a supply driven character, instead of making it a demand driven scheme as was originally intended. The same issue has also been raised by several recent reviews of the implementation of NREGS across the country, which point out that the scheme implementation is unnecessarily bureaucratized to the extent that it kills the initiatives required in planning new works.

Disaggregated NREGS performance data for the year 2007-08 reveal that the regional impact of NREGS in Uttar Dinajpur has been highly uneven. While jobcard registrations are relatively well distributed across the Uttar Dinajpur blocks and reflect the distribution of the district population across these blocks, both NREGS work demand and work provision is particularly low in the northern blocks of Chopra, Islampur, Goalpokhar-1 and Goalpokhar-2, compared to Karandighi and the southern blocks of Raiganj SD. Although the reported work demand from households relative to jobcard registrations is low in all blocks, work provision has fallen short of work demand in most blocks except all blocks except Goalpokhar-1 and Goalpokhar-2 and in Kaliaganj where in fact the number of households provided wage employment under NREGS exceeds the reported number of households which had sought work. In the same block, the proportion of women to whom NREGS employment was provided was also the lowest among all blocks in Uttar Dinajpur

**Table: NREGS Beneficiaries in Uttar Dinajpur, 2007-2008**

CD Block	Jobcards issued to SC Households	Jobcards issued to ST Households	Jobcards issued to Other Households	Total Jobcards issued to Households	Total Households seeking Work	Total Households provided Work	Individuals provided Work	Women provided Work	House holds provided 100 days Work
Chopra	5785	1555	38346	45686	250	94	94	22	-
Islampur	4297	697	36814	41808	27	26	48	21	-
Goalpokhar-1	5774	1108	45841	52723	28	28	28	-	-
Goalpokhar-2	10659	2369	27687	40715	69	69	101	21	-
Karandighi	13250	2992	33183	49425	1139	521	709	186	-
Raiganj	27433	3875	33951	65259	842	840	1071	273	-
Hemtabad	8794	1060	16357	26211	1222	1186	1429	336	-
Kaliaganj	26273	2087	11312	39672	3557	5133	5377	761	-
Itahar	13432	4229	32230	49891	991	974	1262	283	-
<b>Uttar Dinajpur Rural</b>	<b>115697</b>	<b>19972</b>	<b>275721</b>	<b>411390</b>	<b>8125</b>	<b>8871</b>	<b>10119</b>	<b>1903</b>	<b>-</b>

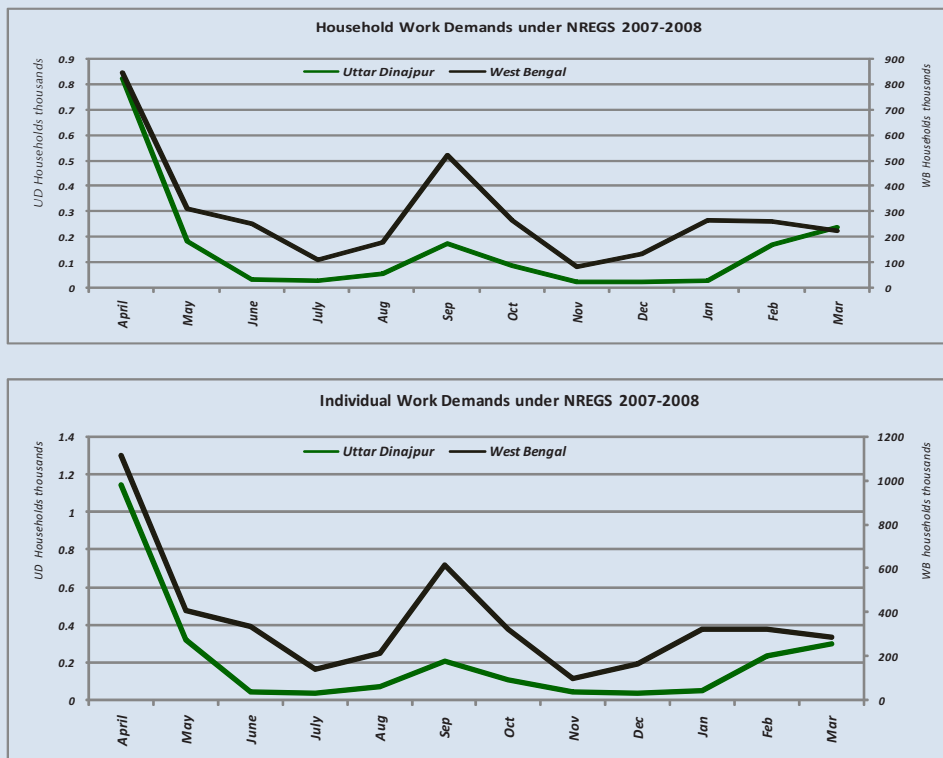
Source: Department of Rural Development, Ministry of Rural Development, GoI

In keeping with the regional distribution of NREGS beneficiary households, the four northern blocks in Islampur SD accounted for 2.5 percent of the 8808 households that were provided employment under NREGS and 3.3 percent of the total NREGS persondays generated in Uttar Dinajpur that year. NREGS activities thus remained firmly focused on Karandighi and the Raiganj SD blocks, and particularly within Kaliaganj which singly accounted for 54 percent of the total persondays generated under NREGS as well as 58 percent of the households that received NREGS employment. The difference in the two percentage proportions however also indicates that average employment durations were shorter in Kaliaganj block than in blocks like Karandighi, Raiganj, Islampur, etc. Women NREGS beneficiaries however generally worked for shorter durations than men in most Uttar Dinajpur blocks.

**Table: NREGS Employment Generated in Uttar Dinajpur, 2007-2008**

CD Block	SC Households provided Work	ST Households provided Work	Other Households provided Work	Total Households provided Work	SC Person-days	ST Person-days	Others Person-days	Total Person-days	Women Person-days	Patta/ IAY Beneficiaries Person-days	Disabled Individuals Person-days
Chopra	6	-	88	94	48	-	631	679	136	1	-
Islampur	-	-	26	26	-	-	864	864	378	-	-
Goalpokhar-1	-	-	28	28	-	-	93	93	-	-	-
Goalpokhar-2	2	-	67	69	20	-	783	803	164	2	-
Karandighi	68	37	404	509	1059	529	4726	6314	1682	58	1
Raiganj	398	4	430	832	4017	48	4227	8292	2055	706	36
Hemtabad	607	43	536	1186	3608	254	3780	7642	1819	198	63
Kaliaganj	3364	123	1603	5090	23957	749	14844	39550	5280	1622	260
Itahar	155	5	814	974	789	27	8730	9546	1625	91	17
<b>Uttar Dinajpur Rural</b>	<b>4600</b>	<b>212</b>	<b>3996</b>	<b>8808</b>	<b>33498</b>	<b>1607</b>	<b>38678</b>	<b>73783</b>	<b>13139</b>	<b>2678</b>	<b>377</b>

Source: Department of Rural Development, Ministry of Rural Development, GoI



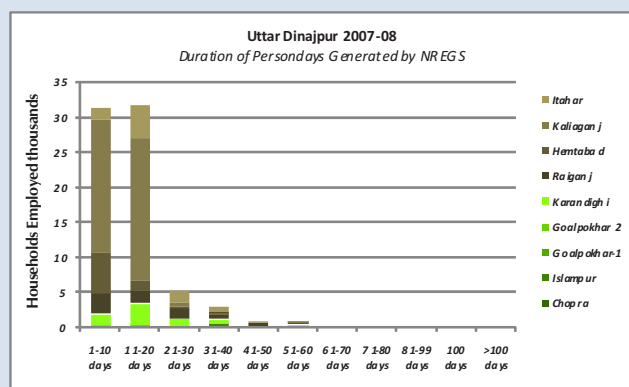
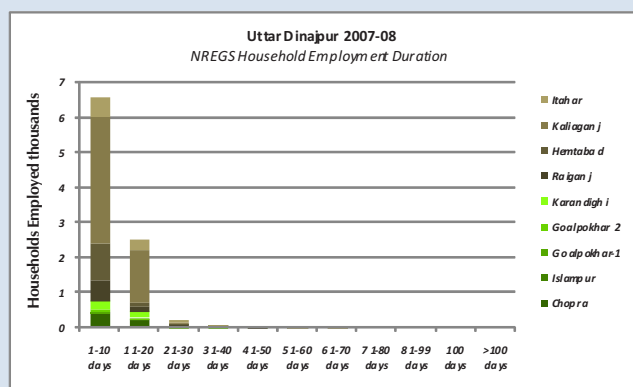
Comparisons between the seasonal demand for NREGS employment in Uttar Dinajpur and West Bengal throw up interesting contrasts. In both the district and the state, peak demands for work occur in the month of April, following which there is a sharp dip in work demands. However, the dip is much stronger in Uttar Dinajpur until it bottoms out in June and July. Aggregate NREGS work demands in West Bengal decline more slowly between May and July, and then rise to another seasonal peak in September. While the September peak is present in Uttar Dinajpur, its relative magnitude is weak. Another divergence between work demands in the state and the district is witnessed between autumn and winter. While in Uttar Dinajpur, NREGS work demands remain slack between November and January, they begin to climb again in West Bengal after November and level out between January and February. In Uttar Dinajpur, NREGS work demand begins to rise after January, gradually narrowing the relative gap, until in April, peak demands occur again. Importantly, although the seasonal trends are broadly coincident between Uttar Dinajpur and West Bengal, the relative demand for NREGS employment is higher in West Bengal than in Uttar Dinajpur for a significant part of the year. Primarily because of this, NREGS performance in Uttar Dinajpur is relatively weak compared to NREGS performance in the state.



Table: NREGS Employment Durations in Uttar Dinajpur, 2007-2008

	1-10 days	11-20 days	21-30 days	31-40 days	41-50 days	51-60 days	61-70 days	71-80 days	81-99 days	100 days	> 100 days
<b>Households Employed</b>											
Chopra	439	240	-	-	-	-	-	-	-	-	-
Islampur	-	8	-	14	-	4	-	-	-	-	-
Goalpokhar-1	28	-	-	-	-	-	-	-	-	-	-
Goalpokhar-2	43	16	5	3	2	-	-	-	-	-	-
Karandighi	246	203	43	14	-	3	-	-	-	-	-
Raiganj	592	131	62	28	12	6	1	-	-	-	-
Hemtabad	1052	122	12	-	-	-	-	-	-	-	-
Kaliaganj	3585	1484	20	1	-	-	-	-	-	-	-
Itahar	558	312	70	24	7	2	1	-	-	-	-
<b>Uttar Dinajpur Rural</b>	<b>6543</b>	<b>2516</b>	<b>212</b>	<b>84</b>	<b>21</b>	<b>15</b>	<b>2</b>	-	-	-	-
<b>Person-days Generated</b>											
Chopra	20	-	-	-	-	-	-	-	-	-	-
Islampur	-	144	-	504	-	216	-	-	-	-	-
Goalpokhar-1	93	-	-	-	-	-	-	-	-	-	-
Goalpokhar-2	255	233	119	105	91	-	-	-	-	-	-
Karandighi	1498	3022	1107	507	-	180	-	-	-	-	-
Raiganj	3053	1758	1553	996	535	333	64	-	-	-	-
Hemtabad	5824	1544	274	-	-	-	-	-	-	-	-
Kaliaganj	18768	20274	477	31	-	-	-	-	-	-	-
Itahar	1815	4673	1742	829	307	116	64	-	-	-	-
<b>Uttar Dinajpur Rural</b>	<b>31326</b>	<b>31648</b>	<b>5272</b>	<b>2972</b>	<b>933</b>	<b>845</b>	<b>128</b>	-	-	-	-

Source: Department of Rural Development, Ministry of Rural Development, GoI

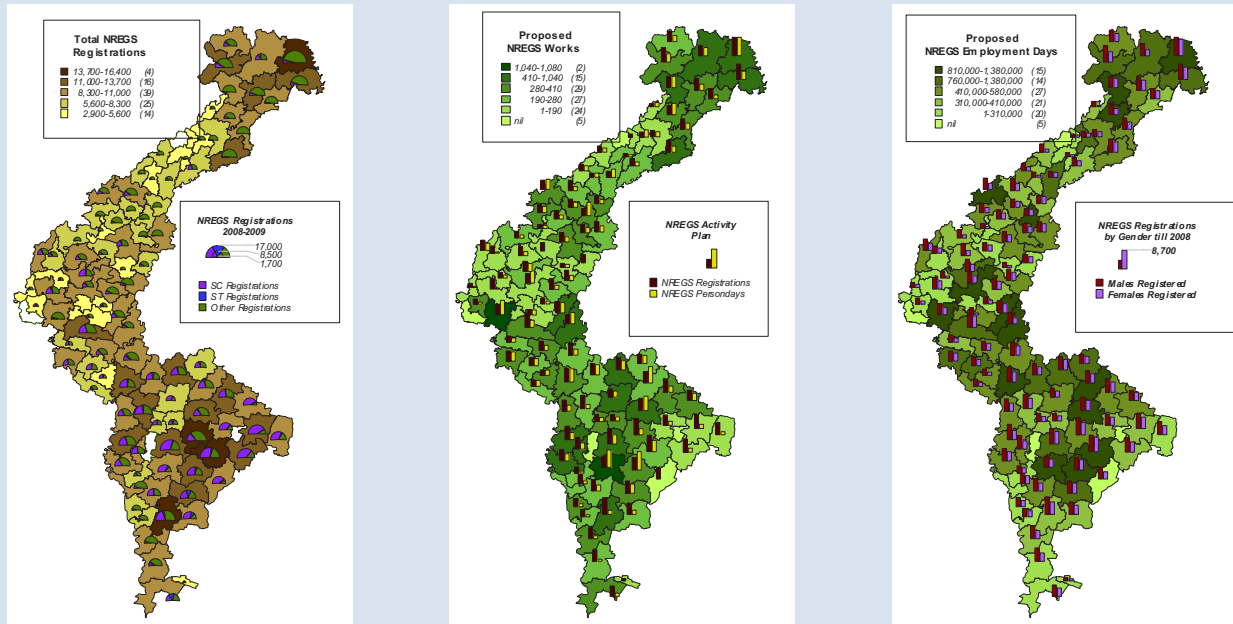


Another reason for the comparatively slack performance of NREGS in Uttar Dinajpur relates to the duration for which NREGS employment is provided in different parts of the district. Nearly 70 percent of the households that were provided NREGS work in Uttar Dinajpur in 2007-08, were provided between 1-10 days of employment. Since another 27 percent secured between 11-20 days of work, less than 4 percent of the households seeking NREGS work in Uttar Dinajpur secure employment for durations longer than 20 days. Nevertheless, in blocks like Karandighi, Raiganj and Kaliaganj, the average duration of NREGS employment was more widely dispersed over different time categories. The range of dispersion of NREGS employment in terms of person-days generated was even wider in these three blocks, with 57 percent of the households securing employment for durations of 11 person-days or longer at a stretch, while 14 percent secured 21 or more person-days of NREGS employment. Since some Uttar Dinajpur blocks have obviously performed better than others, the reasons behind the varying regional performance of NREGS in Uttar Dinajpur therefore need to be properly probed.

In June, 2009, 78 of the 98 Gram Panchayats [GPs] in Uttar Dinajpur reported no ongoing NREGS activities. Thus NREGA activities were currently being implemented in only 20 GPs, 6 of which were located in Karandighi, 4 in Hemtabad, 3 in Kaliaganj, 2 in Itahar, while only 1 GP each was active in the five remaining blocks in Uttar Dinajpur. Among its 59 GPs, Islampur SD thus had 10 active GPs and 49 inactive GPs, while Raiganj SD with 39 GPs had 10 active and 29 inactive GPs. While 175 NREGS works had been executed by the Uttar Dinajpur GPs through the year 2008-09, only 61 of these works were implemented in Islampur SD, of which 51 were implemented in the Karandighi GPs. In contrast, 114 NREGS works were executed by the GPs in Raiganj SD, of which 44 works were implemented in Kaliaganj. The regional anomalies in NREGS performance in Uttar Dinajpur are thus closely related to the distribution of NREGS works across GPs. Issues like low work demands, low NREGS employment generation and the inability to provide registered NREGS jobcard holders with the statutory 100 days of work all arise in Uttar Dinajpur because of the paucity of current NREGS work-schemes. Of the 111 NREGS works in progress in Uttar Dinajpur through 2008-09, as many as 68 were rural connectivity works involving road building, 19 were water conservation works and 10 involved the rejuvenation of existing waterbodies. Another 10 of the 21 NREGS works completed that year and 23 of the NREGS works on shelf also involved rural connectivity. While no irrigation related works were either ongoing or on shelf, flood control and drought proofing works also had token presence, with almost single-minded emphasis being placed on road-building activities. More than 80 percent of the completed rural connectivity works, and close to 95 percent of the current rural connectivity works in progress and on shelf, were located in Karandighi and the four Islampur SD blocks, implying an obviously strong regional bias in the implementation of NREGS in Uttar Dinajpur. The largescale exclusion of the Islampur SD GPs from NREGS implementation has greatly limited the impact of NREGS in the district.

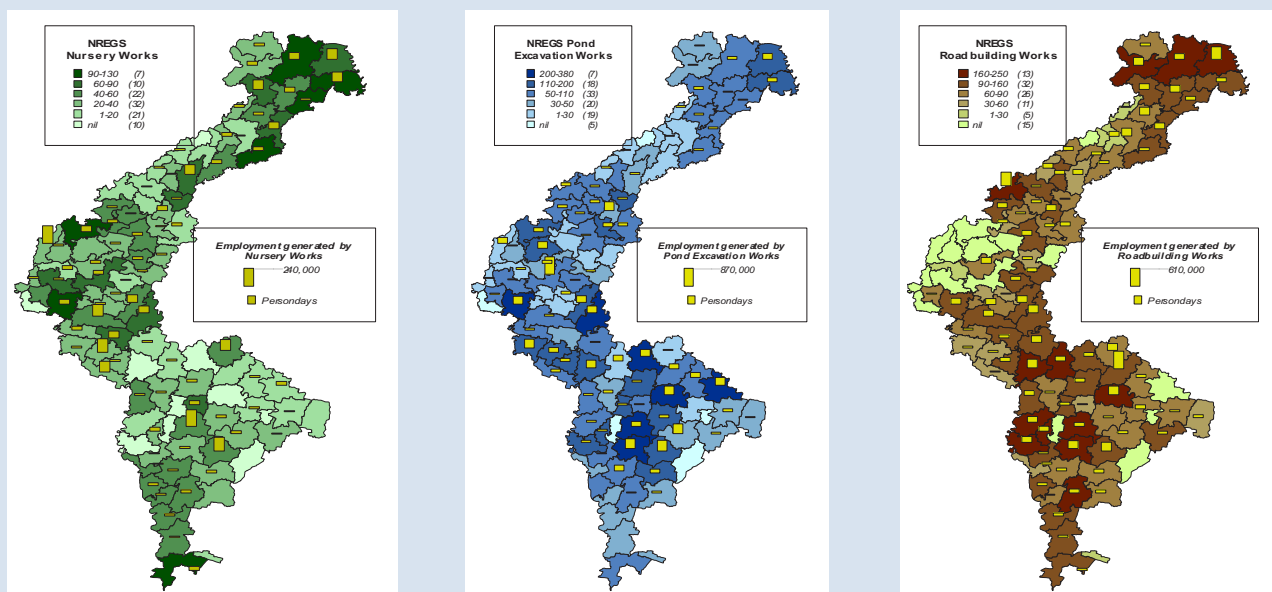
During 2007-07, i.e. the first year of implementation of NREGS in Uttar Dinajpur, a slew of NREGS activities involving plant nurseries, pond excavation, road-building, building construction and other works had been proposed by the GPs in Uttar Dinajpur for inclusion in the consolidated NREGS perspective plan for the district. These involved 2171 works to be taken up by the Panchayat Samities and another 28,994 works to be undertaken at the Uttar Dinajpur GPs. Nearly 29 percent of these potential NREGS works involved water conservation and 32 percent involved rural connectivity, while the rest of the proposals were split up between afforestation, building construction and other activities. Analysis of these NREGS proposals that are still to be implemented reveals the potential for conducting a wide range of NREGS works across Uttar Dinajpur.

MAP: NREGS in Uttar Dinajpur District

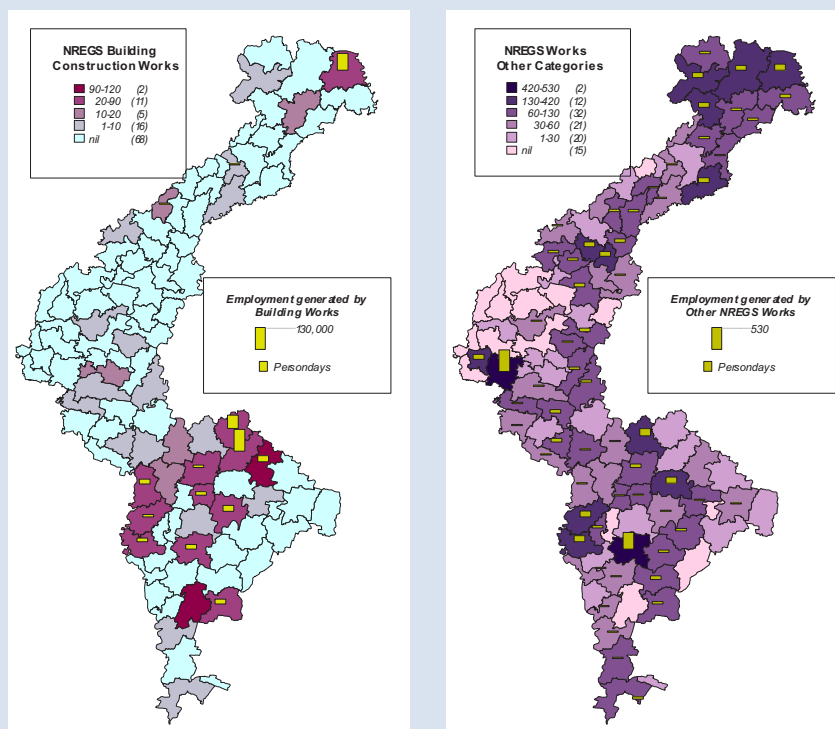


A picture of the real potential for implementing NREGS in Uttar Dinajpur is thus revealed in the associated GP level regional maps. Actual NREGS jobcard registrations so far are concentrated principally in the Chopra and Kaliaganj-Hemtabad-Raiganj regions, and begin to dwindle in the Itahar and Karandighi GPs. In Islampur and through significant parts of Goalpokhar-1 and Goalpokhar-2, NREGS registrations are remarkably thin. Significant differences also exist in the social composition of NREGS jobcard registrations between the two main regions of concentration. While in the Chopra GPs, the proportion of SC and ST registrations is low and other social groups dominate NREGS registrations, the southern GPs where NREGS registration has been high have large concentrations of SC groups.

MAP: Potential Nursery, Pond Excavation & Road-building Works under NREGS in Uttar Dinajpur



**MAP: Potential Building Construction & Other Works under NREGS in Uttar Dinajpur**



Although the distribution of potential NREGS works is broadly reflected in the regional patterns of NREGS registrations, the works suggested are distributed more evenly across the most of the district, except for a few thinner patches in Islampur, Goalpokhar-2 and Kaliaganj blocks. The potential employment that can be generated through these NREGS activities has broad conformity with the regional distribution of NREGS registrations, except in a few thinner patches in Islampur, Goalpokhar-2 and Kaliaganj blocks where the paucity of possible NREGS works leads to potentially low employment creation, when compared to the number of NREGS registrations that have taken place. The potential for NREGS employment is distributed across the entire district, with regions of high and low concentration in almost every block. Actual male registrations under NREGS are generally a little higher than the registration of females. However, in several GPs of Muslim-dominated Islampur and Goalpokhar-1, Goalpokhar-2 and Itahar, both male and female registrations have been low even though the males stay well ahead of the females. The Muslim dominated blocks form a composite region from which periodic male outmigration outside the district has been the highest. As a result, the current levels of work demand are low in some GPs within this area.

While the potential to undertake nursery works under NREGS is confined largely to the terai GPs in Chopra and Islampur as well as to some extent in Goalpokhar-2 and Karandighi, the potential to undertake pond excavation works is spread widely across the length of the district, with particularly strong concentration in the southern GPs covering Hemtabad and Raiganj blocks. Since the strength of agriculture in the district has been built on the access to irrigation, the regional concentration of NREGS proposals for such water conservation works indicate the presence of a strongly felt need to diversify surface water access in this intensively cultivated region. The potential for undertaking NREGS rural connectivity works is also spread widely across the district, with high concentration in the Chopra and Raiganj GPs. The patterns of rural connectivity that can potentially be created in Uttar Dinajpur through such NREGS road-building works illustrates the strong need for establishing better economic and infrastructural inter-linkages between rural areas across the entire district, without which the economic potential of Uttar Dinajpur remains unexplored. In contrast, proposals for building construction works under NREGS are confined to a relatively narrow

band of GPs in Raiganj, Hemtabad and Itahar. This would indicate that NREGS has created strong rural development aspirations in this region, which is already relatively better served by infrastructure. Elsewhere through the district, the building of basic infrastructure such as rural roads is a more pressing necessity. Miscellaneous NREGS works of a type not included in the former categories have been proposed for GPs across the entire length of the district. In Islampur SD, these NREGS potentials mainly emanate from the difficult area along the international border where economic activity and livelihood opportunities are severely constrained. Since many of these proposals in Raiganj SD serve the hinter-land surrounding the district headquarters, they may be seen as a way of improving livelihood equity in the region which already attracts a large stream of immigration because of its higher levels of socio-economic and agricultural development.

Although the performance of NREGS so far in Uttar Dinajpur district has been relatively weak, this weakness thus essentially stems from the insufficiency of approved NREGS works and the limited spread of NREGS across the 98 GPs of the district. The need to change this is very strong, as indicated by the spread of NREGS works proposals across the entire district. However the process of approval and enlistment of NREGS works is too cumbersome to serve the livelihood needs that exist across the rural areas of Uttar Dinajpur, and presently deprives a considerable part of the district of equitable rural employment support. It needs to be appreciated that a rural intervention programme of scale and complexity of NREGS cannot be planned centrally at either the national or state capitals or at the respective district headquarters. Since the NREGS works must serve local communities and must be carried out with local human capital resources and local information on local public lands, it is evident NREGS activities would be best executed within a decentralised framework that empowers the local panchayats to formulate and supervise their own asset building and employment generation needs.

#### **BOX TEXT**

##### **SMALL TEA PLANTATIONS IN UTTAR DINAJPUR**

Pineapple growers in Uttar Dinajpur began to switch over to tea cultivation in the late 1980s and 1990s. Chopra, where around 4-5 large tea estates had already existed since pre-Independence times, is thus considered the birthplace of small tea plantations. Settlement in Chopra had begun to expand following the transfer of territories from Bihar to West Bengal in 1956 and post-Partition migration. Migrant farmers who resettled in the region found the land to be of inferior quality and their landholdings to be small and uneconomic. The cultivation of pineapples was therefore introduced as an alternative model of commercial farming at the end of the 1950s. By the early 1980s pineapple cultivation had spread over a vast area, and a marketing crisis ensued. Being highly perishable, table-ready pineapples cannot be kept in storage and have to be transported immediately over long distances. Most of the pineapples produced in Uttar Dinajpur had to reach distant markets in cities like Delhi, Kanpur, Agra, Nagpur and Kolkata. This involved an army of middlemen, each of whom took a cut out of the profits imposing a high burden of transactions costs on the pineapple farmers without an assured return. These adverse conditions gradually persuaded pineapple farmers to look for an alternative product. Finally, during the tea boom in the 1980s, pineapple farmers began to switch over experimentally to the growing of tea. By 2003, small tea plantations and bought leaf factories [BLFs] the North Bengal Terai and Duars were already producing nearly a fifth of the total processed tea produced within the region. While the number of BLFs had expanded to 62 in 2003 from 28 in 1999, production of tea by small growers in the region had risen from 13.1 million kg to 36.5 million kg over the same period.

During the initial phase of development of small tea plantations in North Bengal, problems had arisen because of the purchase or leasing of agricultural land by the agents of big corporate tea companies, under the nomenclature of *project tea gardens*. Besides high lands or *dangis* which were unsuitable for agriculture, agricultural lowlands or *nichanparas* were also sold to the corporate tea companies on the assurance that the farming households that transferred such land would be provided regular employment on the new tea gardens at the rate of one job for every hectare of land that was transferred. The deep trenches that were cut

to drain the new plantations also lowered the water table in surrounding farmlands, forcing other farmers to sell or transfer their holdings. In a chain reaction, the switchover from farming to tea gradually affected a longitudinal region stretching from the Daspara area in Chopra block upto Patagora in Islampur. As wet rice cultivation was also affected adversely by such changes, a strong agrarian movement against further transfer of farmlands to tea ensued in the region in 1989-90. In 1990, the Government of West Bengal articulated a policy regulating the conversion of farmlands to tea, which barred such transfers from taking place on prime agricultural land, on lands under forest and tribal lands, and on lands falling within the command area of the Tista Project. Under the policy, issuance of a No-Objection Certificate [NOC] by the State Government became compulsory before undertaking new tea plantation. Although this partially checked the unregulated expansion of 'project gardens' or *small tea plantations* over areas of less than 25 acres (10.12ha) by established tea companies to escape the statutory provisions of the Plantation Labour Act 1951, a new model emerged under which *small tea growers* [STGs] voluntarily took over the primary production of tea, selling the green leaves to nearby BLF tea factories. With the policies of trade liberalisation clearing the way for the mushrooming of BLFs in the district, land conversion began to accelerate again, until the new tea crisis of 2002.

Although the establishment of a tea plantation is a highly capital-intensive process, the pineapple growers of Uttar Dinajpur initially had to finance this from their own resources without the support of the institutional credit system. After the introduction of the NOC system, a new tea grower has to secure prior clearance of the Land Revenue Department, GoWB, through the District Land and Land Reforms Officer [DLLRO], before applying to the Tea Board for registration of the small tea plantation. Under the GoWB notice of 21 August 1998, owners of new tea gardens covering an area of upto 9.79ha (24.2 acres) are classified as tea cultivators and are issued a *Certificate for Cultivation of Tea*. If the plantation exceeds a size of 7ha (17.3 acres), the owner is also required to apply to GoWB through the DLLRO for permission to hold land in excess of the statutory land ceiling. Since the process is time-consuming, less than 30 percent of existing STGs in the North Bengal Terai and Duars are estimated to have received the required NOCs from the State Government till July 2001. In the Uttar Dinajpur terai blocks, where only 249 out of 2005 applicants had been issued NOCs, the estimated proportion is even lower at less than 13 percent of those located. Other STGs in the region have the status of applicants, but carry on their tea growing operations without official impediment.

Initially the green leaves produced by the STGs were purchased by nearby estate sector factories. With the later advent of BLFs, the bulk of the tea produced by the STGs passes onto them. Green leaf purchases are executed by *farias* or leaf agents and the prices paid for green leaves are arbitrary. Since the new tea crisis erupted in 2002, price realisation has been relatively poor, leading to mass agitation by STGs through 2002-03. The Department of Commerce & Industries, GoWB, therefore suggested that the Tea Board should lay down a *price-sharing formula*, on the basis of which the sale proceeds from made tea produced by the BLFs would be shared proportionally between the STGs and BLFs. It was also suggested that a one-on-one linkage be established between each BLF and the STGs located within its surroundings to stabilise green leaf prices, so that no leaf purchases could be made by or from other sources. In order to ensure transparency in the price realisations for made tea, it was suggested that private sales should be prohibited and all tea produced by the BLFs should be sold only by auction.

The Tea Board subsequently announced a price-sharing formula in 2004, under which the sale proceeds from BLF sales of made tea should be apportioned in the standard ratio 60:40 between the green leaf and made tea producers. However, there is little evidence that this is being adhered to, since only a minor fraction of the 74 BLFs operating in North Bengal in 2005 submit regular audited returns to the Tea Board. Persistent disregard of official orders and regulations places the livelihoods of STGs and tea workers in Uttar Dinajpur in considerable jeopardy. Besides being unorganised, the STGs suffer from low economies of scale, interior or remote location, and low bargaining power, and are often at the receiving end of unfair trade practices by the BLFs and the mushrooming leaf agents. To overcome such constraints and to improve organisation and cultivation practices, an effort has lately been launched to give a federating structure to STGs across India. The final outcome of this new effort is still awaited.

## Chapter 5

### WOMEN'S SITUATIONS IN UTTAR DINAJPUR DISTRICT

#### Gender Equity as a Human Development Strategy

Gender equity represents a state of social evolution where the entitlements, capabilities and opportunities that qualify the standard of people's lives are no longer defined by whether their subjects are male or female. Holding equal relevance for men and women caught in socially stratified situations, gender justice materialises when the achievement of economic, political and cultural freedom allows each individual to attain his or her full potential. Conversely, gender disparities arise when the rights of one set of individuals are encroached upon by the hierarchies and privilege structures that empower others from the opposite gender. Denial of equal access to basic human entitlements such as education, healthcare and nutrition as well as fair livelihood have been the traditional means for subjugating women and perpetuating their subordination. Recognising that women are too frequently found among the ranks of the poor, the less literate and the socially insecure, the human development approach seeks to liberate women from their unequal situations by identifying the systemic biases that operate against women, binding them to inferior positions within society.

Commencing with International Women's Year in 1975, issues relating to gender and women's situations had gradually entered national and international development agendas that sought to address the problem of human poverty and provide for the fulfilment of basic human needs. The formulation of the Millennium Development Goals [MDGs] strategy has led to a penetrating analysis of the origins of poverty, identifying its roots in social injustice and gender inequality. Major initiatives launched by the global women's movement such as CEDAW [Convention for Elimination of All Forms of Discrimination against Women] and the Beijing Platform for Action [PFA 1995] were ratified in National Plans for gender equity and women's development. Setting time-bound and measurable targets to be met by the year 2015 in order to eliminate human poverty, the MDGs drew focus to many development issues with direct impacts on women in Indian society, among which are

- improved nutritional standards that end nutritional discrimination against children.
- universalisation of elementary education [UEE] that raises school enrolment and literacy among girl children.
- improvement of women's representation within the non-agricultural workforce and within economic and political processes.
- reduction of child mortality through improved delivery of immunisation and preventive healthcare.
- improvement of maternal health through supervised and safe deliveries.
- reduction of the burden of communicable diseases such as HIV/AIDS, etc. through effective monitoring and better standards of reproductive health.
- sustainable environmental standards including equitable access to energy, water and land resources, which saves women from having to bear the unequal cost of environmental degradation.

The invisible gender structures that operate within society in Uttar Dinajpur today can thus be made visible by identifying existing disparities in literacy and education, unequal health and nutritional standards and

unequal work opportunities, all of which discriminate selectively against women in Uttar Dinajpur. Along with a detailed probe into these basic gender concerns, the present section also explores issues relating to the personal security of women as reflected by the incidence of crimes against women [CaW] in the district.

### Gender Disparities in Uttar Dinajpur: An Overview

In the year 2001, Uttar Dinajpur had a population of 24.4 lakh, compared to 8.02 crore in West Bengal and 102.9 crore in India. The gender constituents in the district population comprised 11.8 lakh females and 12.6 lakh males. The ratio of women to men i.e. the female-male ratio [FMR] in the district thus worked out to 938 females per thousand males, which was nominally better than the FMR for West Bengal (934) and India (933). However, between 1991-2001, both West Bengal and Uttar Dinajpur showed substantial improvements in FMR by 17 points, compared to which the increase in India was by only 6 points. While the high order of improvement could indicate significantly better survival of women and girl children in the region, it could also be affected by the migration patterns of Uttar Dinajpur district as well as the state. To resolve this, decennial population growth in Uttar Dinajpur over the same period may be briefly considered. Between 1991 and 2001, the district population of Uttar Dinajpur grew by 29.1 percent, rising from 18.9 lakh to 24.4 lakh. The decennial increase in the female population was 30.4 percent, against decennial increase in the male population by 27.9 percent. In the rural areas of the district, the population grew even faster by 31.1 percent, with 32.3 percent increase among rural females. Thus, over all population segments in Uttar Dinajpur including urban areas, the decennial growth of females greatly outstripped the rate of growth of males.

Urbanisation levels, nevertheless, still remain low in Uttar Dinajpur (12.1%) in comparison to West Bengal (28%) and India (27.8%), as seen in the accompanying table. Urbanisation patterns in the district as well as the state are both characterised by relatively high migration of single males, which brings urban FMRs down to 893 in both Uttar Dinajpur and West Bengal compared to 900 for urban India. However rural FMR, which would otherwise be expected to rise substantially if this male migration was entirely sourced from within the district, is actually lower in Uttar Dinajpur (945) than in West Bengal (950) as well as India (946). This offers substantial evidence that the improvements in FMR and the very high decennial population growth rates recorded by Uttar Dinajpur between 1991-2001 are heavily influenced by inward migration of males and even larger numbers of females, rather than by improved girl child survival per se.

**Table: Gender Disparities in Uttar Dinajpur, West Bengal and India**

Indicator	Uttar Dinajpur	West Bengal	India
<b>Gender Population Disparities</b>			
2001 Total Population	24,41,794	8,01,76,197	102,86,10,328
2001 Total Female Population	11,82,057	3,87,10,212	49,64,53,556
2001 Total Male Population	12,59,737	4,14,65,985	53,21,56,772
2001 FMR	938	934	933
1991 FMR	921	917	927
FMR Gain 1991-2001	17	17	6
<b>Rural-Urban Disparities</b>			
2001 Rural Population	21,47,351	5,77,48,946	74,24,90,639
2001 Urban Population	2,94,443	2,24,27,251	28,61,19,692



**Table: Gender Disparities in Uttar Dinajpur, West Bengal and India**

Contd.

Indicator	Uttar Dinajpur	West Bengal	India
2001 % Urbanisation	12.1	28.0	27.8
2001 Rural Female Population	10,43,127	2,81,32,937	36,08,87,965
2001 Rural Male Population	11,04,224	2,96,16,009	38,16,02,674
2001 Urban Female Population	138,930	1,05,77,275	13,55,65,591
2001 Urban Male Population	155,513	1,18,49,976	15,05,54,098
2001 Rural FMR	945	950	946
2001 Urban FMR	893	893	900
<b>Literacy &amp; Educational Disparities</b>			
Primary Gross Enrolment Ratio [GER]	147.8	113.4	110.9
2001 Female Literacy [%]	36.5	59.6	53.7
2001 Male Literacy [%]	58.5	77.0	75.3
2001 Gender Literacy Gap [%]	-22.0	-17.4	-21.6
<b>Maternal &amp; Child Health Disparities</b>			
Total Fertility Rate [TFR]	4.9	2.4	3.0
Institutional Deliveries [%]	20.6	46.3	40.5
Infant Mortality Rate [IMR]	68	49	58
2001 Child FMR (0-6year)	966	960	927
2001 Rural Child FMR (0-6year)	969	963	934
2001 Urban Child FMR (0-6year)	936	948	906
<b>Economic Disparities</b>			
2001 % Female Work Participation Rate [WPR]	23.8	26.4	25.6
2001 % Male Work Participation Rate [WPR]	51.9	54.0	51.7
2001 % Gender WPR Gap	-28.1	-27.6	-26.1

Source: Census, 2001, DISE 2006 &amp; DLHS-RCH, 2004

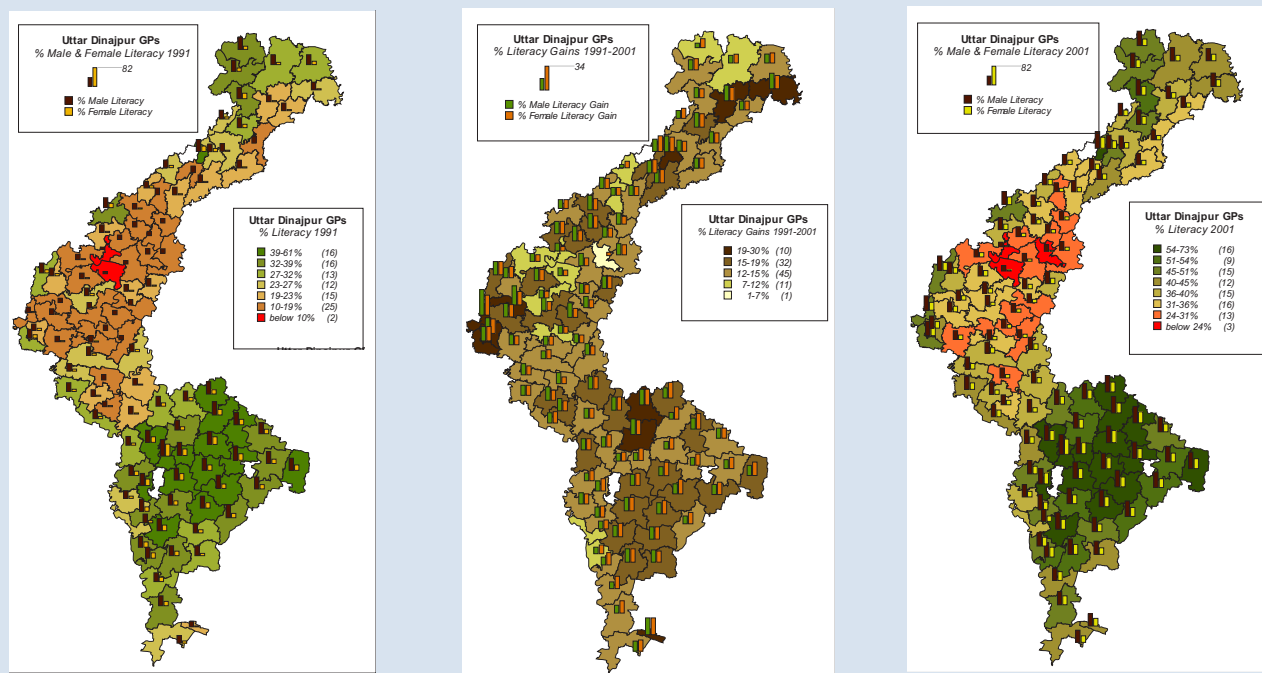
Gross enrolment ratios [GERs] for primary education are substantially higher in Uttar Dinajpur than in West Bengal or India. However while indicating a high degree of response to primary education opportunities in the district, GERs for primary enrolments by their nature are influenced by the extent to which underage and overage children attend school along with children in the primary schoolgoing age-group of 6-11 years. Obviously, this proportion in Uttar Dinajpur is very high. During the earlier assessment of the educational situation in the district, it was also seen that high GERs are accompanied by high dropout rates at the primary and post-primary stages, particularly among girls. While general literacy levels in Uttar Dinajpur lag behind the literacy rates for West Bengal and India, female literacy levels in the district are also among the lowest in the country. The high deficit of 22 percentage points between female and male literacy rates in the district, against the smaller deficit of 17 percentage points for West Bengal, also provides strong evidence that much higher levels of gender discrimination persist in Uttar Dinajpur which prevent women from exercising the same leverage over educational opportunities as males, particularly in rural areas.

More evidence of the impositions that strong patriarchal structures within rural communities make on the reproductive health of women is seen in the very high total fertility rate [TFR] of 4.9 per woman in the district, differing sharply from 2.4 in West Bengal and 3.0 in India as a whole. The impacts of high fertility and multiple pregnancies on the health of women and children in Uttar Dinajpur are also visible in the low rate of institutionalised deliveries and high levels of infant mortality, in contrast to the rates for West Bengal and India. Using a more scientific methodology to assess this, the DLHS-RHS survey conducted in 2004 estimated IMR in Uttar Dinajpur to be as high as 122 per thousand live births. The immediate fallout of low healthcare coverage, poor reproductive rights and the limited autonomy that women exercise as mothers is felt in the lower probability of child survival in Uttar Dinajpur, which reinforces high TFR. Evidence of this is seen in the sharp decline in the proportion of females in the Uttar Dinajpur population from the child FMR of 966 in the age-group 0-6years to the FMR of 936 in the general population. Sharp attritions in FMR after infancy, which reflect higher differential mortality among women and girl children, are caused primarily by nutritional discrimination as well as unequal gender access to healthcare. In rural Uttar Dinajpur, the rate of attrition is much higher, sharply exceeding the attrition rates in West Bengal and India.

One reason why men have higher earnings than women is because they accumulate more human capital through education and experience, and also receive higher returns to education compared to women in the form of gender wage differentials. While no direct gender wage data are available in Uttar Dinajpur to substantiate this, comparison of gender work participation rates provides enough evidence of work discrimination between men and women in the district. Work participation rates among women in Uttar Dinajpur are much lower than the corresponding rates for West Bengal or India. Thus while less than a quarter of the women in the district directly participate in economic work, male work participation rates in Uttar Dinajpur exceed the rates in India as a whole and are only marginally behind the male work participation rates in West Bengal.

Even from preliminary study of a few selected indicators, it becomes evident that women in Uttar Dinajpur face considerable discrimination within their social, economic and personal spheres. Coupled with high landlessness, illiteracy and poverty in the district, women bear the added brunt of gender injustice and subordination. While economic upliftment can come in the course of economic development, it can only touch the lives of women meaningfully if it also augments their opportunities and freedoms. Hence a more detailed examination of women's situations in Uttar Dinajpur district must be made to identify specific regions and sector where gender discrimination is strongest. From the extent of the gender gap seen in the foregoing indicators, the first area for focused study is gender literacy.

## MAP: Changes in Rural Literacy in Uttar Dinajpur, 1991-2001



### Gender Gaps in Literacy

Literacy and educational attainments are important aspects of human development since they are direct reflections of human capital formation. Persisting disparities in these attainments between the sexes and communities perpetuate unequal human development and discrimination, directly worsening human poverty situations because certain segments of society remain disempowered and cannot match the progress achieved by others. Disparities in gender literacy therefore become a serious impediment to the social and economic empowerment of women, and also constrain the implementation of all development schemes.

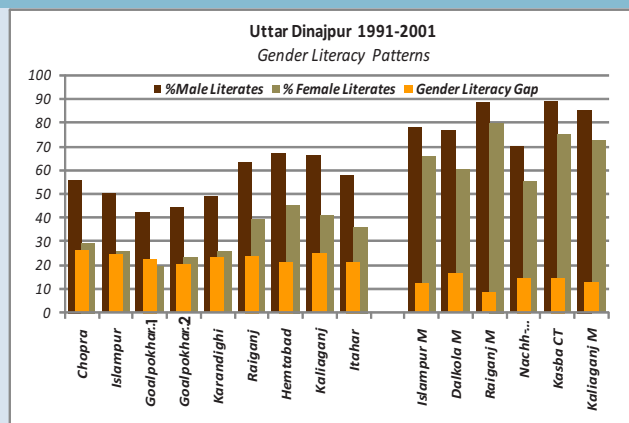
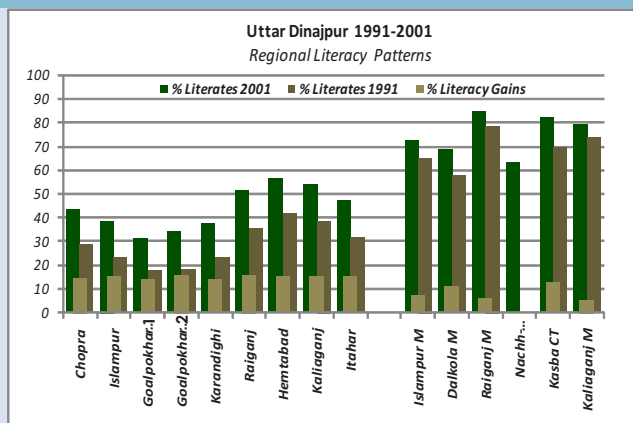
The associated maps compare the patterns of rural literacy across the 98 Gram Panchayats [GPs] of Uttar Dinajpur in 1991 and 2001, along with the GP-wise gender literacy differentials between men and women in both census years. The region of highest rural literacy, well above the district average, is clearly concentrated across sixteen GPs spanning Hemtabad, Kaliaganj and parts of Raiganj and Itahar blocks, with a zone of lower literacy achievements surrounding its periphery. In Islampur SD, superior literacy achievements are limited to a few GPs along the western district boundary, including western Chopra and isolated GPs close by the urban settlements of Islampur, Kishanganj and Dalkola. Urban literacy is not depicted in the maps. In both census-years, riverine GPs along the Mahananda and those in valley of the Nagar at the northwestern corner of Raiganj show indifferent literacy achievements. A large cluster of GPs spreading over Goalpokhar-1, Goalpokhar-2, and adjacent GPs in Karandighi show much lower literacy achievements compared to the rest of the district, while Sahapur-1 and Sahapur-2 GPs in Goalpokhar-2 block show the lowest literacy levels in Uttar Dinajpur district, at below 10 percent in 1991. A decade later in 2001, literacy levels across the district have increased in proportionate terms, but the distribution of high literacy and low literacy zones remains practically unchanged. Sahapur-1 and Sahapur-2 in Goalpokhar-2 are now joined by Lodhan GP in Goalpokhar-1 at the lowest rank within the district, with literacy rates below 24 percent. While literacy gains also occur in the immediate vicinity of Dalkola and Islampur, the western Chopra GPs stretching from Haptiagachh to Ramganj-1 maintain their lead in literacy in Islampur SD.

The superimposed barplots on the maps for both census-years indicate the variations in gender literacy achievement in Uttar Dinajpur district, while the central map depicts the literacy gains achieved in the district between 1991-2001. Clearly, the GPs where the sharpest gains in literacy of over 20 percentage points have been achieved are not located in the high literacy zone, but in the low literacy peripheries around Ghirnigaon and Chutiakhor GPs in Chopra block, Matikunda-1 GP in Islampur, Surjapur-1 and Nizampur-2 GPs in Goalpokhar-2, Dalkola-1 GP in the vicinity of Dalkola municipality in Karandighi and the Sherpur-Bindol area of Raiganj block. Literacy gains ranging between 15 to 20 percentage points have also been recorded by many GPs spread across the district. However, while in the low literacy areas of Islampur SD these are scattered non-contiguously, they form a dense cluster in the high literacy area of Raiganj SD.

As the barplots indicate, gender literacy gaps have narrowed in most GPs of Uttar Dinajpur as overall literacy levels have risen between 1991-2001. Limited literacy gains have occurred in an isolated manner in the Haptiagachh-Majhiali area of Chopra block, Gunjaria and Gaisal-2 GPs in Islampur block as well as Surun-1 and Gulandar-2 GPs in Itahar, but are much more concentrated in Belan, Sahapur-1, Sahapur-2 and Torial GP in Goalpokhar-2 which form a ring around the block headquarters at Chakulia and in nearby Bazargaon-2 GP in Karandighi. In most of these low literacy GPs, female literacy achievements too have remained low between 1991-2001, in comparison to the gains seen in the other GPs of Uttar Dinajpur. Most GPs that recorded high to very high literacy gains in the district over the period have done so on the strength of improved female literacy. In the high literacy zone spreading between Raiganj, Hemtabad and Kaliaganj block, where male literacy was relatively high to start with, the literacy gains between 1991-2001 have occurred because the gains in female literacy have generally surpassed male literacy gains.

The rural literacy situation in Uttar Dinajpur thus seems to be getting more gender equal on the whole, as women begin to catch up with their male peers. Nevertheless, certain pockets of sharp gender differentiation still exist where gender literacy gaps exceed 27 percent. In Islampur SD, these are mainly clustered around Chopra block and the eastern borderlands of Islampur block, where men have clear leverage over educational opportunities. To the south of the district, areas with high gender literacy disparities are more scattered, occurring in Lahutara-2 GP in Karandighi, Mahipur and Birghai GPs in Raiganj, Surun-2 and Patirajpur in Itahar, and Baruna and Anantapur GPs in Kaliaganj. No GPs in Goalpokhar-1, Goalpokhar-2 and Hemtabad show high gender literacy disparities of the same order, primarily because in the Goalpokhar region, both men and women have more limited access to educational opportunities, while in Hemtabad, their access has generally been more equal.

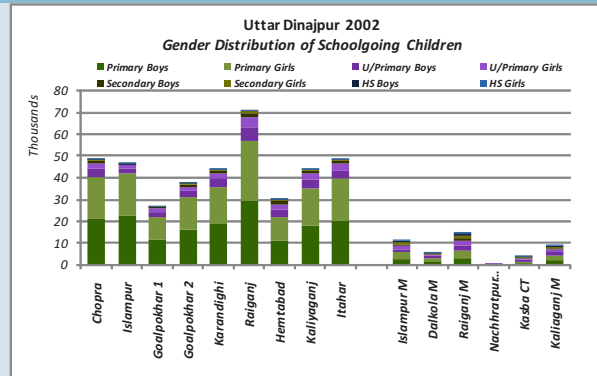
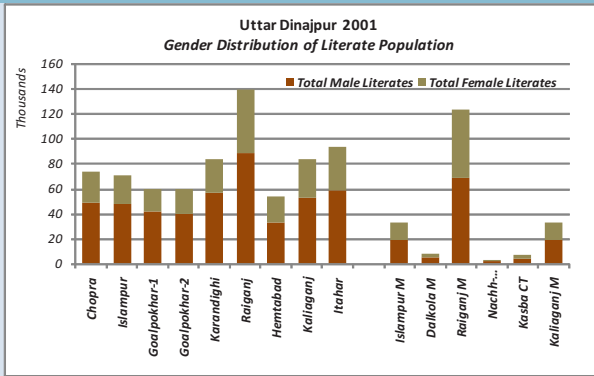
The block level summary of regional literacy patterns in Uttar Dinajpur in the associated table and barcharts reinforces these conclusions. Despite the wide variation in block literacy rates in 1991 and 2001, strong rural literacy gains have been registered between 1991-2001 through all the Islampur SD blocks which had relatively low literacy achievements in 1991. The order of increase in Goalpokhar-2 block which had less than 20 percent literacy in 1991 is by well over 15 percentage points, surpassed only in Raiganj block. Nevertheless except for Chopra, no other Islampur SD block appears likely to catch up with the Raiganj SD blocks in the near future. Despite the gains in rural literacy, urban literacy rates in Uttar Dinajpur are still well ahead of block literacy rates. However, since the literacy gains are higher in rural Uttar Dinajpur, the gap between rural and urban literacy is narrowing down. Despite such positive indications, these literacy achievements in rural Uttar Dinajpur have also enlarged the gap between male and female literacy rates in most blocks. The minimum gender gap found in Hemtabad and Itahar still exceeds 21 percentage points, and widens considerably in the Islampur SD blocks where Chopra records the highest literacy gender differential exceeding 26 points, primarily because women have not been able to access new learning opportunities on equal terms.



**Table: Gender Literacy Rates in Uttar Dinajpur, 1991-2001**

CD Block/Town	2001 % Literates	1991 % Literates	1991-2001 % Literacy Gains	2001 % Male Literates	2001 % Female Literates	2001 Gender Literacy Gap
Chopra	43.3	28.8	14.5	55.9	29.7	26.2
Islampur	38.4	23.2	15.2	50.3	25.7	24.6
Goalpokhar-1	31.6	17.6	14.0	42.6	19.8	22.9
Goalpokhar-2	34.1	18.4	15.7	44.0	23.6	20.5
Karandighi	37.6	23.3	14.3	48.9	25.5	23.3
Raiganj	51.5	35.4	16.1	63.0	39.1	23.9
Hemtabad	56.7	41.7	15.0	67.1	45.7	21.4
Kaliaganj	54.1	38.8	15.3	66.4	41.1	25.3
Itahar	47.4	32.1	15.3	57.8	36.5	21.4
Uttar Dinajpur Rural	42.9	27.8	15.1	54.2	30.8	23.4
Islampur M	72.6	65.4	7.1	78.2	66.0	12.3
Dalkhola M	68.9	57.7	11.1	76.6	60.0	16.6
Raiganj M	84.6	78.7	5.9	88.7	80.0	8.8
Nachh... (Nachhratpur-Katabari CT)	63.3	-	-	70.2	55.5	14.6
Kasba CT	82.5	69.6	12.9	89.2	74.8	14.4
Kaliaganj M	79.2	73.6	5.6	85.5	72.5	13.0
Uttar Dinajpur Urban	80.5	74.5	6.0	85.5	74.8	10.7
<b>Uttar Dinajpur DT</b>	<b>47.9</b>	<b>34.6</b>	<b>13.3</b>	<b>58.5</b>	<b>36.5</b>	<b>22.0</b>

Source: Census, 2001



The distribution of the literate population in the district shows a definite concentration of literate women in the Raiganj SD blocks and towns. Through Islampur SD, women literates are still too few in number to effect a consolidated social transformation, as they live under the domination of a large group of literate as well as illiterate men. The Islampur region is culturally homogeneous with 65 percent Muslim population, intensely rural with less than 12 percent urbanisation, and has high illiteracy exceeding 71 percent for the subdivisional population and 80 percent for women. In effect therefore, while literate rural women in Raiganj SD are able to exercise more agency over their own social and economic transformation because of their larger collective numbers, their literate counterparts in the Muslim-dominated blocks of Islampur SD are subject to greater gender control because of greater cultural homogeneity, higher rurality and higher illiteracy, which act together to reinforce the patterns of gender dominance. Nevertheless, a change is underway in the younger age-groups, where schoolgirls constitute a large section of the schoolgoing children. Although so far, their presence is largely restricted to primary education, the sheer weight of the Islampur SD blocks in terms of population ensures their numbers are large. Hence a change in gender structures is liable to take place within a generation, when these girls reach maturity and begin to exercise more say in their own affairs.

Gender gaps in urban literacy in Uttar Dinajpur range between 10-16 percent in Islampur, Kaliaganj and Dalkola municipalities. In the city of Raiganj, the gap narrows to less than 10 percent, primarily because of the concentration of educational institutions at the district headquarters. While better access to formal education lowers gender gaps in urban literacy levels because of the high threshold literacy achievements in urban areas, the absence of social and cultural impositions on women in progressive urban societies also has a positive impact on female literacy rates. In rural areas in contrast, where the overall literacy thresholds are low, the gender structures within rural society tend to reinforce and preserve gender literacy gaps. By doing so, they also seek to preserve themselves. Unfortunately by this action, they also limit the progress that can be made in terms of human development since the women who constitute a large segment of rural society are unable to participate on equal terms in social and economic processes.

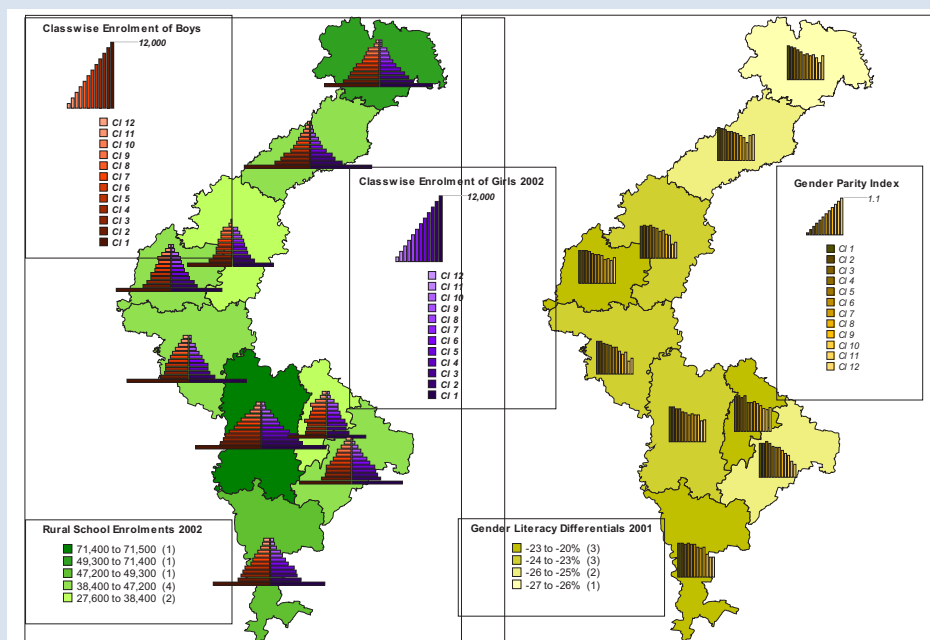
Gender literacy levels in the Uttar Dinajpur blocks also reflect the longterm attainment of formal and functional education among the block populations. School enrolments, on the other hand, showcase trends in the current attainment of education by girls and boys, which show up in improved gender literacy levels during subsequent decades. Thus in addition to literacy rates, gross enrolment ratios [GERs] are incorporated as a basic indicator for education index calculations in human development reports, since they reflect the current attainment of formal education among girls and boys of school-going ages. Growing enrolment trends among girls in all Uttar Dinajpur blocks in the recent period are an important pointer to rising awareness about the merits of girl's education in all parts of the district.

Widening disparities between the enrolment of boys and girls also become visible in the pyramidal structure of genderwise enrolments, commencing from Class 1 at the base to Class 12 at the apex, in the

associated regional maps which provide a visual representation of 7th AISES enrolment data on rural Uttar Dinajpur. The flatter gradients for girl enrolments in the pyramid in every block indicate higher dropouts for girls compared to boys, as well as lower retention of girl students at every educational stage. Thus the stereotypical features of patriarchal society with its pronounced preference for sons and discriminatory treatment towards girls, inevitably causes girl children to drop behind, creating enough leverage for male children to advance and reap the benefits of education and development participation.

Three dominant patterns are noticed in the pyramidal enrolment charts. While all Uttar Dinajpur blocks show high enrolments of rural girls and boys in Class 1 and low transition to the Class 2 stage, high-enrolment blocks like Itahar, Raiganj and Chopra also show a high taper so that the number of children who advance through to Class 12 is ultimately very small in comparison to the large enrolment at the base. Nevertheless, while Raiganj is able to retain more students till class 12 because of its better post-primary educational network, Chopra and Itahar show pronounced post-primary dropouts, with sharper dropouts for rural girls. A second dominant pattern, reflected in the enrolment pyramids for Kaliaganj, Goalpokhar-2 and Karandighi, is for sharper dropouts and lower retention of rural students at the primary stage, followed by better retention of the students who stay in the system through till the Class 12 stage. However, the beneficiaries of this are mostly boys, who comprise the mass of primary in these blocks. A third pyramidal pattern which is seen in blocks like Goalpokhar-1 and Hemtabad, is for higher and more gender-balanced retention of students till the Class 10 stage after the initial dropout during the transition from Class 1 to Class 2. Although the patterns of the two blocks are similar, they occur because of wholly dissimilar causes. Thus, better retention of students in Hemtabad reflects the superior educational attainments of the block, which allow a larger proportion of the students enrolled at the primary stage to complete their education upto the Madhyamik stage. In Goalpokhar-1 on the other hand, where the dropout at the initial educational stages is sharp, retention levels are constrained by the limited enrolment capacity at the upper stages of the educational system which continues to force many older children away from school. Enrolments in both blocks are relatively gender balanced, because higher educational achievements in Hemtabad accommodate more girls at schools while low educational achievements in Goalpokhar-1 cause more children to stay out of school irrespective of whether they are girls or boys.

**MAP: Gender Disparities in Literacy & School Enrolment in Uttar Dinajpur District**



The *gender parity ratios* [GPRs] in the accompanying regional map reflect the proportion of girls enrolled to boys in every class, and in ideal circumstances would attain the value of 1. Hence the drop in GPR from Class 1 to Class 12 indicates the extent of gender inequality and gender-specific dropouts within school education for every block.

Since all Uttar Dinajpur blocks show a proportionate decline in class-wise girl enrolments, the GPRs show a pronounced taper from Class 1 till Class 12. Nevertheless, in all Raiganj SD blocks except for Raiganj itself, better retention of girls occurs at the primary education stages. While Goalpokhar-1 and Goalpokhar-2 also exhibit similar gender retention patterns in primary education, gender parity tapers continuously in Chopra, Islampur, Karandighi and Raiganj. Another curious characteristic seen in Chopra, Islampur and Goalpokhar-2 is for gender parity to improve again in the HS classes, probably because of the differential dropout of boys at the higher stages of school education, as well as the inflow of girls from other surrounding blocks to the relatively few HS schools that serve the Islampur region. A converse pattern where gender parity drops sharply at the ultimate educational stages is seen in most other Uttar Dinajpur blocks, including Raiganj and Kaliaganj, indicating that Madhyamik and HS enrolments here are dominated overwhelmingly by boys. Hemtabad nevertheless exhibits a unique enrolment pattern of its own, with GPR plateaus at the Primary, upper primary and HS stages and a fall-off of girl students during the transitions in between. When evaluated against existing gender literacy differentials in the Uttar Dinajpur blocks, it is seen that better gender parity in rural enrolments generally prevails in blocks where the literacy differentials are highest, substantiating the inference the gap between male and female literacy achievements in these blocks is likely to be reduced during the process of generational change. Higher gender inequalities in enrolment prevail in blocks where the gender literacy differentials are comparatively low, probably because of persisting unwillingness of parents to educate their daughters beyond a certain point.

### Changing Fertility in Uttar Dinajpur

As observed during the general overview of gender disparities in Uttar Dinajpur, high fertility levels have a particularly debilitating chain-impact on the status of women in the district, adversely influencing their general health, their marital and reproductive rights and the survival of mothers and children, and ultimately strengthening their subordination within the family and society. In 1991, fertility rates among women in the undivided district of West Dinajpur, measured in terms of the children ever born to women who were married at some point in their lives, greatly surpassed fertility levels for West Bengal as a whole. Most women in the ever-married category would thus have given birth to between 4-5 children within the reproductive span of their lives, indicating that high population growth in the region is as much driven by these high levels of female fertility as it is by the high levels of migration into the Dinajpur region. Such high total fertility rates also indicate that women in the region have an extended reproductive span, because of widespread prevalence of early marriage. Repeated pregnancies among young women who have not reached sexual maturity are accompanied by birth complications that lead to higher incidence of maternal and child mortality, as well as by other health problems that affect the possibilities of their longterm survival. Such differences in gender survival rates lead to lower life expectancy among women, to higher masculinity in the surviving population and thus also to differentials in the gender rates of in-migration because the need for higher migration inflows of women is driven by the need of single surviving males to find nuptial partners.



**Table: Birth Rates & Fertility Trends in Uttar Dinajpur, 1991-2001**

Districts/State	Crude Birth Rate [CBR]	Total Fertility Rate [TFR]
<b>Census 1991</b>		
West Dinajpur	33.9	4.4
West Bengal	29.0	3.6
<b>Census 2001</b>		
Uttar Dinajpur	35.1	4.9
Dakshin Dinajpur	26.9	3.3
West Bengal	17.9	2.4

Source: Computed on Census, 1991 & 2001

Using Census, 2001 data, independent comparisons can be made between fertility trends in Uttar Dinajpur and Dakshin Dinajpur and the fertility levels for the state. Uttar Dinajpur had clearly been the main contributor to high fertility in erstwhile West Dinajpur in 1991. Hence after the separation of the district, CBR in 2001 increases from 33.9 to 35.1 per 1000 population in Uttar Dinajpur while TFR climbs from 4.4 to 4.9, showing clear divergence from the declining fertility trend in West Bengal between 1991-2001. On the other hand, fertility levels and birth rates in Dakshin Dinajpur decline substantially from the levels which prevailed in the undivided district.

A critical factor that also conditions high fertility in Uttar Dinajpur is the rate of child survival. The patterns of child-birth and child survival in the district indicate that high TFR is driven by the lower probability that each child that is born will eventually survive into maturity. Such survival probabilities are lowest in regions where TFRs are particularly high, and are typically much lower in rural areas compared to urban areas. Gender differences within these child survival rates also lead to the differential mortality of girl children, causing the sharp attrition of FMR from 966 for the 0-6 age-group to 938 for the district population as a whole. This has particularly sharp longterm consequences in terms of growing masculinity of the surviving population and the resulting migration inflows of women into the district to serve as nuptial partners.

**Table: Rural & Urban Differentials in Fertility in Uttar Dinajpur, 1991-2001**

Districts/State	Ever-married Women in Age-group 45-49 years			Ever-Born Children			Surviving Children		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
<b>Census 1991</b>									
West Dinajpur	56053	49589	6464	4.9	5.0	4.0	4.2	4.2	3.7
West Bengal	1296728	1010990	285738	4.6	4.8	3.8	4.0	4.1	3.6
<b>Census 2001</b>									
Uttar Dinajpur	45660	39307	6353	4.8	5.0	3.5	4.0	4.1	3.2
Dakshin Dinajpur	33337	28529	4808	3.9	4.1	3.1	3.3	3.4	2.8
West Bengal	1762881	1196422	566459	3.8	4.2	3.0	3.3	3.6	2.7

Source: Census, 1991 & 2001

In 1991, 4 children survived out of every 4.6 children ever-born in West Bengal. Child survival probabilities were lower in West Dinajpur, where 4.2 children survived out of 4.9 children ever-born. The main sources for low child survival were the rural areas of the undivided district, where the survival probability was even lower. In urban areas, where fertility levels were lower, child survival also improved. Compared to the 1991 levels for undivided West Dinajpur, rural birth rates and child survival rates in Uttar Dinajpur in 2001 scarcely show evidence of any change, while urban rates improve significantly. Dakshin Dinajpur district again stands in marked contrast. Both in urban and rural areas, child survival is substantially better, bringing about a strong fertility decline.

High levels of child mortality are usually the result of a mix of cultural and demographic factors, such as low levels of institutional deliveries, lower survival rates of girl children who suffer disproportionately from neglect and malnourishment, and higher gender-specific mortality risks like maternal mortality, which also cause the neglect of surviving children. A study conducted recently by the Centre for Women's Studies, North Bengal University, for the Government of West Bengal on child marriage, dowry offences and trafficking of women in the North Bengal districts, revealed that the usual age at marriage ranged between 14-16 years in the rural areas of most districts. In case of Uttar Dinajpur, early marriages at the age of 11-12 years were still fairly common among certain rural communities. Early marriage resulted in a lengthening of the reproductive span as well as high-risk pregnancies, ultimately raising the incidence of maternal mortality and infant mortality rates, and perpetuating the cycle of high TFR.

Paradoxically, such demographic characteristics that have adverse consequences on the survival of women do not improve the social position of women but are in fact 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, making them 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, thereby buying a share in the social privileges and power possessed by the male.

### **Reproductive & Child Healthcare [RCH]**

The RCH programme is an integrated healthcare intervention, aimed towards improving mother and child survival and ultimately lowering the levels of rural fertility. Women's situations can also be redressed indirectly by a host of other development interventions that advance their social and mental well-being, like improved rural access to safe drinking water and electricity, higher standards of education and rural literacy, widened access to economic livelihoods and so on. However, RCH interventions which aim directly at raising the mean age at marriage, improving maternal health through proper antenatal and post-partum care and supplementary nutrition, institutionalising maternity services and ensuring safe deliveries, reducing birth-order through proper birth spacing, serving unmet needs for family planning, etc. reach out specifically towards women, addressing them in their personal sphere as mothers, and advancing their physical well-being.

Beginning initially in 1997 as a specific package of health-oriented mother & child development services delivered through ICDS to the rural areas of the country, the RCH programme created critical convergences between the preventive healthcare needs of rural communities and the State healthcare system. However, the execution of RCH through the ICDS system has had several intrinsic limitations. ICDS was developed outside the health system, as a flagship child nutrition project administered by the Women & Child Development Department [WCD] of the Ministry of Human Resource Development [MHRD], and has therefore had the status of a departmental scheme rather than that of a comprehensive RCH health service system. Till the Supreme Court order of December, 2006 on universalising the ICDS programme across all villages in the country, Kerala was the only state which had achieved near cent-percent village coverage. ICDS coverage in West Bengal rose marginally between 1992-98 from 45 percent [NFHS-I] to 58 percent [NFHS-II], during which the all-India coverage rose from 35 percent to 52 percent. Nor was it necessarily true, as independent evaluations had repeatedly pointed out, that the ICDS programme had reached out to all underserved areas and the poorest families, despite its huge grassroots presence across the country. Because of the limited staffing pattern and the multiple responsibilities assigned to the anganwadi workers [AWWs], the operational focus of ICDS was largely limited to AWC-based activities. Thus, pregnant women, young mothers and children under the age of 3 were usually underserved by ICDS, because of their inability to attend the anganwadi centres [AWCs] on a daily basis. Compliance with the 2008 deadline for implementation of the Supreme Court order has necessitated the establishment of over 1.88 lakh rural [AWCs] across India within the space of a single year, severely stretching the institutional capacity of the ICDS network to provide RCH services effectively.

Recognising the importance of RCH as a critical health intervention, RCH services have subsequently been included under the National Rural Health Mission [NRHM] launched in 2005 by the Government of India to provide accessible, affordable, accountable and high quality health services reaching out to the poorest of households in remote rural areas. NRHM seeks to support the basic RCH package of antenatal and postnatal monitoring, immunisation and supplementary nutrition services through greater convergence with health sector schemes that have RCH outcomes. Among these additional RCH support schemes, the most important include

- the *Universal Immunisation Programme* [UIP] to immunise all young rural children against preventable disease
- the promotion of *Gram Panchayat-based Mobile Health Camps* to improve the outreach of rural health services
- the *Janani Suraksha Yojana* [JSY] to improve the rates of institutional deliveries among BPL families, with provision of financial incentives
- the *Referral Transport Scheme* [RTS] to improve the institutionalisation of deliveries SC/ST women by providing for reimbursement of transport costs to pregnant women who have been referred to clinical facilities
- the *Ayushmani Scheme* to improve the rates of institutional deliveries among SC/ST and BPL women by providing institutional delivery services at Government cost
- the establishment of a specially-equipped *Sick New-Born Care Unit* [SNCU] attached to the paediatrics ward at District Hospitals to reduce the rates of neonatal mortality

Another innovative rural healthcare intervention under NRHM relates to the proposed appointment of a female Accredited Social Health Activist [ASHA] worker at every village to act as an active intermediary

between the State healthcare system and the rural community. Each ASHA worker would be provided induction training including technical knowledge, and would then work in tandem with the AWW at the ICDS centre and the ANM posted at the local sub-health centre [SHC], under the supervision of the Gram Panchayat, providing voluntary support to UIP, JSY, RTS and public health and sanitation schemes against a modest honorarium. She would also be trained to extend first-level health advice to the rural community and supply drug-based treatment against basic ailments. The ASHA workers would therefore fill a vital gap between the healthcare system and the recipients of healthcare services, especially in the case of RCH delivery from the AWCs and SHCs.

In Uttar Dinajpur district, the ASHA scheme has been introduced experimentally in Karandighi block, where 305 ASHA workers had been appointed upto the end of 2007, covering the entire block at the rate of one ASHA worker per 1000 population. JSY had been introduced in 19 PHCs and the Ayushmati scheme was being implemented through Nivedita Seva Sadan in Raiganj, where 12 expecting mothers had benefited from the scheme till November 2007. Other RCH activities taken up under NRHM in Uttar Dinajpur district included the strengthening of the School Health and Routine Immunisation programmes, the introduction of Positive Deviance [PD] nutrition program, the enhancement of Family Welfare services including sterilisation services and training programmes for traditional midwives or dais, and the development of all-round 24/7 maternity services at certain selected First Referral Units [FRUs].

While NRHM is thus expected to make a major contribution towards ameliorating the reproductive health situation in Uttar Dinajpur district, potential pitfalls also need to be kept in mind. As seen during detailed analysis of the regional health situation, rural healthcare in Uttar Dinajpur presently suffers from serious institutional deficiencies in staffing and infrastructure, the combined impact of which is multiplied by rapid growth of the district population, putting unmanageable pressures on the district health system. A part of these deficiencies is inherited from the time when the Uttar Dinajpur region was a constituent of undivided West Dinajpur district, comprising its most backward blocks. However even after the bifurcation of the predecessor district in 1992, these difficulties have not been satisfactorily resolved, the strongest indication of which is provided by the fact that the District Hospital [DH] at Raiganj and the Kaliaganj State General Hospital [SGH] and Islampur Subdivisional Hospital [SDH] still lack the essential infrastructure required for hospitals at this level, leading to serious healthcare deprivation in Uttar Dinajpur. While the number of SHCs and PHCs still falls far short of recommended population based norms, prolonged staffing shortages at the level of Medical Officers, ANMs and SHC Health Assistants further impede the effective delivery of rural health services. High fertility and high infant and maternal mortality in Uttar Dinajpur are also inevitable consequences of these health delivery constraints.

The integrated RCH services to be delivered under NRHM essentially address two critical reproductive health problems faced in Uttar Dinajpur, namely high maternal mortality and high IMR. The best way to reduce the incidence of maternal deaths is to improve the institutionalisation of deliveries among the poorest sections of rural society, for which JSY, RTS and the Ayushmati scheme have been specifically designed. Nutritional and immunisation services and the provision of critical neonatal care by SCNUs aim at the reduction of child mortality and infant deaths, particularly during the neonatal stage. All these interventions would logically be expected to bring good results in Uttar Dinajpur. However, two implementational problems still remain. Improved delivery of RCH services with the help of the scheme interventions presupposes the existence of the requisite healthcare infrastructure, which is seriously lacking in Uttar Dinajpur, even at DH level. Since the number of PHCs and SHCs is also inadequate, rural residents have to travel greater distances at high personal costs to access healthcare, and the vast internal distances within Uttar Dinajpur put the DH referral facilities well beyond the physical reach of residents living in

Islampur SD. However, under the targeting mode common to most Government welfare schemes in India, the benefits of JSY, RTS, etc. accrue directly only to the SC/ST and BPL segments of the rural community. No explicit provision exists for directing these schemes to the Muslims who constitute over 46 percent of the rural community in Uttar Dinajpur and over 61 percent of the subdivisional population in Islampur SD, except for those who find their way into the BPL lists. High fertility, accompanied by early marriage, high infant and maternal mortality and deep poverty are specific problems with high incidence among rural Muslims in Uttar Dinajpur. Unless these targeted RCH interventions can also reach out to the rural Muslim community, the desired results may not be achieved in Uttar Dinajpur.

Broad assessment of the adverse RCH situations that currently confront Uttar Dinajpur can be made by drawing parallel comparisons between RCH indicators for Uttar Dinajpur, West Bengal and India in the associated table. While the state averages for CBR and IMR in West Bengal now are well below the national averages, Uttar Dinajpur district records high CBR and IMR which substantially surpass both national and state figures. Since the association between the two rates is complementary, high child mortality and low child survival in the district act as underlying causes for high fertility. Attenuation of IMR in Uttar Dinajpur from its high current level thus holds the key towards lowering birth rates in the district. Terminal family planning [FP] across rural India is generally achieved through female sterilisation, since the proportion of men willing to undergo sterilisation after the family has reached terminal size is uniformly low. Although the same patterns hold true for Uttar Dinajpur, the proportion of women and men who adopt terminal FP is much lower in the district than in West Bengal or India, while West Bengal as a state too lags behind India in the adoption of terminal FP.

Delivery of antenatal care [ANC] during home visits by AWWs to prospective mothers is an important means of preventing birth complications and lowering IMR, through improved child survival. During these home visits, they are treated for pregnancy-related problems and also monitored for further complications, besides being counseled on appropriate nutrition and preventive healthcare, as well as postpartum and postnatal care. At least three visits to the local SHC should be made by the prospective mothers for antenatal checkups by the ANM, with referral to the PHCs if necessary. Empirical evidence shows that the incidence of postnatal infant mortality is almost halved among mothers who had received at least one ANC visit during each trimester of their pregnancy. In contrast to West Bengal where the proportion of expectant mothers receiving at least 3 ANC visits is much better than the national average, the coverage of expectant mothers in Uttar Dinajpur is substantially low. Administration of two tetanus toxoid [TT] injections to mothers during pregnancy is a proven means of preventing the transmission of tetanus to newborn infants, which is otherwise a major cause of neonatal deaths. Full TT coverage of expectant mothers in Uttar Dinajpur district almost touches the national average of 72 percent, but still falls way behind the state average. Since TT prophylaxis requires a visit to the SHC or village AWC, this nevertheless implies that a fairly substantial proportion of the eligible women in Uttar Dinajpur who have registered for ANC care do make two such visits even though the distances they have to cover are quite large.

With anaemia tending to be endemic among Indian women, administration of prenatal iron & folic acid [IFA] supplements for a period of 100 days to women following the first trimester of pregnancy in the form of oral pills or syrup fortifies expecting mothers to meet the increased iron demand during pregnancy. IFA supplementation during lactation has also been observed to have a strong impact in reducing postnatal infant mortality. However, IFA coverage has been a weak link in overall ANC performance in West Bengal and also in India as a whole. The long duration of the IFA treatment and the unpalatable nature of the pills that have to be taken is a primary cause for discontinuance of the treatment by expecting mothers. A switch over has therefore been made recently to the administration of IFA in the form of a syrup rather than in the

older tablet form. In India and West Bengal, IFA coverage through the medium of pills was limited to less than a quarter of the expectant mothers, while in Uttar Dinajpur, the coverage was lower than 10 percent.

Primarily because of this stumbling block in IFA administration, full coverage by the ANC-1 package comprising 3 ANC visits, 2 TT injections and 100 IFA pills in India declined to 16 percent of the expectant mothers and to the even lower level of 13 percent in West Bengal, despite much higher coverage levels in the case of ANC visits and TT prophylaxis. In Uttar Dinajpur, where coverage by ANC visits was also substantially low, the extent of coverage under the ANC-1 package declined to below 6 percent. The same differentiations between national, state and district coverage were maintained without much improvement in performance, in case of the ANC-2 package which includes the administration of IFA syrup in lieu of pills. The low extent of full ANC coverage in Uttar Dinajpur also carries the implication that a large proportion of the women and children in the district still remain open to RCH risks.

The incidence of institutional deliveries in Uttar Dinajpur was less than half of the levels achieved in West Bengal and India. The incidence of exclusive breastfeeding of infants by mothers in Uttar Dinajpur was relatively low at 17 percent, but improved on the state average and stood fairly close to the national average. While the proportion of children aged upto 3 years who had received the full course of immunisation under UIP in Uttar Dinajpur was once again very low compared to the national and state averages, the incidence of chronic malnutrition among children in the district reached the alarming level of 69 percent, well ahead of the averages for India and West Bengal. Also alarmingly, for a district where immigration and outmigration is rife, the proportion of women who were adequately informed about the causes of HIV/AIDS fell seriously short of the levels of HIV/AIDS awareness in West Bengal and India as a whole.

**Table: Status of Reproductive & Child Health Interventions in Uttar Dinajpur**

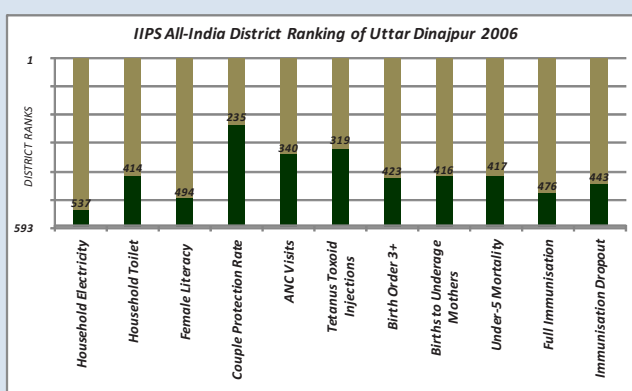
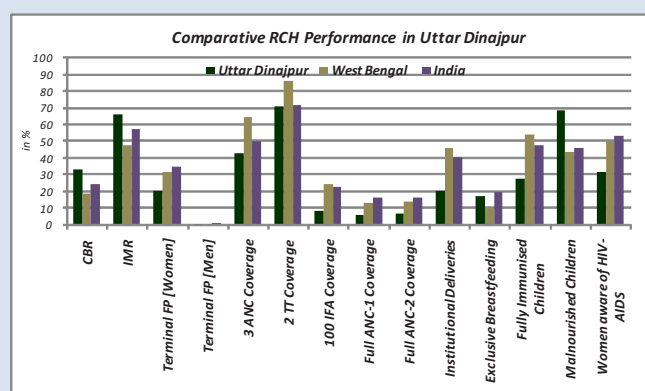
RCH Indicators	Uttar Dinajpur	West Bengal	India	Source
Crude Birth Rate [CBR] per 1000 population	32.9	18.8	23.8	<i>Health on the March, GoWB, 2005-06</i>
Infant Mortality Rate [IMR] per 1000 live births	66.0	48.0	57.0	<i>NFHS-3 &amp; Office of the CMoH, Uttar Dinajpur</i>
Proportion of Eligible Women Sterilised	20.1	31.6	34.3	<i>DLHS-RCH 2004</i>
Proportion of Eligible Men Sterilised	0.3	0.5	0.9	<i>DLHS-RCH 2004</i>
Mothers receiving at least 3 ANC visits	42.7	64.6	50.1	<i>DLHS-RCH 2004</i>
Mothers receiving at least 2 Tetanus Toxoid Injections during pregnancy	70.8	86.2	71.8	<i>DLHS-RCH 2004</i>
Mothers receiving at least 100 IFA Tablets during pregnancy <sup>2004</sup>	8.7	24.3	22.3	<i>NFHS-3 &amp; DLHS-RCH</i>
Mothers covered by Full ANC-1 package	5.8	13.4	16.0	<i>DLHS-RCH 2004</i>
[at least 3 ANC visits + at least 1 TT Injection + at least 100 IFA Tablets]				
Mothers covered by Full ANC-2 package	6.5	14.0	16.4	<i>DLHS-RCH 2004</i>
[at least 3 ANC visits + at least 1 TT Injection + at least 100 IFA Tablets/Syrup]				

**Table: Status of Reproductive & Child Health Interventions in Uttar Dinajpur**

Contd.

RCH Indicators	Uttar Dinajpur	West Bengal	India	Source
Proportion of Institutional Deliveries	20.6	46.3	40.5	DLHS-RCH 2004
Mothers exclusively breastfeeding infants aged 4-12m for at least 4 months	17.3	10.1	19.2	DLHS-RCH 2004
Children aged 12-35m received full immunisation	27.6	54.4	47.6	DLHS-RCH 2004
Proportion of Malnourished Children	69.0	44.0	46.0	NFHS-3 & ICDS Monthly Data
Proportion of Women aware about the causes of HIV-AIDS	32.0	50.2	53.6	DLHS-RCH 2004

Note: All figures except CBR &amp; IMR represent percentages



An understanding of where Uttar Dinajpur is currently positioned in terms of RCH-related indicators vis-à-vis other districts in India can be gleaned from the accompanying stacked bar-chart, which plots district rankings of Uttar Dinajpur against other districts on a number of RCH (NFHS) and general (Census) indicators. The district rankings are drawn from a recent IIPS study on socio-economic and demographic mapping of Indian districts executed in 2006 for MoHFW and the National Commission on Population. With two districts being eliminated because of data inadequacies, the rankings for Uttar Dinajpur are with respect to 593 Indian districts.

In terms of socio-economic attributes, Uttar Dinajpur ranks very low in the 414th and 537th position with respect to the availability of household amenities like sanitation and electricity, and occupies the 494th position with respect to female literacy. These ranks are all indicative of the overall backwardness and high rural poverty that characterise Uttar Dinajpur district. In the rankings of the RCH group of attributes, the position of Uttar Dinajpur advances to the 235th rank with respect to couple protection rate [CPR] i.e., the number of eligible couples who have adopted some form of contraception, to the 319th rank in the administration of TT injections and the 340th rank in ANC visits. For other RCH attributes, the rankings of the district are once again low, at 416th with respect to births to underage mothers below 20 years, at 417th with respect to under-5 child mortality, and 423rd with respect to the number of births of order 3 and above. The relative positioning of Uttar Dinajpur descends even further to the 476th rank with respect to the number of children who have received full immunisation, and the 443rd rank with respect to those who drop out before the full immunisation cycle is complete. Uttar Dinajpur is also the lowest performing West Bengal district in nearly all of these attributes.

In general, the number of expecting mothers registered for ANC services in Uttar Dinajpur greatly exceeds the actual number of mothers who received full ANC coverage. Significant differences are observed, however, between the regional extent of coverage provided by antenatal and postnatal health services in the different blocks of Uttar Dinajpur district. While over 81 thousand expecting mothers were registered for ANC services across the district in 2006-07, less than 53 percent of the women who had registered had received 3 ANC checkups and only 47 percent were receiving IFA supplements. Complete ANC coverage was better in Raiganj SD where 60 percent of the expecting mothers had received 3 checkups, but was distinctly low at 48 percent in Islampur SD which accounted for nearly 58 percent of total ANC registrations in the district. In terms of the gap between ANC registrations and complete ANC checkups, particularly low coverage of under 40 percent was recorded at Lodhan BPHC serving Goalpokhar-1 block, while the proportion of mothers receiving 3 ANC checkups was also under 50 percent in at Chakulia BPHC serving Goalpokhar-2 block. IFA coverage levels were generally low across the district, with less than 47 percent of the registered mothers receiving IFA supplements in both the Uttar Dinajpur sub-divisions. Against this district-wide trend however, IFA coverage extended to over 72 percent of the expecting mothers registered for ANC services under Dalua BPHC serving Chopra block. Commencing from 1969, post-partum centres [PPCs] were established at subdivisional and district hospitals across India under the All-India Hospital Post Partum Programme [AIHPPP] to provide holistic RCH and family welfare services to the population. Although the PPCs attached to Islampur SDH and Raiganj DH accounted 11,231 ANC registrations in 2006-07 or around 14 percent of the total ANC registrations in Uttar Dinajpur, their coverage rates in terms of follow-up services like ANC check-ups averaged below 25 percent and was thus much lower than at the BPHCs.

**Table: Provision of Antenatal & Postnatal Healthcare Services in Uttar Dinajpur, 2007**

CD Block Health Unit	Total ANC Registrations	Women receiving 3 ANC Checkups	Women receiving IFA pills/supplement	High-risk Case Detection at PHC	High-risk Case Detection at BPHC /RH	High-risk Case Detection at SDH/SGH	High-risk Case Detection at DH	Total High-risk Case Referrals	Women receiving 3 PNC Checkups
Chopra/Dalua	8198	4176	5906	-	207	-	-	195	4721
Islampur	7743	4534	4088	-	-	-	-	-	5350
<i>Islampur PPC</i>	3969	994	622	-	-	896	-	-	498
Goalpokhar-1/Lodhan	9397	3753	3749	-	883	-	-	102	3347
Goalpokhar-2/Chakulia	6438	3098	2591	-	619	-	-	292	2627
Karandighi	11118	6095	5161	-	291	-	-	291	4500
Raiganj	10009	6647	4756	501	-	-	-	321	6211
<i>Raiganj PPC</i>	7262	1684	2372	-	-	-	150	-	2435
Hemtabad	3259	1743	788	-	87	-	-	87	2331
Kaliaganj	5568	3787	2641	22	-	487	-	207	3066
Itahar	8113	6332	5635	248	-	-	-	259	5183
<b>Uttar Dinajpur DT</b>	<b>81074</b>	<b>42840</b>	<b>38306</b>	<b>771</b>	<b>2087</b>	<b>1383</b>	<b>150</b>	<b>1754</b>	<b>40291</b>

Source: Office of the CMoH, Uttar Dinajpur



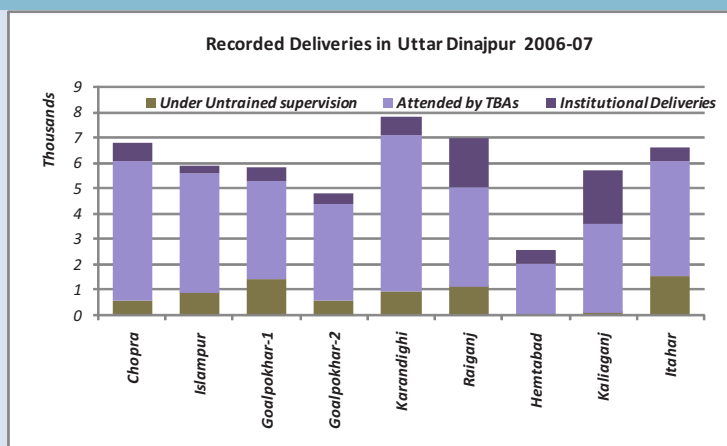
Besides, monitoring the general health of expecting mothers and their unborn children, ANC checkups are primarily conducted under the RCH programme to identify high-risk pregnancies which require specialised obstetric care. Total high-risk case detections in Uttar Dinajpur in 2006-07 amounted to 4391 cases. Assuming that all 81,074 expecting mothers who had registered for ANC services had undergone at least one ANC checkup to screen for pregnancy complications, the occurrence rate for high-risk pregnancies in the district as a whole thus amounted to 5.4 case detections per 100 ANC registrations. However, with no case detections occurring at PHC level in 6 blocks including all of Islampur SD, the PHCs in the district accounted for only 771 case detections, mostly in Raiganj and Itahar. Thus the bulk of high-risk case detections occurred either at BPHC/RH or SGH/SDH level. In relation to ANC registrations, the rates of high-risk case detection exceeded 9 per 100 registrations in Goalpokhar-1, Goalpokhar-2 as well as Kaliaganj, but were around 3 per 100 registrations in Chopra, Karandighi, Hemtabad and Itahar blocks, thus showing high variability across the district. Around 40 percent of the cases detected upto SDH/SGH level were followed subsequently by referrals to better equipped obstetric facilities and ultimately to the PPCs at Islampur and Raiganj. Thus in addition to the 150 high-risk cases directly detected at Raiganj DH, the Raiganj DH PPC also handled a large volume of high risk pregnancies that came up to it through the referral system.

Obviously, however, the detection of high-risk pregnancies in Uttar Dinajpur is heavily obstructed by the low rates of birth registration, birth institutionalisation and complete ANC monitoring in the district, as well as the relative isolation of rural communities which hinders the accessibility of emergency services. This is reflected in the low rates of case detection and referrals from the PHCs, which in normal circumstances should be the first point where such cases are detected and screened. No high-risk case detections or referrals whatsoever were reported from the 10 PHCs that serve the Islampur SD blocks, indicating that the task of screening such cases was being performed by the BPHCs. Since rural connectivity is poorest in these blocks, which collectively account for nearly 60 percent of the district population and total ANC registrations in the district, the performance of these PHCs urgently needs to be strengthened and improved.

**Table: Institutionalised & Attended Deliveries in Uttar Dinajpur, 2007**

CD Block	Total Recorded Deliveries	Total Recorded Home Deliveries	Deliveries Attended by Untrained Persons	Deliveries Attended by Trained Attendants	Deliveries Attended by ANM/LHV	Total Institutional Deliveries	% Safe Deliveries
Chopra	6758	6089	583	5506	-	669	91.4
Islampur	6258	5926	925	4634	367	332	85.2
Goalpokhar-1	5813	5281	1414	3867	-	532	75.7
Goalpokhar-2	4820	4388	578	3808	2	432	88.0
Karandighi	7792	7089	960	6129	-	703	87.7
Raiganj	6973	5011	1167	3844	-	1962	83.3
Hemtabad	2558	2029	39	1990	-	529	98.5
Kaliaganj	5710	3577	131	3446	-	2133	97.7
Itahar	6584	6057	1546	4511	39	527	77.1
<b>Uttar Dinajpur DT</b>	<b>53266</b>	<b>45447</b>	<b>7343</b>	<b>37735</b>	<b>408</b>	<b>7819</b>	<b>86.3</b>

Source: Office of the CMoH, Uttar Dinajpur



## Safe Delivery Services, Maternal Mortality & Infant Mortality

In addition to existing infrastructural deficiencies within the healthcare system, other weaknesses in RCH service delivery in Uttar Dinajpur stem from pervasive ignorance among rural segments of the population about RCH services provided through the public healthcare system as well as the adverse perceptions that persists among certain sections about poor investigative facilities, unsuitable timings, inadequate availability of drugs and indifferent attitudes among Government healthcare personnel. Emergency obstetric care is unavailable at primary health facilities, median distances from villages to properly equipped obstetric hospitals are very high in most rural regions of the district, and weak public transportation and the virtual absence of ambulance services, make it extremely difficult for rural women to reach hospitals at critical times for deliveries. All these factors have an important role in reducing the access of rural women to safe delivery services in the district.

While less than 15 percent of the deliveries recorded in Uttar Dinajpur in 2007 took place at public healthcare facilities, nearly 38 thousand non-institutional deliveries were recorded under the supervision of trained traditional birth attendants [TBAs], raising safe delivery coverage to over 86 percent of the officially recorded deliveries in the district. From such official figures, the extent of safe delivery coverage in the district would seem fairly adequate. However, since only Raiganj, Kaliaganj and Hemtabad accounted for high levels of institutionalisation exceeding 20 percent of recorded deliveries while the other Uttar Dinajpur blocks recorded institutionalisation levels well below 10 percent, it is seen that safe delivery services in the district primarily rest on the presence of TBAs. Despite the fact that Medical Officers [MOs] and ANMs are posted to all PHCs in Uttar Dinajpur, their role in extending safe delivery services is close to negligible, except perhaps in Islampur, because the MOs are unavailable around the clock while the ANMs are generally untrained in essential obstetric care. In these circumstances, the role of the public healthcare system in promoting safe deliveries in the district is still far from satisfactory.

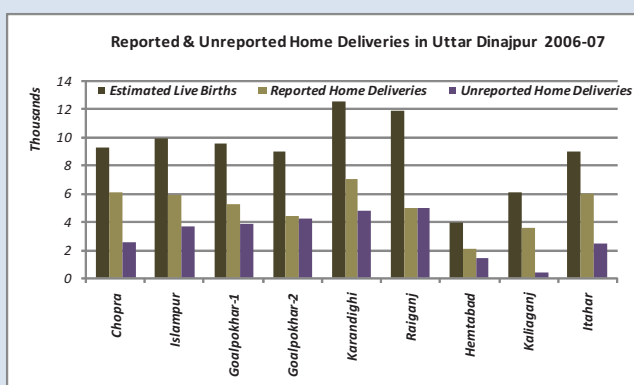
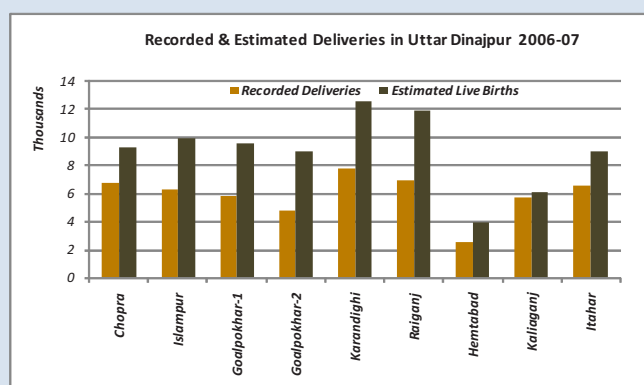
Gross under-reporting of non-institutional deliveries is a major problem which continues to persist strongly in Uttar Dinajpur. The scale of this can be gauged from the evidence that only 53,266 deliveries were officially recorded in the district in 2007 against 81,074 ANC registrations in the same year. The District Health Plan for 2007-08 thus candidly admits that the true number of births occurring annually in the district would exceed 84 thousand on the basis of population projections, indicating the seriousness of the problem. Underreporting of births also vitiates the targeting of several other RCH programmes including immunisation, nutrition and maternity health services, by indicating misleading orders of coverage for the district. Since after applying a correction based on fertility rates from Census figures, the estimated number of deliveries in Uttar Dinajpur in 2006-07 rises to 81,526, while safe delivery coverage declines to around

56 percent of live births for the district as a whole. Presumably, therefore, at least 28 thousand additional home deliveries occur every year in unsafe conditions, without supervision from trained personnel, revealing the poor state of safe delivery coverage in the district.

**Table: Birth Projections & Estimation of Unrecorded Deliveries in Uttar Dinajpur, 2006**

CD Block	Estimated Live Births	Unreported Home Deliveries	% Unrecorded Home Deliveries	Adjusted % Safe Deliveries
Chopra	9293	2535	27.3	66.4
Islampur	9950	3692	37.1	53.6
Goalpokhar-1	9624	3811	39.6	45.7
Goalpokhar-2	9063	4243	46.8	46.8
Karandighi	12601	4809	38.2	54.2
Raiganj	11945	4972	41.6	48.6
Hemtabad	3947	1389	35.2	63.8
Kaliaganj	6110	400	6.5	91.3
Itahar	8990	2406	26.8	56.5
<b>Uttar Dinajpur DT</b>	<b>81526</b>	<b>28260</b>	<b>34.7</b>	<b>56.4</b>

Source: Projected from Fertility Rates derived from Census, 2001



As can be seen from the projections, the proportion of unrecorded deliveries is high in all Uttar Dinajpur blocks except Kaliaganj. As a consequence, block-wise declines in adjusted safe delivery coverage rates in the other Uttar Dinajpur blocks range from -20 percentage points (Itahar) to 41 percentage points (Goalpokhar-2). The projections in all Uttar Dinajpur blocks except Kaliaganj show a relatively large number of unreported home deliveries, which are almost equal to the number of reported home deliveries in Goalpokhar-2 and Raiganj. The proportion of unreported to recorded home deliveries is obviously much higher in the Islampur SD blocks than in Raiganj SD, revealing that the weaknesses in public healthcare system in these blocks extends into the provision of safe maternity services. Thus Uttar Dinajpur still has to traverse a long distance before the rural population is protected adequately against maternity risks.

Besides, other inducing factors such as low literacy and social and economic backwardness, low access women living in the rural areas of Uttar Dinajpur to RCH, safe delivery and general healthcare services ties in with the prevalence of high infant mortality rates [IMRs] and maternal mortality rates [MMRs] in the district. While accurate district and subdistrict level estimates of MMR are difficult to come by, IIPS sources based on birth history data from the RCH survey estimate IMR in Uttar Dinajpur district at 68 per 1000 live births, which is much higher than the corresponding IMRs of 48 for West Bengal and 57 for India as a whole. Clearly, the national goal of reducing IMR to less than 30 per 1000 live births and MMR from its current level of 301 per 100,000 live births in India and 194 in West Bengal to below 100 per 100,000 live births by the year 2010, requires heightened focus on improving RCH and safe delivery services in Uttar Dinajpur, which is one of the poorest performing districts in the country in this respect.

Official records collected from public maternity facilities in Uttar Dinajpur report the occurrence of 103 obstetric deaths during the year 2006-07. When evaluated against the 53,266 live births recorded in the district during the same year, the rough estimate of MMR in Uttar Dinajpur from official data sources would be around 193 per 100,000 live births, and would probably be much higher if account was also taken of unreported live births and maternal deaths in the district. While 40 percent of the recorded maternal deaths occurred during the term of pregnancy, 30 percent occurred during delivery and another 30 percent during the postpartum period. The overwhelming majority of antepartum obstetric deaths took place at the Raiganj and Islampur PPCs, in contrast to which the death record at the BPHCs was low, showing that the two PPC facilities were being widely used for referral of cases where pregnancy related complications had assumed life-threatening proportions. However, since the screening of expecting mothers through complete ANC checkups in the district suffers from serious limitations, the gravity of the problem of antenatal complications leading to maternal deaths is probably greater than these figures would suggest. Nearly 60 percent of the recorded maternal deaths in the district occur during and after delivery. Once again, the incidence of maternal deaths during unattended and unreported home deliveries is not adequately reflected in these official figures. While with a better healthcare network and better screening rates, the Raiganj SD blocks account for a majority of prenatal and postpartum maternal deaths, the lower reported incidence in the Islampur SD blocks probably masks much higher incidence of unreported maternal deaths in rural areas within these blocks, where fertility is very high, communication is difficult and existing maternity facilities are rudimentary at best. Posing a notable contrast to the rates of institutional deliveries and other maternity services which are largely accessed at the PPCs, the remarkably high incidence of medical termination of pregnancy [MTP] distributed across most blocks of Uttar Dinajpur appears to indicate that maternal care services at most BPHCs are being availed as a last resort for contraception, especially in the Islampur SD blocks, although at great detriment to women's health situations in Uttar Dinajpur.

**Table: Maternal and Infant Mortality in Uttar Dinajpur, 2007**

CD Block/Health Unit	Maternal Deaths during Pregnancy	Maternal Deaths during Delivery	Maternal Deaths within 6wks of Delivery	MTP Cases	Infant Deaths < 1wk	Infant Deaths 1wk-1mth	Infant Deaths 1mth-1yr	Infant Deaths 1yr-5yrs
Chopra/Dalua	2	5	4	133	43	13	17	14
Islampur	-	-	-	-	-	-	-	-
Islampur PPC	14	10	10	185	172	35	64	76
Goalpokhar-1/Lodhan	1	1	-	117	52	12	20	22
Goalpokhar-2/Chakulia	1	-	-	32	3	2	-	-
Karandighi	1	-	-	151	48	20	16	18
Raiganj	4	3	7	116	59	30	13	14
Raiganj PPC	15	-	7	106	161	46	58	68
Hemtabad	-	-	-	8	3	-	-	-
Kaliaganj	1	9	3	57	83	30	26	21
Itahar	2	3	-	51	75	20	12	24
<b>Uttar Dinajpur DT</b>	<b>41</b>	<b>31</b>	<b>31</b>	<b>956</b>	<b>699</b>	<b>208</b>	<b>226</b>	<b>257</b>

Source: Office of the CMoH, Uttar Dinajpur

Neo-natal mortality within the first week of birth accounts for over 61 percent of the recorded deaths among infants below the age of 1 year in Uttar Dinajpur, in keeping with prevalent patterns of early marriage and early maternity, high frequency of fertility and limited access to safe obstetric supervision and newborn care which prevail within the district. The high occurrence of neonatal mortality across India is generally associated either with complications arising during labour including trauma and birth asphyxia and trauma, with problems that occur at the peripartum stage such as transmitted infections like tetanus and low birth weight [LBW] of the newborn, or with hypothermia and respiratory and feeding problems during the early postpartum stage. Efforts to reduce rural neonatal mortality generally take a longer time to achieve results, because these are tied more directly to the adequacy of obstetric and paediatric services. Low detection rates of high-risk pregnancies also contribute to the high incidence of neonatal infant deaths.

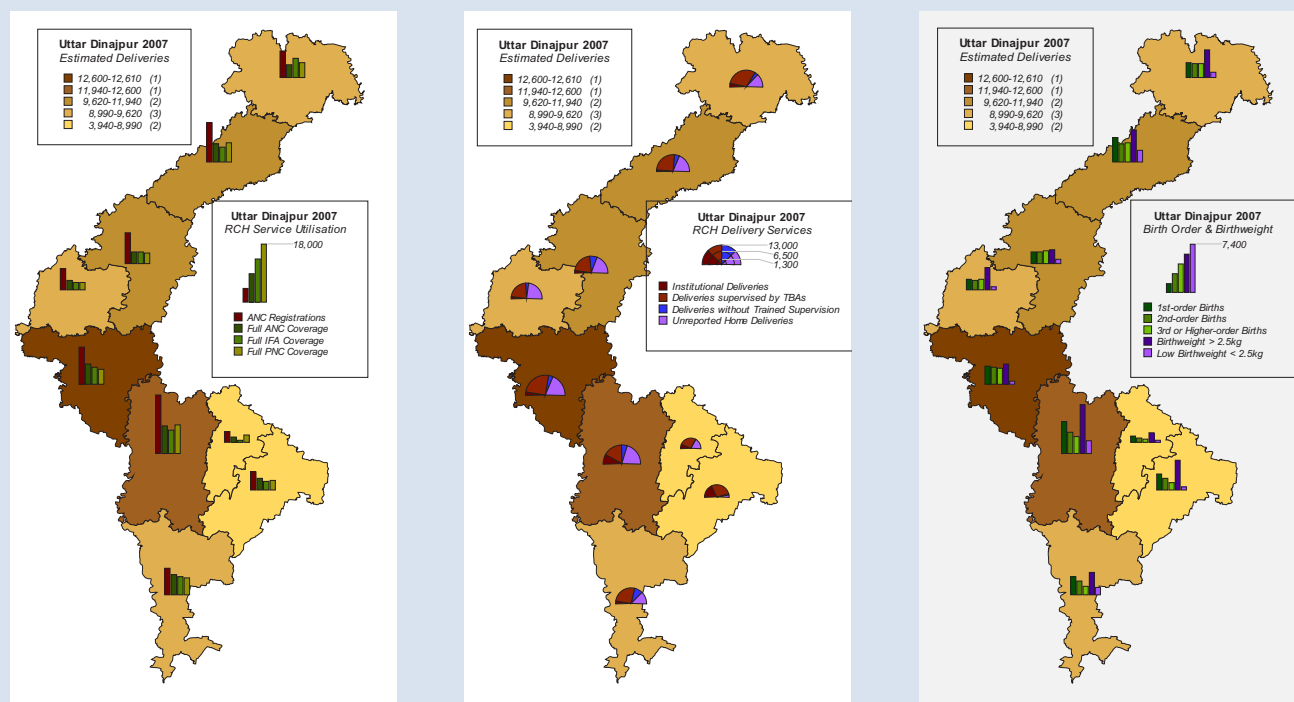
Nearly 48 percent of the early neo-natal infant deaths reported in Uttar Dinajpur district in 2006-07 occurred at the PPCs at Islampur and Raiganj. The remaining deaths generally occurred at the BPHCs/RH/SGH, with the Raiganj SD blocks accounting for around 55 percent of recorded neonatal deaths. Once again though, it would seem likely that with the low rates of institutionalisation and high incidence of unreported home deliveries occurring in unsafe conditions in Uttar Dinajpur, a large proportion of the early neonatal deaths that actually occur in the remote villages within Islampur SD would be going unreported. The Raiganj SD blocks also record 60 percent of the recorded neonatal infant deaths occurring between the age of 1 week and 1 month, while the Islampur SD blocks account for the majority of post-neonatal infant and child deaths occurring between the age of 1 month and 5 years. Besides low access to preventive and clinical healthcare, this would also point towards lower rates of immunisation and the higher prevalence of malnutrition and infective diseases like diarrhoea among infant children in the Islampur region, which are major contributors to the incidence of post-neonatal deaths. Besides incomplete recording of pregnancies, underreporting of births and infant deaths are however a primary cause of the unreliability of IMR statistics in Uttar Dinajpur, especially at sub-district level.

## Table: Birth Order & Birth Weights of Infants in Uttar Dinajpur, 2007

CD Block/ Health Unit	Total Delive sries	Live Birth- sries	Births Order 1st	Births Order 2nd	Births Order 3rd/3+	%Births Order 1st	%Births Order 2nd	% Births Order 3rd/3+	Low weight Births <2.5kg	Normal weight Births >2.5kg	% Low weight Births <2.5kg	%Normal weight Births T> 2.5 kg
Chopra/Dalua	6763	6701	2298	2235	2230	34.0	33.0	33.0	976	4228	18.8	81.2
Islampur	6056	5985	1939	1828	2231	32.3	30.5	37.2	867	2379	26.7	73.3
Islampur PPC	3531	3283	1735	887	764	51.2	26.2	22.6	924	2377	28.0	72.0
Goalpokhar-1 /Lodhan	5909	5845	1926	1841	2041	33.2	31.7	35.1	845	2133	28.4	71.6
Goalpokhar-2 /Chakulia	4886	4849	1732	1488	1659	35.5	30.5	34.0	680	3336	16.9	83.1
Karandighi	7783	7741	2793	2548	2442	35.9	32.7	31.4	550	3125	15.0	85.0
Raiganj	6814	6756	2321	2315	2176	34.1	34.0	31.9	987	4481	18.1	81.9
Raiganj PPC	3966	3731	2468	982	516	62.2	24.8	13.0	1037	2824	26.9	73.1
Hemtabad	2584	2558	1065	809	611	42.9	32.6	24.6	537	1510	26.2	73.8
Kaliaganj	5723	5628	2499	1823	1277	44.6	32.6	22.8	650	4436	12.8	87.2
Itahar	6553	6527	2815	2106	1454	44.2	33.0	22.8	1201	3409	26.1	73.9
<b>Uttar Dinajpur DT</b>	<b>60568</b>	<b>59604</b>	<b>18012</b>	<b>18862</b>	<b>17401</b>	<b>33.2</b>	<b>34.8</b>	<b>32.1</b>	<b>9254</b>	<b>34238</b>	<b>21.3</b>	<b>78.7</b>

Source: Office of the CMOH, Uttar Dinajpur

## MAP: Regional Patterns of Fertility & Delivery of RCH Services in Uttar Dinajpur



While early marriage and early fertility continue to be a prominent rural characteristic in Uttar Dinajpur district, the lack of access to modern contraception and RCH services are an additional reason for high frequency of pregnancies as well as high-order births. Close to a third of the total live births recorded in the district thus represented births of order 3 or even higher, reflecting large family-sizes. High-order births were predominant particularly in Islampur SD, where at least 30 percent of the births reported from the BPHCs and Karandighi RH and 37 percent of the births recorded at Islampur SDH represented 3rd or higher-order births. Under Raiganj SD in contrast, only Raiganj recorded high-order births of similarly high frequency. High-order births are generally also associated with the incidence of low birthweight [LBW] and with the subsequent frequency of neonatal and post-neonatal mortality among infants. Since the incidence of LBW births also closely reflects the state of health of mothers, high LBW rates exceeding 26 percent in Islampur, Goalpokhar-1, Raiganj, Hemtabad and Itahar are indicative of the wide persistence of anaemia and low nutrition levels among women, which make early marriage and early pregnancy a major health risk. Since the provision of ANC checkups and IFA diet supplements during pregnancy under the RCH programme is principally meant to offset such health-risks, this offers further evidence of the limited impact of RCH services in improving maternal & child health in many parts of rural Uttar Dinajpur. Tragically, it also becomes apparent that high infant and maternal mortality in the district is largely avoidable, and could have been lessened considerably if better maternal & child health standards had been maintained.

The major gender healthcare problems associated with the current maternal & child health situation in Uttar Dinajpur become abundantly clear from the accompanying regional maps. First of all, ANC registration is highly uneven across the district, leading to substantial under registration and subsequent underreporting of births in the populous blocks of Islampur SD. Secondly, while one-off services like tetanus toxoid inoculations are better delivered, the actual coverage provided by ANC and PNC services and IFA supplementation which need to be sustained over a period of time is highly inadequate compared to the number of ANC registrations, reducing the positive impact of the RCH programme. RCH performance improves in relative terms in Hemtabad, Kaliaganj and Itahar, but poses a major problem in the rest of the Uttar Dinajpur blocks. Excepting Kaliaganj block, the estimated incidence of unreported home deliveries is high throughout the district, leading in turn to under targeting of essential RCH services. The rate of institutionalisation of deliveries is extremely low, particularly in the Islampur SD blocks and Itahar, so that the onus of providing safe delivery services is largely borne by TBAs. Even so, close to half the recorded and unreported deliveries in most blocks of Uttar Dinajpur take place without any form of qualified supervision, leading to the heightening of obstetric and neonatal mortality. Neonatal and post-natal infant mortality risks are compounded by the relatively high incidence of LBW and high-order births through several blocks of Uttar Dinajpur. Throughout the Islampur SD blocks, the incidence of births of third and higher order is nearly as high as the incidence of 1st and 2nd order births, and in fact exceeds the latter in the Muslim-dominated blocks of Islampur, Goalpokhar-1 and Goalpokhar-2, showing that the persistence of high fertility and low child survival in these blocks is directly related to poorer RCH coverage.

### ICDS Coverage in Uttar Dinajpur

As stated earlier, the ICDS programme implemented by the Women & Child Development Department of MHRD is designed to offer holistic healthcare, nutritional and child development services to three key target sections within the rural population, namely preschool children, expecting and nursing mothers and adolescent girls. Since its inception, the targeting of ICDS has been primarily focused towards backward areas with a high concentration of socially backward sections such as SCs and STs. While more than half of the 1477 inhabited villages in Uttar Dinajpur are currently classified as backward, three-fourths of these

are located in the five Islampur SD blocks, and are concentrated particularly in Goalpokhar-1, Goalpokhar-2 and Karandighi blocks. While the Islampur SD blocks also account for over 80 percent of the functional AWCs in Uttar Dinajpur, with over 2 lakh eligible preschool-age children and nearly 0.9 lakh eligible pregnant and nursing mothers in 2006, current coverage under the ICDS programme only extended to 45 percent of the eligible children and one-third of the eligible women in Islampur SD. In Chopra block, ICDS services had been extended to less than 30 percent of the eligible mothers and children, while in Goalpokhar-2, they only covered around 14 percent of the eligible children and less than 8 percent of the eligible women. Posing a sharp contrast, in the Raiganj SD blocks which collectively accounted for one-fourth of the backward villages in Uttar Dinajpur, ICDS coverage had been extended to 62 percent of the eligible children and 69 percent of the eligible mothers, further compounding existing healthcare disparities between the two Uttar Dinajpur subdivisions. Thus the best levels of ICDS coverage were found under Raiganj SD, extending to 72 percent of the eligible children in Kaliaganj block and 75 percent of the eligible mothers in Raiganj block, primarily because the size of the eligible population in the Raiganj SD blocks was much smaller than in Islampur SD.

Two other programmes currently being implemented under ICDS are the Kishori Shakti Yojana [KSY] targeted towards training and educating rural adolescent girls to improve their general health awareness and offset early marriage and early motherhood, and the Positive Deviance [PD] nutrition programme, which seeks to improve the nutritional status of rural children by wider propagation of the best local nutritional practices that have been evolved by certain progressive households within the local community. However, as can be seen from the table, the coverage under KSY and PD programmes is still too low compared to the size of the target population in the district, to yield tangible dividends in the form of substantive improvement in the maternal and child health situations. Blockwise coverage under these programmes is still uneven, with the PD programme being primarily concentrated in the Raiganj and Itahar blocks, while KSY largely overlooks Hemtabad and Kaliaganj blocks.

Till the implementation of the 2006 order of the Supreme Court on the universalisation of ICDS across the country, expansion of ICDS in Uttar Dinajpur had been extremely slow despite the high extent of poverty and nutritional and MCH deprivation in the district, leaving large segments of the rural population unserved by ICDS services. Subsequently, with the addition of 750 new AWCs in just one year between 2006-07 in compliance with the Supreme Court directive, the total number of AWCs in Uttar Dinajpur has now risen to 2334 centres. Rapid expansion of ICDS through the establishment of a large number of new AWCs within a compressed span of time has obviously placed enormous pressure on the physical resources available to the ICDS system. Only 13 percent of the 1456 AWCs in existence in 2006-07 functioned from their own built-up premises while the overwhelming majority functioned from open sheds. Hemtabad and Kaliaganj were the only blocks where all AWCs functioned from built-up premises, with the shortfall in AWC buildings being made up through the use of rented premises. Since the AWCs in Islampur SD mainly functioned from temporary structures, adequate provision of ICDS services was difficult. Only 23 percent of the AWCs in the district had access to proper drinking water facilities, the overwhelming majority of these being located in Islampur block. Sanitation coverage at the AWCs was close to negligible at just over 2 percent, confined only to Kaliaganj and Karandighi blocks. Without adequate levels of funding for building ICDS infrastructure, it is therefore unlikely that the ICDS programme in Uttar Dinajpur can achieve the same results as it has in other advanced districts. Thus the universalisation of ICDS in Uttar Dinajpur will not have the intended impact, without equivalent funding and resource commitment by MHRD. Paradoxically, within its given demographic and socioeconomic contexts, Uttar Dinajpur has the greatest need of ICDS services which are probably served by the weakest ICDS infrastructure in West Bengal.



**Table: Coverage of Children, Adolescent Girls & Women by ICDS Schemes in Uttar Dinajpur, 2006**

CD Block	Backward Villages	Operational Anganwadi Centres [AWCs]	Eligible Children (0-6y)	Children (0-6y) covered by ICDS	Eligible Pregnant & Nursing Mothers	Pregnant & Nursing Mothers covered	Adolescent Girls covered by Kishori Shakti Yojana[KSY]	Adolescent Girls trained under KSY	Children covered by Positive Deviance Nutrition
Chopra	71	173	35776	9929	4773	1382	160	160	-
Islampur	79	184	38311	17889	5340	3056	239	239	-
Goalpokhar-1	118	243	43849	24122	7489	3691	na	245	-
Goalpokhar-2	172	244	36460	4980	18000	1319	220	220	9
Karandighi	167	325	46165	32930	6592	4593	281	281	12
Raiganj	78	152	22238	13606	3463	2609	285	245	133
Hemtabad	5	5	770	479	175	126	12	12	-
Kaliaganj	32	34	6543	4710	884	574	37	37	27
Itahar	81	96	14798	8752	2586	1625	na	250	276
U Dinajpur DT	803	1456	244910	117397	49302	18975	na	1689	457

Source: District Programme Officer, ICDS, Uttar Dinajpur

## WOMEN'S EMPOWERMENT IN UTTAR DINAJPUR

### Economic Role of Women in Uttar Dinajpur

Although the growing participation of women in economic activities is considered as important instrument for the empowerment of women, women workers constitute a segregated segment within the labourforce that is distinctly sensitive to the sociocultural and economic milieu within which gender work-roles are assigned. Women's work participation is generally higher in rural regions than in urban areas. However, this is not sufficient indication in itself lead of greater empowerment among rural women, who suffer from additional gender handicaps such as lower literacy and educational levels as well as from the joint impact of prejudiced social norms and conservative traditional values which limit the free entry of women into rural labour markets. Because of higher educational levels, urban women are less constrained by these traditional gender prejudices, but find less scope to enter the urban labourforce because of highly gender-specific differences in the work opportunities open to men and women in urban areas. Both in urban and rural families therefore, men traditionally occupy the role of principal earners, while the employment of women is generally visualised as a means for bridging critical resource gaps and expanding the joint earnings of households, rather than as a source for primary earnings over which women workers can retain autonomous control. Thus, higher work participation among women from rural households is strongly associated with the lower income of these households, and results in higher engagement of rural women in wage employment. In India, high work participation is generally seen among women from low-income rural households and involves occasional wage-activity rather than full-time permanent work.

A little more than 38 percent of the district population in Uttar Dinajpur was engaged in economic work in 2001. Work participation rates [WPRs] in the district also followed the typical pattern of high rural WPR (39.2%) relative to urban WPR (31.8%) and high male WPR (51.9%) relative to female WPR (23.8%).

Access to economic work opportunities vary considerably between the different blocks of the district. However, work participation for both male and female workers was higher in the Raiganj SD blocks than in the Islampur blocks, primarily on the strength of greater opportunities for women to engage in economic activity. Female WPRs invariably exceeded 25 percent in throughout Raiganj SD, touching a high of nearly 37 percent in Itahar block, but were well below 17 percent in the Islampur SD blocks with the exception of Goalpokhar-1 and Karandighi. Thus with just over a third of the district population, the rural and urban areas in Raiganj SD collectively accounted for 40 percent of the district workforce and nearly 47 percent of the female workforce in Uttar Dinajpur.

Representing the most populous region in the district, Raiganj municipality and its rural periphery held over a fifth of the working population in the district and just under 20 percent of the female workforce in 2001. Itahar and Goalpokhar-1 blocks, each with around 10 percent of the district population, offered better work opportunities to rural women, accounting for well over 15 percent of the female workforce in each case. With less than 13 percent of the district population, Karandighi block too offered good opportunities for economic engagement to women workers and consequently held more than 15 percent of the female workforce in the district. Female work participation was distinctly low in the Muslim-dominated blocks of Chopra, Islampur and Goalpokhar-2 which held just over 28 percent of the district population and close to 39 percent of the Muslim population of Uttar Dinajpur but only accounted for 18 percent of the aggregate female workforce. However, low female work participation in these blocks was not a cultural characteristic specific to Muslim-dominated areas, but was dictated instead by other predisposing factors such as the dominant forms of economic activity in these particular blocks. Other Muslim-dominated blocks like Karandighi and Goalpokhar-1, which hold between 14 to 16 percent of the Muslim population of Uttar Dinajpur, recorded much higher female WPRs. Female work participation was similarly high in Itahar, which holds around 11 percent of the Muslim population in Uttar Dinajpur. Since male WPRs too were relatively high in these three blocks, the high rates of female work participation reflected an economic response from women workers in order to supplement the earnings of poor rural households.

**Table: Gender Work Participation Rates in Uttar Dinajpur District, 2001**

CD Block/Town	Total Population	Male Population	Female Population	Total Workers	Total Male Workers	Total Female Workers	Total WPR [%]	Male WPR [%]	Female WPR [%]
Chopra	223022	115097	107925	70093	55228	14865	31.4	48.0	13.8
Islampur	241951	124263	117688	79208	60751	18457	32.7	48.9	15.7
Goalpokhar-1	245430	126465	118965	108170	68623	39547	44.1	54.3	33.2
Goalpokhar-2	226472	116758	109714	75368	57697	17671	33.3	49.4	16.1
Karandighi	304986	156430	148556	120332	77583	42749	39.5	49.6	28.8
Raiganj	347108	178919	168189	139013	94728	44285	40.0	52.9	26.3
Hemtabad	118822	61192	57630	48014	33581	14433	40.4	54.9	25.0
Kaliaganj	190019	97805	92214	86162	56368	29794	45.3	57.6	32.3
Itahar	249541	127295	122246	115623	71010	44613	46.3	55.8	36.5

**Table: Gender Work Participation Rates in Uttar Dinajpur District, 2001**

Contd.

CD Block/Town	Total Population	Male Population	Female Population	Total Workers	Total Male Workers	Total Female Workers	Total WPR [%]	Male WPR [%]	Female WPR [%]
Uttar Dinajpur Rural	2147351	1104224	1043127	841983	575569	266414	39.2	52.1	25.5
Islampur M	52738	28145	24593	15858	13631	2227	30.1	48.4	9.1
Dalkhola M	13895	7381	6514	3714	3435	279	26.7	46.5	4.3
Raiganj M	165212	87458	77754	52508	43295	9213	31.8	49.5	11.8
Nachhratpur-Katabari CT	5113	2684	2429	1889	1439	450	36.9	53.6	18.5
Kasba CT	9835	5245	4590	3303	2852	451	33.6	54.4	9.8
Kaliaganj M	47650	24600	23050	16269	13456	2813	34.1	54.7	12.2
Uttar Dinajpur Urban	294443	155513	138930	93541	78108	15433	31.8	50.2	11.1
<b>Uttar Dinajpur DT</b>	<b>2441794</b>	<b>1259737</b>	<b>1182057</b>	<b>935524</b>	<b>653677</b>	<b>281847</b>	<b>38.3</b>	<b>51.9</b>	<b>23.8</b>

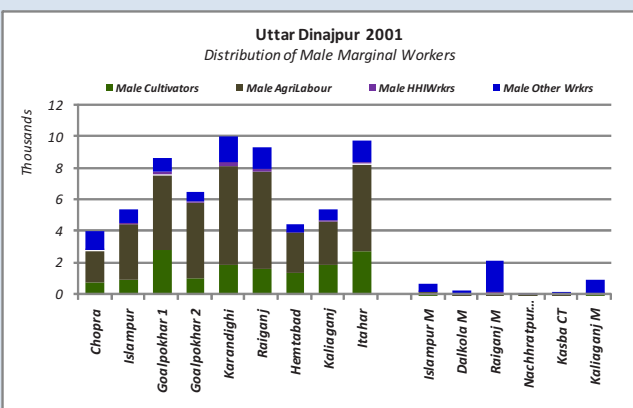
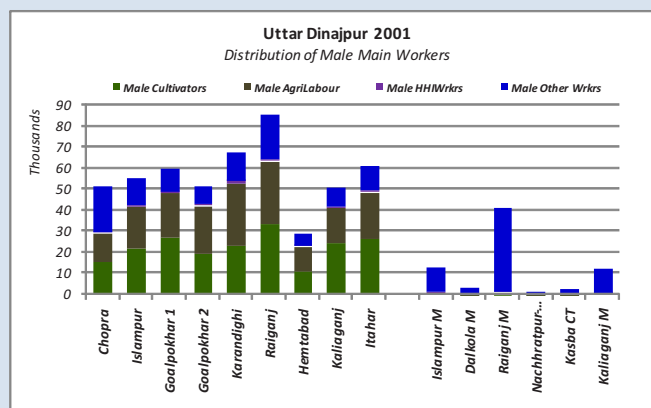
Source: Census, 2001

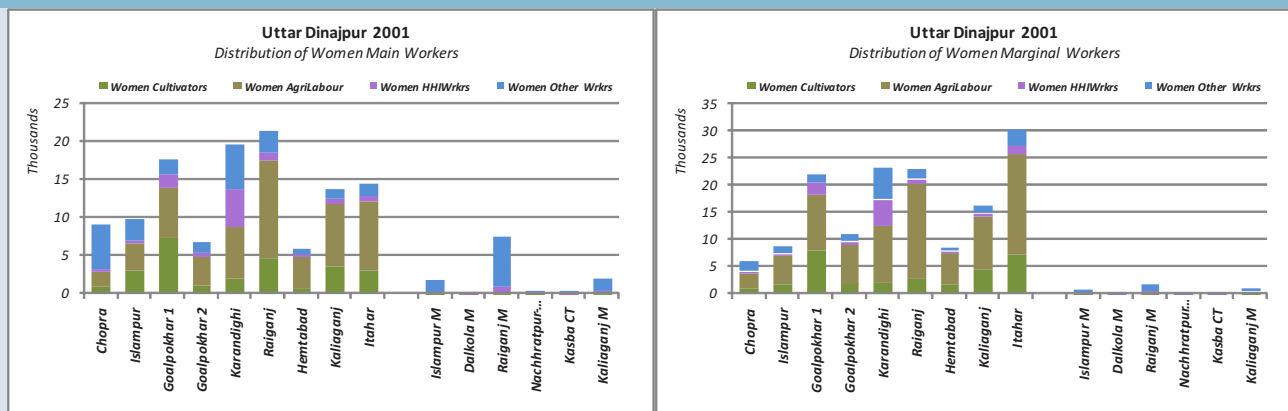
Work participation in Indian census data is classified under two major categories. By definition, workers engaged in some form of economic activity for a period of 183 days (6 months) or more in the year preceding the Census are classified as main workers, while others who had worked for shorter durations are listed as marginal workers. The dominant economic status of males as principal earners is borne out by their dominant presence within the main workforce in Uttar Dinajpur, where male main workers constituted nearly 61 percent of the rural workforce and 79 percent of the urban workforce in 2001. Women main workers, on the other hand, comprised only around 14 percent of the rural and urban workforce in the district. While male main workers thus outnumbered male marginal workers in the ratio 8:1 in the rural areas of Uttar Dinajpur, the female workforce in rural areas was dominated instead by marginal workers who outnumbered female main workers in the ratio 1.2:1. While the opportunities for main work were wider in urban areas because of the multiplicity of non-farm activities, the resulting employment benefits accrued primarily to males. At the same time, the opportunities for finding marginal employment work were heavily constrained by the absence of farm based activities in urban areas. Thus, while male main workers outnumbered male marginal workers in the ratio 17.4:1 within the urban workforce in Uttar Dinajpur, women main workers too outnumbered women marginal workers in the urban workforce, in the ratio 3.6:1, despite the low overall female WPR of 11.1 percent in urban Uttar Dinajpur.

**Table: Gender Participation in Main & Marginal Work in Uttar Dinajpur, 2001**

CD Block/Town	Total Workers	Male Main Workers	Male Marginal Workers	Female Main Workers	Female Marginal Workers	% Males in Main Workforce	% Males in Marginal Workforce	% Females in Main Workforce	% Females in Marginal Workforce
Chopra	70093	51191	4037	9071	5794	73.0	5.8	12.9	8.3
Islampur	79208	55316	5435	9890	8567	69.8	6.9	12.5	10.8
Goalpokhar-1	108170	59981	8642	17734	21813	55.5	8.0	16.4	20.2
Goalpokhar-2	75368	51193	6504	6836	10835	67.9	8.6	9.1	14.4
Karandighi	120332	67581	10002	19635	23114	56.2	8.3	16.3	19.2
Raiganj	139013	85367	9361	21427	22858	61.4	6.7	15.4	16.4
Hemtabad	48014	29082	4499	5975	8458	60.6	9.4	12.4	17.6
Kaliaganj	86162	50934	5434	13695	16099	59.1	6.3	15.9	18.7
Itahar	115623	61196	9814	14462	30151	52.9	8.5	12.5	26.1
<b>Uttar Dinajpur Rural</b>	<b>841983</b>	<b>511841</b>	<b>63728</b>	<b>118725</b>	<b>147689</b>	<b>60.8</b>	<b>7.6</b>	<b>14.1</b>	<b>17.5</b>
Islampur M	15858	12967	664	1723	504	81.8	4.2	10.9	3.2
Dalkhola M	3714	3213	222	212	67	86.5	6.0	5.7	1.8
Raiganj M	52508	41161	2134	7582	1631	78.4	4.1	14.4	3.1
Nachhratpur-Katabari CT	1889	1340	99	327	123	70.9	5.2	17.3	6.5
Kasba CT	3303	2682	170	292	159	81.2	5.1	8.8	4.8
Kaliaganj M	16269	12506	950	1912	901	76.9	5.8	11.8	5.5
<b>Uttar Dinajpur Urban</b>	<b>93541</b>	<b>73869</b>	<b>4239</b>	<b>12048</b>	<b>3385</b>	<b>79.0</b>	<b>4.5</b>	<b>12.9</b>	<b>3.6</b>
<b>Uttar Dinajpur DT</b>	<b>935524</b>	<b>585710</b>	<b>67967</b>	<b>130773</b>	<b>151074</b>	<b>62.6</b>	<b>7.3</b>	<b>14.0</b>	<b>16.1</b>

Source: Census, 2001





Clearly, while the urban areas of Uttar Dinajpur offer substantially wider employment opportunities under the category of non-seasonal main work unlike the rural areas where agro based employment has inbuilt seasonality, urban areas also have much less capacity to absorb additional marginal employment unlike rural areas. For urban women therefore, the prospect of finding employment in some form is considerably lower than in the rural areas of Uttar Dinajpur, despite their higher education and literacy attainments. As most qualified young women, who are currently raising families within the tight space of the urban nuclear household, have to stay among the non-working sections of the urban population, the empowering impact of education and literacy is considerably lessened by the lack of equivalent economic empowerment. This leaves most urban women entirely dependent on the principal earnings of household males.

Participation of rural women in main works is highest in Goalpokhar-1 and Karandighi blocks and lowest in Goalpokhar-2 block, all of which are located contiguously in a regional cluster within Islampur SD. Thus the Islampur region shows wider variability in female main work opportunities, compared to Raiganj SD where the opportunities for rural women to find main work are more equitably accessible. With the exception of Chopra, all Uttar Dinajpur blocks nevertheless show evidence of the mounting economic pressures which now force rural women to seek out some avenue for economic work, even if the work is in a marginal capacity. For rural women, such economic pressures reach their acutest levels in Goalpokhar-1 which has a high marginal WPR of 20.2 percent in addition to main WPR of 16.4 percent, in Karandighi with a marginal WPR of 19.2 percent in addition to main WPR of 16.3 percent, and in Itahar with a marginal WPR of 26.1 percent in addition to main WPR of 12.5 percent. All of these are also blocks where the incidence of rural poverty is also known to be high.

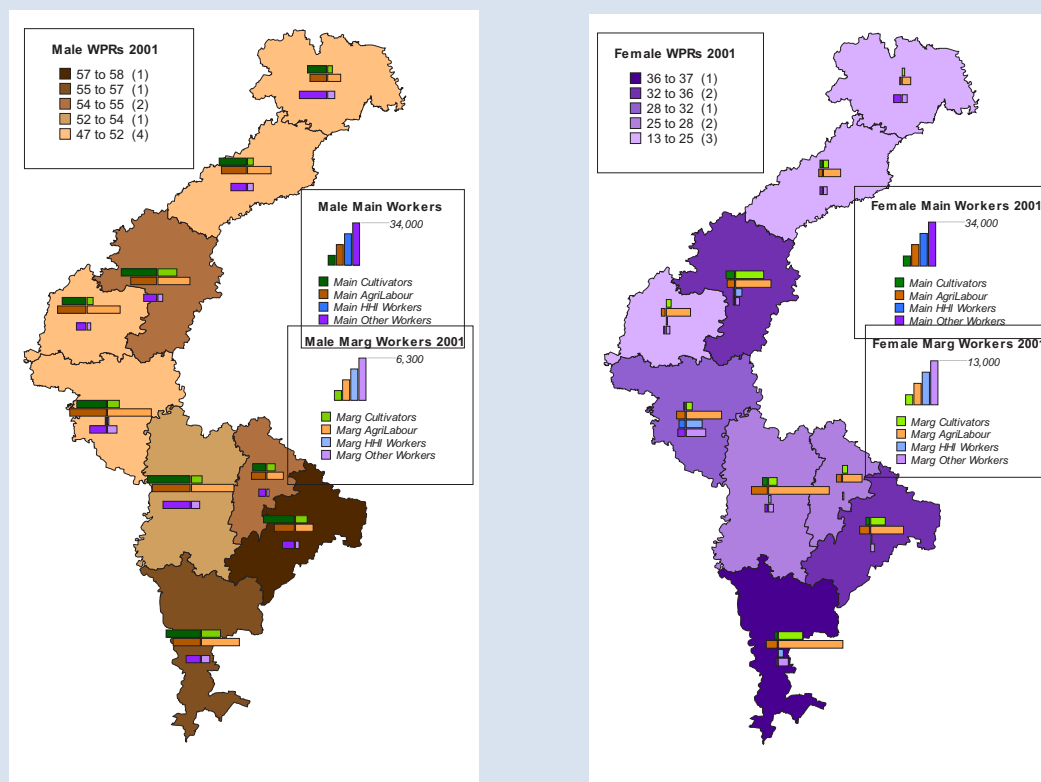
With 66 percent of the main workforce of 7.15 lakh main workers, and another 79 percent of the marginal workforce of 2.19 lakh marginal workers drawing direct livelihoods from cultivation and agricultural labour in 2001, Uttar Dinajpur is still a predominantly agricultural district. Except in Chopra where there has been significant proliferation of small tea gardens in recent times, and in Karandighi where the proliferation of beedi manufacturing has created new work opportunities outside the farm sector, agricultural workers comprise 75 percent or more of the total workforce in most Uttar Dinajpur blocks. Agricultural activities also create employment for between 62 to 67 percent of the marginal workforce in Chopra and Karandighi, and between 82 to 88 percent of the total marginal workers in the other Uttar Dinajpur blocks. Since women comprise 69 percent of the marginal workforce in the district, the strong dependence of women workers on the agricultural sector for securing economic livelihoods becomes abundantly clear. Nevertheless, the work opportunities for women in the agricultural sector are largely of a marginal nature in Uttar Dinajpur, thereby limiting the empowering impact of their participation in economic activities.

Even though agricultural activities contribute significantly to the employment of both men and women workers in Uttar Dinajpur, as indicated in the associated barcharts, the employment profile of women workers in the district is less diversified compared to male workers, both in case of main as well as marginal work participation. The aggregate number of main & marginal cultivators in Uttar Dinajpur touches 2.77 lakh. Against 2.04 lakh males who are self-employed as main cultivators, the number of women holding the status of main cultivators shrinks by roughly a tenth to less than 0.27 lakh, with women main cultivators being significantly present only in Goalpokhar-1, Raiganj, Kaliaganj and Islampur blocks, which account collectively for 70 percent of their number. The number of women marginal cultivators in Uttar Dinajpur is higher at 0.31 lakh, in comparison to which the number of male marginal cultivators is almost negligible at 0.15 lakh. Although till 2004, around 1.47 lakh rural households in Uttar Dinajpur had acquired the legal status of pattadars as a result of the implementation of redistributive land reforms, the average size of each reassigned land holding, at around 0.2ha per patta, was too small for viable farming operations. Since 1992, provision has been made in West Bengal for recording joint titles to vested lands reassigned under redistributive land reforms in the names of both spouses with retrospective effect. However, the implementation of this order is still incomplete. Despite the fact that they constitute nearly a third of the agricultural workforce in Uttar Dinajpur, the presence of women as cultivators still remains relatively insignificant, while rural men continue to exercise gender dominance over women in the rural areas of the district because of their pre-eminent positions as landowners and cultivators. Thus the primary work-roles of rural women are confined largely to wage-work activities, as a consequence of which they constitute around 40 percent of the 3.71 lakh agricultural labourers in Uttar Dinajpur. Even in this work-role, 0.87 lakh women participate as marginal workers, against 0.58 lakh women engaged in agricultural wage-work in a main worker capacity.

The involvement of rural women in tertiary non-farm activities falling within the census category of 'other workers' only reaches appreciable proportions in Chopra and Karandighi, where there has been considerable livelihood diversification through women-centred labour activities associated with small tea plantations and beedi making. The involvement of rural men in non-agricultural activities has a wider spread across Uttar Dinajpur and is significantly high in nearly all blocks with the exception of Hemtabad. The total strength of the male workforce engaged in other non-farm work thus amounts to 1.98 lakh, with 94 percent of the males being so engaged in a main worker capacity. In contrast, the total number of female other workers amounts to 0.55 lakh, among whom over 63 percent are engaged in a marginal worker capacity.

The contrasts in gender work-roles in Uttar Dinajpur are brought out strongly by the accompanying regional maps, which also show that the lower WPRs of women in most Islampur SD blocks as well as their relatively low participation in the main worker category add an economic dimension to the regional disparities already faced by rural women in literacy, education and health status. In Goalpokhar-1, Itahar and Kaliaganj where female WPRs are relatively high, many more women function as marginal cultivators, which obviously adds considerable strength to their relative gender status.

## MAP: Gender &amp; Work Participation in Uttar Dinajpur



Although rural women in India also play a dominant role in home-based labour activities undertaken within rural households, this aspect is not captured adequately by census data, because of the unpaid nature of their work. Nevertheless, the mounting economic pressures with which rural households have to cope have now forced more rural women to seek out opportunities for paid work. The rural work opportunities that exist generally do not allow their engagement as main workers, because of open competition from males within the rural labour force. The dominance of marginal work in women's work participation reduces the empowering impact of their increasing engagement in economic work.

Ample evidence of the increasing economic pressure on rural women in Uttar Dinajpur to seek out paid work is found in the growth of rural WPRs among women in the district from 13.5 percent in 1991 to 25.5 percent in 2001. The huge rise in marginal WPRs of rural women from just 4 percent to 14.2 percent over the same period clearly indicates however that the growth of rural employment opportunities for women has not been able to keep pace with the growing work needs of women. Main WPRs among rural women in the district have therefore risen by a much smaller proportion from 9.5 percent to 11.4 percent between 1991-2001, forcing more and more women workers to accept the insecurities of marginal work out of sheer economic necessity.

A peculiar feature of the changing gender patterns of work in Uttar Dinajpur has been the sharp decline in main work participation rates among rural males from 55.8 percent in 1991 to 46.4 percent in 2001, although over the same period, the number of rural males in main work has risen in absolute terms from 4.76 lakh to 5.12 lakh. The proportionate decline in male main WPRs has been present in all Uttar Dinajpur blocks, and has been particularly strong in Karandighi, Goalpokhar-2, Itahar and Chopra. This has been

compensated by strong absolute increase in the participation of rural women in main work from 0.75 lakh to 1.19 lakh between 1991-2001. In proportionate terms however, main WPRs for rural women have risen substantially in Goalpokhar-1 and Islampur, and more moderately in Chopra, Kaliaganj and Karandighi, but have declined in Raiganj, Goalpokhar-2, Hemtabad and Itahar.

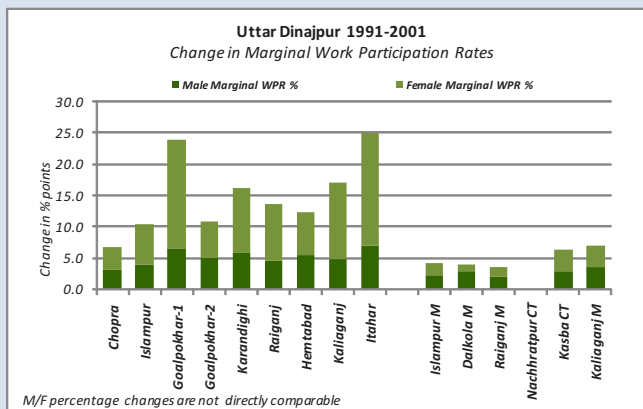
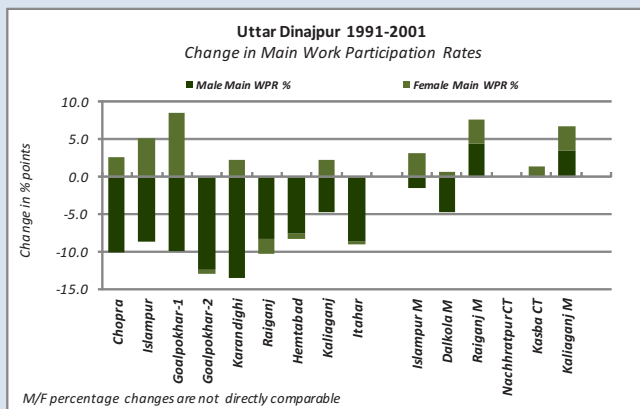
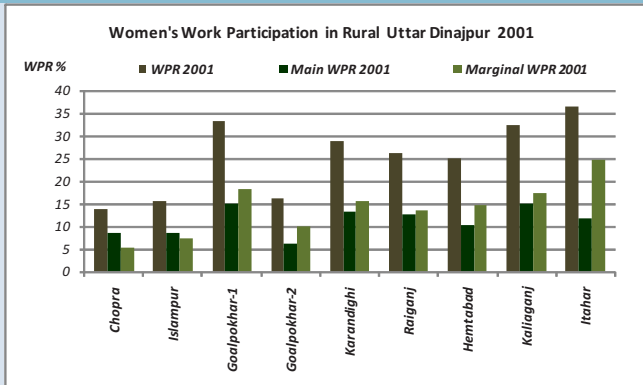
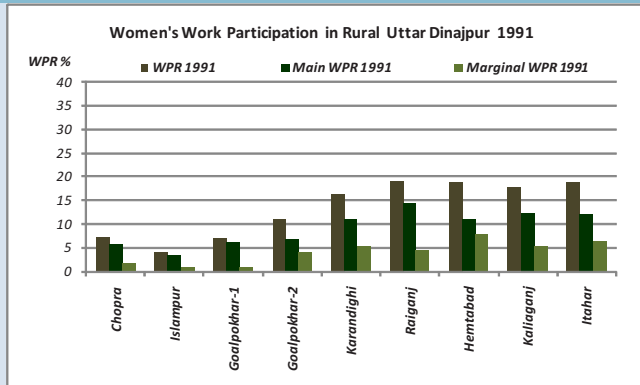
Thus, current gender work situations in the district throw up several confusing indicators for women's work participation. Women's WPRs have increased in proportionate terms in all Uttar Dinajpur blocks. The increase has been strong in Goalpokhar-1, Itahar, Kaliaganj, Karandighi and Islampur, and more moderate in the other blocks. Increases in main work participation among rural women in these blocks have been partially offset by proportionate declines in the other blocks, while marginal WPRs for both rural men and rural women have risen quite substantially in all Uttar Dinajpur blocks. Clearly, the strongest increases in WPRs for rural women have occurred in blocks like Goalpokhar-1 where both main and marginal WPRs for women have grown substantially. These are also blocks where male main WPRs have declined because of the growing outmigration of male main workers, so that the women workers have substituted for the work previously performed by these outmigrating workers. Elsewhere in the district, in blocks like Kaliaganj where rural outmigration pressures have not reached such a height, the decline in male main WPRs have been more moderate, and have been accompanied by fairly strong increases in the participation of men and women in marginal work.

**Table: Growth of Work Participation among Rural Women in Uttar Dinajpur, 1991-2001**

CD Block	1991 WPR % Total Women Workers	2001 WPR % Total Women Workers	1991 WPR % Women Main Workers	2001 WPR % Women Main Workers	1991 WPR % Women Marginal Workers	2001 WPR % Women Marginal Workers
Chopra	7.4	13.8	5.8	8.4	1.7	5.4
Islampur	4.1	15.7	3.3	8.4	0.8	7.3
Goalpokhar-1	7.2	33.2	6.3	14.9	0.9	18.3
Goalpokhar-2	10.9	16.1	6.9	6.2	4.0	9.9
Karandighi	16.2	28.8	10.9	13.2	5.3	15.6
Raiganj	19.0	26.3	14.5	12.7	4.5	13.6
Hemtabad	18.9	25.0	11.1	10.4	7.8	14.7
Kaliaganj	17.7	32.3	12.5	14.9	5.3	17.5
Itahar	18.8	36.5	12.2	11.8	6.6	24.7
<b>Uttar Dinajpur Rural</b>	<b>13.4</b>	<b>25.5</b>	<b>9.5</b>	<b>11.4</b>	<b>3.9</b>	<b>14.2</b>

Source: Census, 1991 & 2001





Despite the fact that the district stretches along an extended geographical space, the elongated and narrow spatial structure of Uttar Dinajpur and its placement between inter-state and international borders places considerable impediments in the way of urban development in the district, except in the immediate vicinity of Raiganj. While the proportionate decline in main work participation by rural males and their substitution by women agricultural workers is obviously related to low rural wage-levels and poverty, forcing rural men to migrate either seasonally or for extended durations of time, the lack of equivalent urbanisation forces most rural migrants to seek work outside the district. While the strong decline in male main WPR across all Uttar Dinajpur blocks between 1991 and 2001 is indicative of the migration pressure, the growth of urban main WPRs in the municipalities of Raiganj and Kaliaganj is insufficient to absorb the resulting migration stream. Moreover, since the skill-levels of rural migrants do not generally match the specifications of urban jobs, a large proportion of the new work opportunities created within the urban sector are filled by urban-to-urban migrants moving in from other districts and regions. Since the extremely limited nature of new employment opportunities in Uttar Dinajpur is patently obvious from this analysis, the changing work roles of women in the district represent a response to persisting rural poverty and backwardness.

Interestingly, till 1991, the gender work patterns in Uttar Dinajpur were strikingly different. Male marginal WPRs were then in the very low range stretching from 0.13 percent (Goalpokhar-1) to 1.77 percent (Raiganj rural) and were well below 0.7 percent in all other Uttar Dinajpur blocks. Male WPRs were considerably higher, and most male workers were able to find adequate opportunities for main work. Obviously, this encouraged substantial rural-to-rural immigration into Uttar Dinajpur from surrounding regions, boosting population growth. Because most rural men were able to find main work, the economic pressure on rural women to seek out economic work was relatively mild. Within the short space of ten years between 1991-2001, the pendulum had swung to the other extreme. With the large intercensal growth of the rural population, both from natural causes and immigration, most new entrants into the male labour force in the

district today are only able to find marginal work during a certain part of the year and have to migrate away from the district at other times in order to sustain their earnings. While the resulting labour gap has been filled by women workers, this occurs in response to the increasing economic insecurity of rural families where the earnings of household males have become increasingly uncertain. Meanwhile, wage competition among the large contingent of males who make up the bulk of the rural labour force has depressed rural wage-levels in the district to the point where the incentive to migrate to other regions and districts has increased commensurately. Thus the current gender work patterns in Uttar Dinajpur are also indicative of the growing economic stress that confronts rural households. While rising work participation by women in the district has placed them in an important economic role, the empowering impact of their economic participation is largely negated by the disempowering impact of low human development and pervasive poverty that makes Uttar Dinajpur one of the most backward districts in West Bengal.

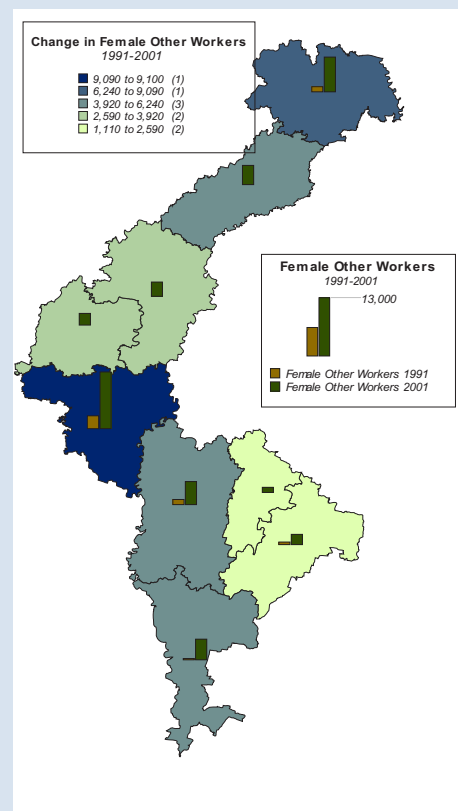
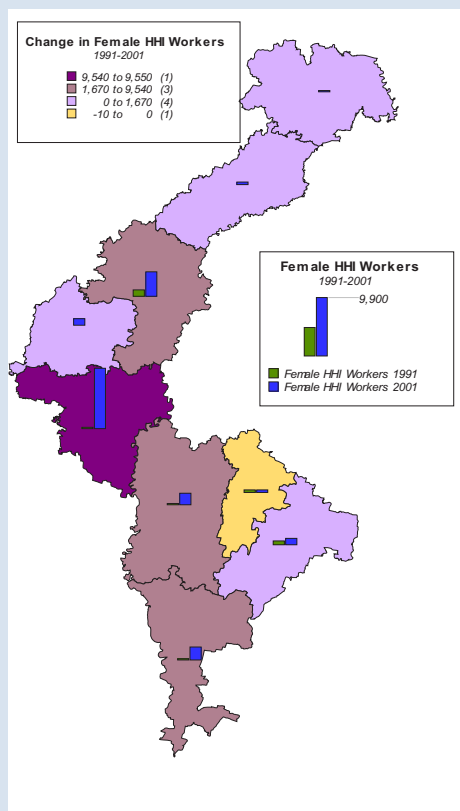
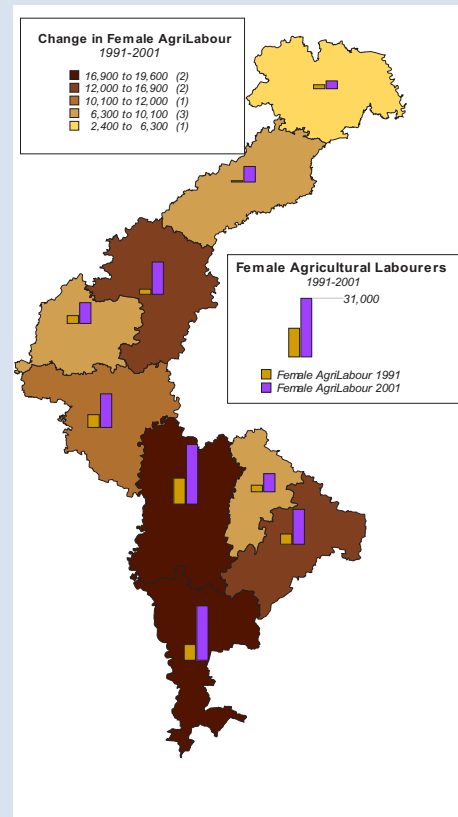
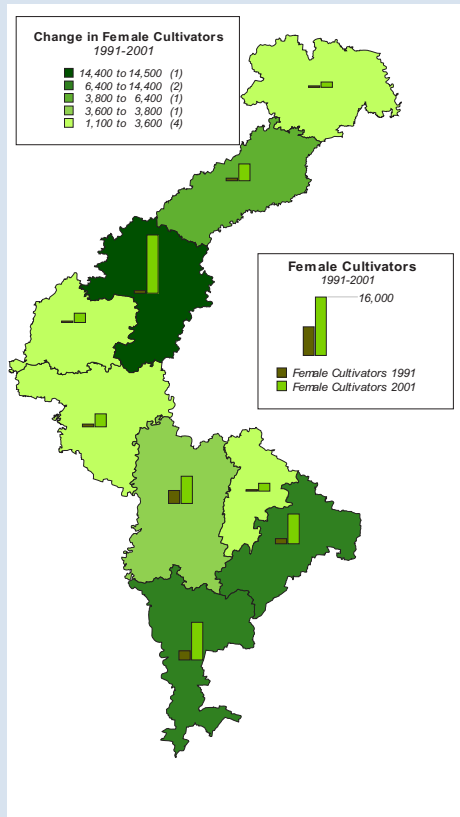
### Sectoral Change in Women's Employment

Women's economic roles in Uttar Dinajpur are considerably larger today than they were in the past. A growing number of rural women are now entering the workforce either in the role of main earners or marginal earners, creating basic conditions for future economic empowerment of women in the district, if these gains in employment are accompanied by advances in women's education, health and social security. However, the impact of increasing work participation by women has so far been uneven across the district, because of local socioeconomic and cultural situations that differ considerably between its subregions. It therefore become important to identify characteristic regional and sectoral patterns of change in women's work participation between 1991-2001, in order to assess whether current trends towards greater economic participation by women in Uttar Dinajpur are sustainable in the long run, or whether the saturation of current rural employment opportunities will halt the economic progress of women.

Throughout most parts of rural West Bengal, there has been a considerable decline in both the absolute and relative number of males engaged in cultivation between 1991-2001. This has accompanied sharp growth in the number of rural males engaged in main & marginal worker roles as agricultural labourers. However, in Uttar Dinajpur, the decline in male cultivators by 0.35 lakh between 1991-2001 has been accompanied by substantial growth in the number of women cultivators from 0.12 lakh in 1991 to 0.26 lakh in 2001, with particularly sharp increases taking place in Goalpokhar-1, Itahar and Kaliaganj, followed by Raiganj and Islampur blocks. Nevertheless, the increase in women cultivators has only been strong enough to offset the absolute decline in male cultivators in Goalpokhar-1 and Kaliaganj blocks, where the new women cultivators have virtually stepped into the men's shoes. In these two blocks, there has also been an increase in the absolute number of cultivators, against the trend in the other Uttar Dinajpur blocks. Although the increase in women cultivators is of a milder order in the rest of the Uttar Dinajpur blocks, the trend towards increasing participation of women as main cultivators is maintained by all blocks across both sub-divisions of the district.

Between 1991-2001, the number of women engaged in main work as agricultural labourers in Uttar Dinajpur has also risen from 0.50 lakh to 0.57 lakh. Women workers accounted for around 39 percent of the total increase in main agricultural labourers by nearly 0.19 lakh. The importance of women's work in the subsistence economy of the district has grown progressively as the role of male workers has declined. Thus in aggregate terms, the number of women main cultivators and agricultural labourers participating in farm-based work in Uttar Dinajpur increased substantially by 0.21 lakh, against an overall decline in male farm workers by 0.23 lakh over the same period. Besides augmenting the agricultural labour force, women also took on the work-roles of men who had given up cultivation and had migrated to other occupations or other places for alternative employment. However, this failed to offset the overall decline in main cultivators in the district by 0.21 lakh over the same period.

MAP: Regional Change in Women's Main Work Profiles in Uttar Dinajpur, 1991-2001



In regional terms, the strongest increases in the number of female cultivators took place in Goalpokhar-1, followed by Islampur, Kaliaganj, Raiganj and Itahar, while in the other Uttar Dinajpur blocks, the presence of women cultivators was weak and the increase in their number was modest. The sharpest increases in the number of women main agricultural labourers also occurred in the intensely cultivated Raiganj-Itahar belt. In the contiguous blocks of Kaliaganj, Goalpokhar-1 and Karandighi, the increase in women main agricultural labourers was less intense and was relatively moderate in the other Uttar Dinajpur blocks. Given both regional tendencies, the role of rural women workers in the subsistence economy of the district has expanded considerably in all blocks except Chopra, Goalpokhar-2 and Hemtabad. While women workers in Chopra were also able to find absorption in non-traditional activities such as small tea gardens, the slow growth of women's work involvement in the subsistence sector in Goalpokhar-2 and Hemtabad was mainly because of the saturation of work opportunities in the agricultural sector, and the limited scope for finding economic work outside this sector.

In the non-farm sector, women's work participation has increased most strongly in Karandighi block, where 0.22 lakh women workers (10,851 main workers and another 10,653 marginal workers) were engaged in this category of work in 2001. The increase in women's work participation in Karandighi was significantly high both in the home-based production sector as well as in other non-farm occupations. Chopra accounted for the largest contingent of women main workers engaged under the 'other work' category, primarily because of proliferation of small tea gardens. Islampur, Goalpokhar-1 and Raiganj were the other Uttar Dinajpur blocks where women's main work participation in non-farm activities increased substantially. In Itahar however, because of the saturation of work opportunities in the agricultural sector, the participation of women marginal workers in non-farm activities increased steeply.

Summing up these cumulative sectoral trends in women's work participation in Uttar Dinajpur, it is evident that the huge rise in women's economic participation between 1991-2001 is in direct response to the mounting economic pressures which now force rural women to seek out paid work opportunities to supplement family incomes, in addition to their unpaid work in the household and on family farms. In regions like Goalpokhar-1 where the agricultural potential had been inadequately developed in the past, it has been relatively easy work women to find main and marginal work within the farm sector. Elsewhere, particularly in the Islampur SD blocks, increasing migration of rural male workers to other places and other sectors of work have also impelled the substitution of male farm workers by women workers, expanding the work-role of women within the subsistence economy of Uttar Dinajpur. Increased women's participation in non-farm work has occurred in certain regions where the saturation of agricultural work opportunities has been accompanied by the proliferation of newer forms of non-farm activity. However, in core agricultural areas throughout the district, where the intensity of cultivation and work participation is already very high, women workers only find engagement in various forms of marginal work, where work-related insecurities are considerably larger.

The prevalence of low rural wage levels throughout Uttar Dinajpur has limited the extent of economic empowerment resulting from increased work participation by rural women in the district. The earnings of women marginal workers are uncertain, and are low where they come into direct competition with male wage-workers. Slow rates of urbanisation in Uttar Dinajpur do not offer enough scope for work related rural-urban migration. The natural consequence is for male workers to seek work at great distances, leaving the womenfolk behind to take charge of households and families. Thus in many parts of rural Uttar Dinajpur, the acquisition of greater economic responsibilities by rural women reflects a response to rural poverty rather than a path to rural prosperity.

### Political Empowerment of Women in Uttar Dinajpur

The passing of the 73rd Constitutional Amendment Act in 1992 by Parliament ensured political representation for the women of India in all elected local governance bodies in rural as well as in urban areas. Article 243 D(3) of the Constitution thus proposed the statutory reservation for women of not less than a third of the total number of seats that are filled by direct election at each level of the three-tier Panchayat system, including seats already set aside exclusively for the SCs and STs. The seats to be reserved for women were to be allotted by rotation among the different constituencies attached to each Panchayat tier. Article 243 D(4) further proposed that no less than a third of the total leadership positions of Chairpersons for each Panchayat tier were to be set aside for women, again through a similar process of rotation. Under Article 243 T (3&4), similar reservations were to be made for the municipal bodies in the manner prescribed by the State legislatures.

In West Bengal, the experience of participatory governance since 1977 had already established that the traditional domination of local governance institutions by the rural elite can be overcome through proper local mobilisation of the people under the impetus of policies for land redistribution and institutional change. Achievement of direct political power by women in the institutions of local governance thus became a major step towards women's empowerment, since apart from bringing individual women into leadership roles, it has also increased the involvement of women as a group in governance processes, allowing them room to give practical shape to their own development choices. This model of participatory development was considerably reinforced by the parallel process of administrative decentralisation. At the first-tier Gram Panchayats [GPs] in West Bengal, political representation of the poor, the socially marginalised communities and women has expanded significantly, although their representation is not yet as strong in the third-tier Zilla Parishads [ZPs]. Greater participation of women in local governance in West Bengal has also noticeably improved the delivery of special development schemes that target rural women and children in the state, including ANC, RCH and nutritional programmes.

**Table: Patterns of PRI Representation in Uttar Dinajpur & West Bengal, 1993 & 2003**

<i>Classified PRI Members</i>	Uttar Dinajpur Zilla Parishad	Uttar Dinajpur Panchayat Samitis	Uttar Dinajpur Gram Panchayats	Uttar Dinajpur Gram Sansads	Total Uttar Dinajpur PRIs	West Bengal Zilla Parishads	West Bengal Panchayat Samitis	West Bengal Gram Panchayats	West Bengal Gram Sansads	Total West Bengal PRIs
PRI Institutions, 2003	1	9	98	1422	1530	18	333	3354	45245	48950
<i>4th PANCHAYAT ELECTIONS, 1993</i>										
Women Members	6	99	718	-	823	224	3182	21489	-	24895
General	3	62	441	-	506	142	1996	13553	-	15691
SC	2	29	212	-	243	64	921	6256	-	7241
ST	1	8	65	-	74	18	265	1680	-	1963
Male Members	12	195	1310	-	1517	432	6271	39521	-	46224
General	13	165	1123	-	1301	369	5257	32347	-	37973
SC		29	188	-	217	53	873	6178	-	7104
ST		1		-	1	10	141	996	-	1147

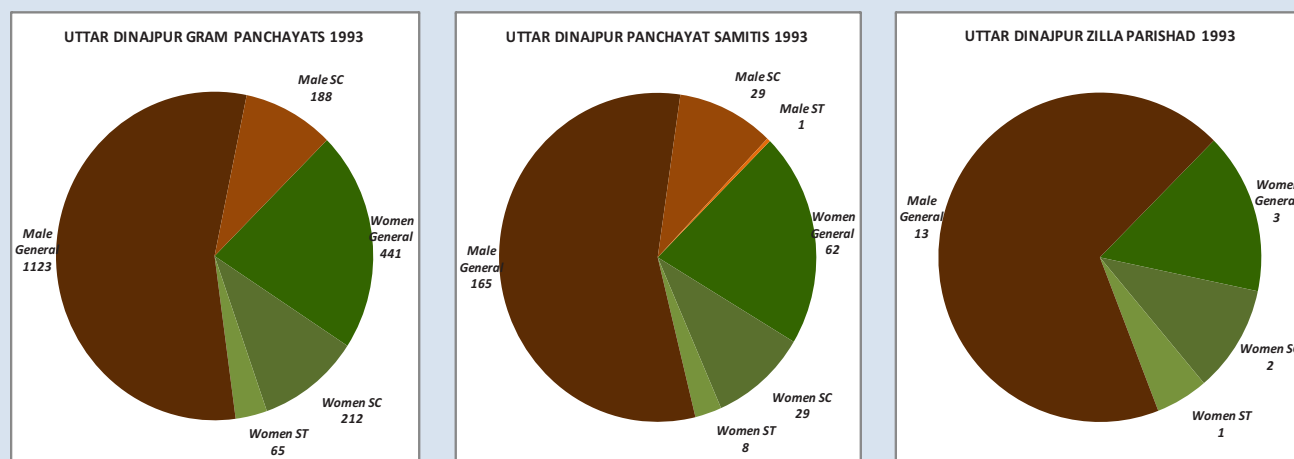
**Table: Patterns of PRI Representation in Uttar Dinajpur & West Bengal, 1993 & 2003**

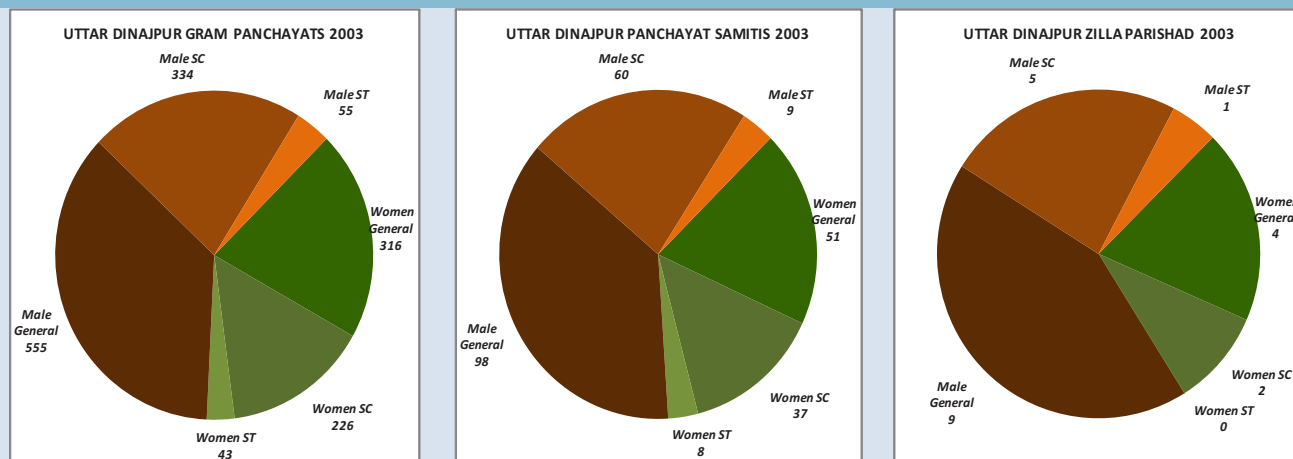
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Classified PRI Members	Uttar Dinajpur Zilla Parishad	Uttar Dinajpur Panchayat Samitis	Uttar Dinajpur Gram Panchayats	Uttar Dinajpur Gram Sansads	Total Uttar Dinajpur PRIs	West Bengal Zilla Parishads	West Bengal Panchayat Samitis	West Bengal Gram Panchayats	West Bengal Gram Sansads	Total West Bengal PRIs
Total Members	18	294	2028	-	2340	656	9453	61010	-	71119
General	16	227	1564	-	1807	511	7253	45900	-	53664
SC	2	58	400	-	460	117	1794	12434	-	14345
ST		9	64	-	73	28	406	2676	-	3110
<i>6th PANCHAYAT ELECTIONS, 2003</i>										
Women Members	6	96	585	-	687	246	3032	18,721	-	21999
General	4	51	316	-	371	159	1881	11,568	-	13608
SC	2	37	226	-	265	66	923	5657	-	6646
ST	-	8	43	-	51	21	228	1496	-	1745
Male Members	15	167	944	-	1126	474	5532	32,421	-	38427
General	9	98	555	-	662	316	3578	21,152	-	25046
SC	5	60	334	-	399	127	1545	8951	-	10623
ST	1	9	55	-	65	31	409	2318	-	2758
Total Members	21	263	1529	-	1813	720	8564	51142	-	60426
General	13	149	871	-	1033	475	5459	32720	-	38654
SC	7	97	560	-	664	193	2468	14608	-	17269
ST	1	17	98	-	116	52	637	3814	-	4503

Source: Panchayat & Rural Development Department, GoWB

## Gender Representation in Gram Panchayats, Panchayat Samities and Zilla Parishads, 1993-2003





The impact of participatory governance and seat reservation for women in the PRI bodies on the political representation of women in Uttar Dinajpur may be gauged from comparison of the electoral results for the fourth general Panchayat elections of 1993 and the sixth general Panchayat elections of 2003. The 1993 elections were held before women's reservation had come into effect. Even without the direct benefit of the statutory seat reservation, women elected members secured just over 35 percent of the 2340 PRI seats for which elections were held in the district under the three-tier system, of which 10.4 percent were secured by SC women, 3.2 percent by ST women and 21.6 percent by women belonging to other general communities. The proportions were broadly similar for the PRI seats secured by women from these three community groups in West Bengal as a whole in the 1993 Panchayat elections. This showed quite effectively that the political empowerment of women in the state and the district was a grassroots process arising from the model of participatory development and governance, rather than from seat reservation per se, unlike many other Indian states.

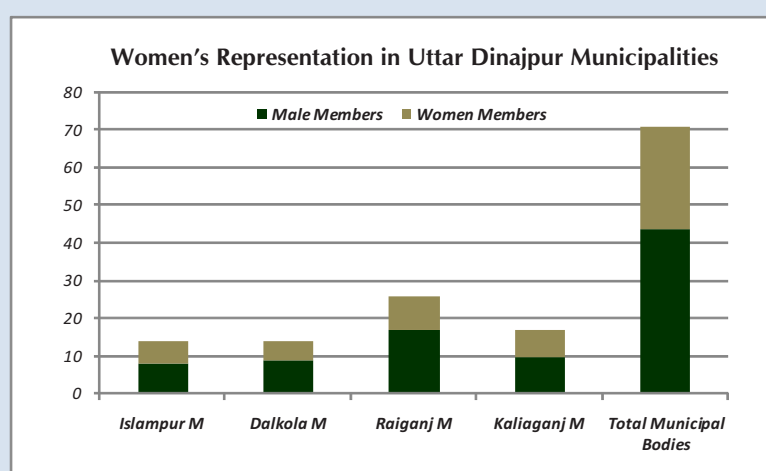
The fifth general Panchayat elections conducted in 1998 were the first to be held after the statutory women's reservation came into effect in West Bengal. Five years later, in the sixth Panchayat elections in 2003, women elected members secured close to 38 percent of the 1813 elected PRI seats in Uttar Dinajpur, with the representation of SC women rising to 14.6 percent, the representation of ST and general community women falling marginally to 2.2 percent and 20.5 percent respectively. For West Bengal as a whole, women elected members secured just under 37 percent of the 60426 elected PRI seats, with 11 percent going to SC women, 2.9 percent to ST women and 22.5 percent to women from other general communities.

The fall in aggregate PRI seats in Uttar Dinajpur subsequent to the 1993 election was occasioned by the bifurcation of Itahar Panchayat Samiti and transfer of the GPs under the jurisdiction of Harirampur thana to Dakshin Dinajpur district. However, as seen from the associated piecharts, the absolute decline in the number of women PRI members from 823 in 1993 to 687 in 2003 was accompanied by the greatly increased representation of both women and men from SC and ST communities at the GP level, resulting in a sharp cutback in the proportional representation of men and women from other general communities in the GP level panchayats. Thus the overall representation of members from the poorer and marginalised sections in the Uttar Dinajpur GPs increased in absolute terms, despite the reduction in the total number of GP seats. This was in keeping with the composition of the rural population in the district, which is dominated weaker social sections including the Muslim community.

**Table: Women's Representation in Municipal Bodies in Uttar Dinajpur**

Municipal Body	Year of Election	Total Elected Members	Elected Male Members	Elected Women Members	% Women's Representation
Islampur M	2004	14	8	6	42.9
Dalkhola M	2006	14	9	5	35.7
Raiganj M	2003	26	17	9	34.6
Kaliaganj M	2004	17	10	7	41.2
<b>Total Municipal Bodies</b>		71	44	27	38.0

Source: Office of the District Magistrate, Uttar Dinajpur



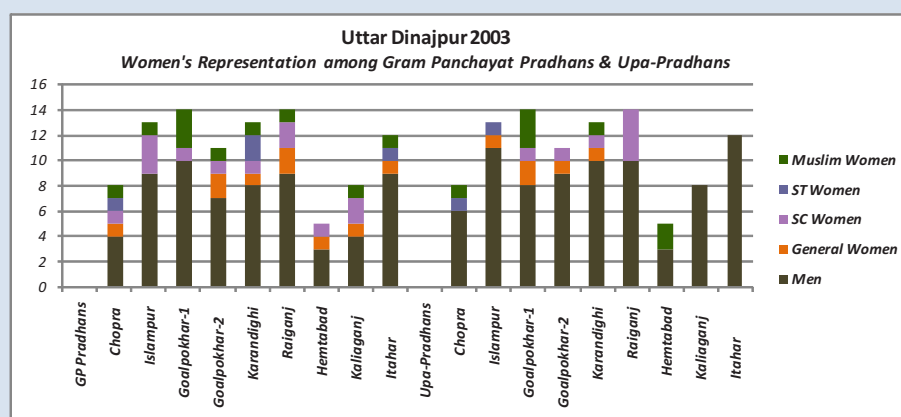
At the block-level Panchayat Samitis too, the representation of men and women from the SC and ST communities increased in absolute terms, in addition to which 37 of the 51 general category women members were from the Muslim community, at the cost of reduced representation of men and women from the forward general communities. The most striking change in the pattern of representation occurred in the Uttar Dinajpur Zilla Parishad which had formerly been dominated by male ZP members from the general community. After 2003, women held on to their numeric representation in the Uttar Dinajpur, gaining an SC and a Muslim general seat despite the loss of one ST woman member from an unreserved ZP seat, while the representation of men from the SC and ST communities also expanded considerably. At all three Panchayat tiers therefore, significant representational gains were recorded by women as well as the SC and ST communities in Uttar Dinajpur. Such changes in the electoral composition of PRIs in Uttar Dinajpur clearly indicate that the statutory seat reservation for women has strongly reinforced the political gains already achieved by women under decentralised and participatory governance, promoting the political empowerment of rural women from the poor and marginalised communities. Women's representation on urban local bodies [ULBs] in Uttar Dinajpur district accounted for 27 out of 71 elective seats, surpassing the minimum statutory reservation norm under all four municipalities, and their representation in the Islampur and Kaliaganj municipal bodies was well over 40 percent. It is therefore evident that urban women as an educated and articulate class have also been able to establish their presence within local governance institutions in their own right, without depending solely on the statutory reservation of seats.



Table: Women in Leadership Roles in the Uttar Dinajpur Gram Panchayats, 2003

Panchayat Samiti	Total Gram Panchayats	Total Male Panchayat Pradhans	Total Women Panchayat Pradhans	General Women Panchayat Pradhans	SC Women Panchayat Pradhans	ST Women Panchayat Pradhans	Muslim Women Panchayat Pradhans
Chopra	8	4	4	1	1	1	1
Islampur	13	9	4	-	3	-	1
Goalpokhar-1	14	10	4	-	1	-	3
Goalpokhar-2	11	7	4	2	1	-	1
Karandighi	13	8	5	1	1	2	1
Raiganj	14	9	5	2	2	-	1
Hemtabad	5	3	2	1	1	-	-
Kaliaganj	8	4	4	1	2	-	1
Itahar	12	9	3	1	-	1	1
<b>Uttar Dinajpur DT</b>	<b>98</b>	<b>63</b>	<b>35</b>	<b>9</b>	<b>12</b>	<b>4</b>	<b>10</b>
Panchayat Samiti	Total Gram Panchayats	Total Male Upa-Pradhans	Total Women Upa-Pradhans	General Women Upa-Pradhans	SC Women Upa-Pradhans	ST Women Upa-Pradhans	Muslim Women Upa-Pradhans
Chopra	8	6	2	-	-	1	1
Islampur	13	11	2	1	-	1	-
Goalpokhar-1	14	8	6	2	1	-	3
Goalpokhar-2	11	9	2	1	1	-	-
Karandighi	13	10	3	1	1	-	1
Raiganj	14	10	4	-	4	-	-
Hemtabad	5	3	2	-	-	-	2
Kaliaganj	8	8	-	-	-	-	-
Itahar	12	12	-	-	-	-	-
<b>Uttar Dinajpur DT</b>	<b>98</b>	<b>77</b>	<b>21</b>	<b>5</b>	<b>7</b>	<b>2</b>	<b>7</b>

Source: Office of the District Magistrate, Uttar Dinajpur



Another important aspect of the statutory process for politically empowering women has been the cyclic reservation of a third of the leadership positions within the PRI bodies for women, which allows women ZP Sabhadhipatis, Panchayat Samiti Sabhapatis and GP Pradhans and Upa-Pradhans to leave their own unique stamp on the policies, programmes and functioning of the three-tier Panchayat system. The Uttar Dinajpur Zilla Parishad formed after the sixth Panchayat elections in 2003 thus had a women Sabhadhipati for five years under the cyclic reservation system, and will be due again for another such tenure after the ninth Panchayat elections are held in the district in 2018. It has generally been noticed that having a woman at the head of the Zilla Parishads in West Bengal brings special focus to bear on women's development schemes implemented through the Panchayat system, besides encouraging the response and participation of rural women in Panchayat activities. The present ratio between ZP and Panchayat Samiti chairpersons and GP Pradhans in Uttar Dinajpur is 1:9:98. Thus at any given time, between 30-36 women occupy leadership roles within the Panchayat system in the district, which is a commendable advance over the prior leadership composition where most lead functionaries of Panchayat system were overwhelmingly male.

Data for the gender and community composition of lead functionaries of the Uttar Dinajpur GPs show that nearly 36 percent of the positions of GP Pradhans and 21 percent of the positions of GP Upa-Pradhans were held by women after the Panchayat elections of 2003. However, the regional complexion of these leadership positions varied widely between the different Panchayat Samitis or blocks. Chopra and Kaliaganj with 8 GPs each had women Pradhans in position in half of them, while Itahar with 12 GPs and Goalpokhar-1 with 14 GPs still had male Pradhans in place in well over 70 percent of their GPs. Since Islampur with another 13 GPs also had male Pradhans in nearly 70 percent of them, the proportion of women in leadership positions in these three Muslim-dominated blocks was distinctly low compared to the other blocks in Uttar Dinajpur. Goalpokhar-1 however compensated for this to some extent by having women Upa-Pradhans in 43 percent of its GPs, closely followed by Hemtabad with 40 percent, while the proportion of women Upa-Pradhans was distinctly low in Islampur and Goalpokhar-2 at around 15 percent and 18 percent respectively. All 20 GPs across the Kaliaganj and Itahar region invariably had male Upa-Pradhans, with no women being elected to these positions. Chopra and Goalpokhar-1 were thus best placed in terms of the overall proportion of women in leadership positions in the GPs, while Islampur lagged behind all other Uttar Dinajpur blocks in this respect.

Of the 35 positions of GP Pradhans held by women in Uttar Dinajpur, 12 were held by SC women while Muslim women occupied another 10. SC and Muslim women each accounted for 7 leadership positions among the 21 women Upa-Pradhans, while among ST sections and other general communities, the proportion of women placed in such leadership positions was relatively low. Clearly, the SC and Muslim women of the district had benefited most from the new statutory provisions for cyclically rotating the leadership positions at GP level, rising to the position of community leaders in nearly all blocks. The placement of ST women vis-à-vis GP leadership positions was relatively poorer, particularly in blocks like Islampur, Goalpokhar-1 and Hemtabad where the ST presence is also significant. Besides having presence in all blocks except Itahar, SC women leaders were particularly powerful in the Raiganj region where they occupied 4 leadership positions as GP Pradhans and another 2 as Upa-Pradhans. On the other hand, the political placement of women GP leaders of all communities was distinctly poorer in the three other Raiganj SD blocks of Hemtabad, Kaliaganj and Itahar, where women occupied only 22 percent of the 50 leadership positions that were at stake.

In spite of such evidence of political progress, the process of political empowerment of women in Uttar Dinajpur still has much uncovered ground. Political presence of women - especially in leadership positions - thins out in the upper tiers of the Panchayat system, especially at ZP level where decision-making powers

are greatest. Pockets such as the Itahar-Kaliaganj region in Raiganj SD and Islampur block under Islampur SD still exist where women's political leadership is still weak. Grassroot political empowerment at the level of the Gram-Sabhas and Gram-Sansads has still to take off in the district, with official data showing that average attendance at the meetings of these two bodies has declined from approximately 16 percent of the membership to 12 percent in the four years between 1997 to 2001. In 2003, the levels of absenteeism at these meetings touched 90 percent. The mere fact of election and participation of women at the Panchayat bodies does not in itself guarantee that the women of the district will benefit from closer attention to gender-related issues, unless the women members and leaders can influence decisions in favour of women. The preceding examination of women's education, health and livelihood situations in Uttar Dinajpur has already shown that the ground-level changes in gender situations expected from increasing women's participation in the political process in the district have been slow in coming so far.

### Women's Self-Help Group [SHG] Movement in Uttar Dinajpur

A new dimension has been added to the ongoing struggle for women's empowerment in West Bengal by the women's Swanirbhar Dals or Self-Help Groups, as the SHG movement has swept across the state in the last ten years. Under the SHG concept, where women are encouraged to stand up united by their own strengths, the rural women of the state have literally become agents for their own change, as hundreds of thousands of women's groups across West Bengal adopt inclusive change agendas incorporating everything from economic participation to education, family welfare and social upliftment of women. The impact of the SHG movement on the gender landscape of rural West Bengal is permanent, as women from all sections of rural society have acquired new-found self respect and won the respect and admiration of others. The SHG movement has also united women across economic, political and cultural divisions, on the basis of the commonality of their gender needs. A logical development that has emerged naturally out of the rapid proliferation of the movement across the state has been for the institutions of participatory governance to entrust women's SHGs with growing responsibility, giving them a key presence in West Bengal's human development effort.

The SHG concept first emerged during the Ninth Plan when the Integrated Rural Development Programme [IRDP] was merged in 1999-2000 with several other employment-support schemes like TRYSEM [Training of Rural Youth for Self-Employment], DWCRA [Development of Women and Children in Rural Areas], SITRA [Supply of Improved Tool-Kits to Rural Artisans], GKY [Ganga Kalyan Yojana], MWS [Million Wells Scheme], etc., into the Swarnajayanti Gram Swarozgar Yojana [SGSY], with 75:25 fund-sharing arrangements between the Central and State Governments. Earlier, the DWCRA scheme had already experimented with forming women's groups under bank linkage, which functioned as rotating savings and credit associations [ROSCAS]. From the program-orientation of the previous rural employment-support schemes, this integrated approach moved towards process orientation, creating a space for rural SHGs to emerge as mediating agencies while handling concessional credit and subsidies extended under SGSY for the alleviation of rural poverty. Almost concurrently, under the process initiated by NABARD for extending bank interlinked microcredit to rural areas, SHGs were visualised as intermediary agencies during loan advances by the banks to rural communities.

While the SGSY SHG groups could have a mixed gender composition, they drew their membership exclusively from the BPL lists prepared by the Gram Sabhas. The NABARD approach in contrast, seeking to augment rural women's command over financial resources, focused primarily on the formation of women's SHGs whose members did not necessarily come from BPL sections. Except for this distinction, the operationalisation of the two approaches was essentially the same, proceeding in three sequential phases involving

- social mobilisation, group formation and setting of common thrift agenda during the initial phase
- capacity-building and training for social intermediation in the second phase, with capital augmentation through revolving funds composed of thrift, credit and subsidies
- launching of SHG-based economic activities in the third phase.

With around 10-12 members drawn from homogeneous social backgrounds, an SHG typically encourages the pooling of their voluntary savings into a common bank account, against which minor credit can be advanced initially to group-members. As the managerial capacity of the group develops and the SHG becomes capable of handling financial responsibilities on a larger scale, it becomes eligible for drawing collateral-free loans from the supporting bank to sustain the economic activities commenced by group-members.

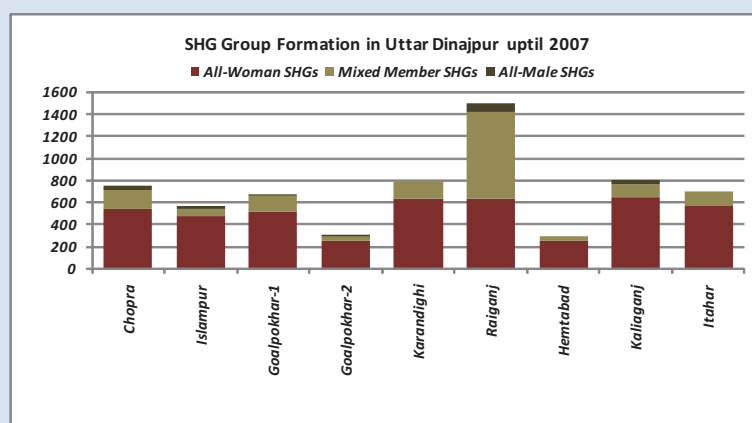
Commencing in 1999, the SHG movement in West Bengal has rapidly grown into a major initiative for the economic and social empowerment of women. The state now has a network of over 8.5 lakh SHGs, 90 percent of which comprise women's groups, among which around 40 percent operate in rural areas in close conjunction with the panchayats. Since the competence of these women's groups also extends strongly into the social arena, their assistance is increasingly being invoked for raising literacy and health awareness among rural women and enhancing their social security. Although the SHG movement got off to a more belated start in the northern districts of West Bengal, it has shown healthy growth since then. By the end of 2007, 6479 SHGs were already functioning in different parts of Uttar Dinajpur. Raiganj block alone accounted for nearly a quarter of these, with 1508 SHG groups in operation. In most other Uttar Dinajpur blocks too, the progress of the SHG movement was relatively even, except in Islampur and Goalpokhar-2 where the number of functioning SHGs was small compared to the overall size of the blocks. Matching the state-wide trend, 4611 of the Uttar Dinajpur SHG groups were composed exclusively of women, while women were also co-members in another 1658 groups. Thus, with joint or exclusive women's participation in over 97 percent of the SHG groups in the district, the success of the recent SHG initiative in reaching out to the women of Uttar Dinajpur is self-evident. Somewhat curiously though, Raiganj block with the largest number of functioning SHGs, also accounts significantly for the largest number of all-male SHGs, with Kaliaganj, Chopra and Islampur making up most of the rest. In the remaining Uttar Dinajpur blocks, all-male SHGs are virtually absent. Since Raiganj also accounts for well over half the SHGs with mixed membership, it is evident that the proportionate level of women's SHG participation is much lower in SHGs located around the headquarters block, although it remains very high elsewhere throughout the district.

Despite its late start, the proliferation of the SHG network across Uttar Dinajpur has thus been largely satisfactory, reflecting the administrative emphasis given to the implementation of the programme and the wide acceptance it has gained among rural women. The organic evolution of SHGs into women's advocacy groups in their own right has also thrust them into the centre-stage of most women's development initiatives in the district, including community movements for social transformation and cultural change. As a result, it has also become very natural for women's SHGs to be consulted and inducted as community based organisations of women for improving the delivery of development schemes in panchayat areas, where women represent a vital section among potential scheme beneficiaries.

**Table: Regional Spread of the SHG Network in Uttar Dinajpur District, 2007**

CD Block	Total SHGs	All-Woman SHGs	% All-Woman SHGs	Mixed Membership SHGs	% Mixed Membership SHGs	All-Male SHGs	% All-Male SHGs	Ungraded SHGs	% Ungraded SHGs
Chopra	766	546	71.3	174	22.7	46	6.0	287	37.5
Islampur	579	489	84.5	66	11.4	24	4.1	340	58.7
Goalpokhar-1	679	531	78.2	142	20.9	6	0.9	369	54.3
Goalpokhar-2	320	264	82.5	45	14.1	11	3.4	175	54.7
Karandighi	801	643	80.3	158	19.7	0	0.0	378	47.2
Raiganj	1508	643	42.6	784	52.0	81	5.4	357	23.7
Hemtabad	305	266	87.2	39	12.8	0	0.0	85	27.9
Kaliaganj	819	657	80.2	120	14.7	42	5.1	277	33.8
Itahar	702	572	81.5	130	18.5	0	0.0	284	40.5
<b>Uttar Dinajpur DT</b>	<b>6479</b>	<b>4611</b>	<b>71.2</b>	<b>1658</b>	<b>25.6</b>	<b>210</b>	<b>3.2</b>	<b>2552</b>	<b>39.4</b>

Source: DRDA Cell, Office of the District Magistrate, Uttar Dinajpur



However, while all these add-on SHG functions result from the presence of these groups as grassroots organisations of rural women, the true purpose behind SHG formation has been the enlargement of women's economic roles on the self-help principle with support from new credit lines that specifically target the launching of enterprise activities by rural women. Thus the yardstick for measuring the successes and failures of the SHG movement is the capacity attained by the SHG groups to initiate economic activities by their members based on bank-linked micro finance. In the three-phased process of SHG formation and capacity development, the groups are graded at two points after their initial formation. SHGs that pass the Grade 1 assessment are trained specifically for financial and social intermediation in the second phase, while their capital sources are augmented through financial linkage with the supporting banks. Upon successful completion of SHG capacity-building activities in the second phase, the groups go through another grading exercise. Those clearing the Grade 2 assessment are deemed eligible for full bank credit support amounting to a multiple of the capital they have already mobilised through their own collective thrift and savings effort. The Grade 2 SHGs can subsequently launch full-scale economic activities with the participation of their members and the capital support pledged to them by the banking partners.

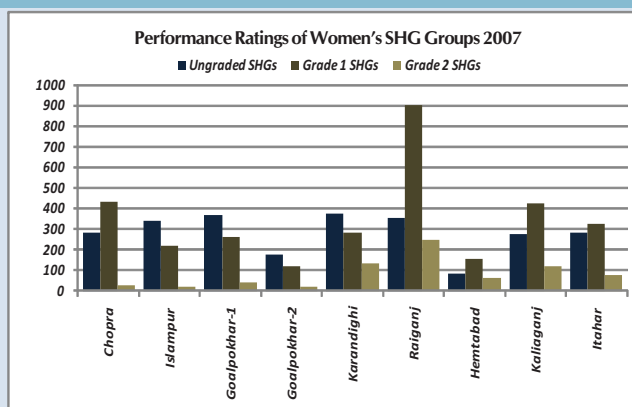
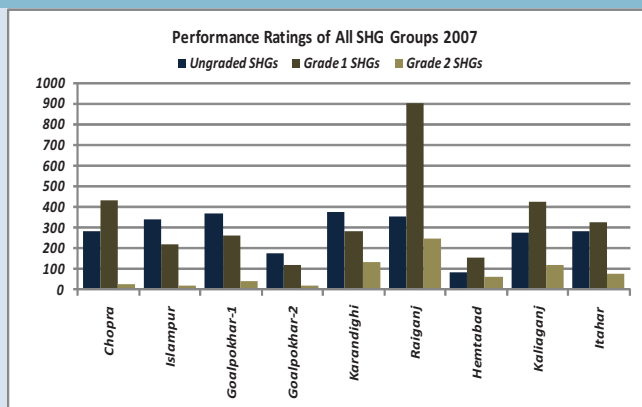
While the pace of group formation has been satisfactory in Uttar Dinajpur, the grading performance of the SHG groups leaves much to be desired. Out of 6479 SHG groups that had been formed in the district till 2007, 2585 (40%) were still ungraded, existing largely as community organisations that sometimes finance minor consumption credit needs through common thrift, without the ability to channelise these funds into productive activities for want of bank support. Of the 3894 remaining mixed-member and all-woman groups that had acquired some form of grading, the vast majority were still at Grade 1 stage without the ability to branch out into mainstream enterprise activities. Thus less than 12 percent of the SHG groups in Uttar Dinajpur and only 7.4 percent of the all-women groups had acquired Grade 2 status, entitling them to full-fledged bank support for group lending and enterprise activities. Among 4611 all-woman SHGs in the district, the proportion of Grade 2 groups was even lower at 7.4 percent.

In broad regional terms, therefore, the grading performance of SHGs was better in the Raiganj SD blocks and poor in the Islampur SD blocks. Chopra was the only block in the Islampur region where the proportion of graded SHGs surpassed the proportion ungraded SHGs, while under Raiganj SD this was invariably true in all four blocks. In Muslim-dominated areas like Goalpokhar-1, Goalpokhar-2 and Islampur where 32 percent of Uttar Dinajpur's SHGs have been formed, the grading performance was distinctly poor. Grade 2 level performance was better throughout the Raiganj SD blocks and was best in the headquarters block of Raiganj Sadar, where most of the mixed member and all-male SHGs were located.

**Table: Graded Performance of SHGs in Uttar Dinajpur, 2007**

CD Block	Total SHGs	Total SHGs in Grade 1	All-Woman SHGs in Grade 1	% SHGs in Grade 1	% All-Woman SHGs in Grade 1	Total SHGs in Grade 2	All-Woman SHGs in Grade 2	% SHGs in Grade 2	% All-Woman SHGs in Grade 2
Chopra	766	431	288	56.3	37.6	28	25	3.7	3.3
Islampur	579	218	188	37.7	32.5	21	17	3.6	2.9
Goalpokhar-1	679	262	200	38.6	29.5	42	22	6.2	3.2
Goalpokhar-2	320	121	98	37.8	30.6	24	22	7.5	6.9
Karandighi	801	286	243	35.7	30.3	137	77	17.1	9.6
Raiganj	1508	904	393	59.9	26.1	248	118	16.4	7.8
Hemtabad	305	155	142	50.8	46.6	65	49	21.3	16.1
Kaliaganj	819	426	361	52.0	44.1	118	96	14.4	11.7
Itahar	702	329	266	46.9	37.9	79	56	11.3	8.0
<b>Uttar Dinajpur DT</b>	<b>6479</b>	<b>3132</b>	<b>2179</b>	<b>48.3</b>	<b>33.6</b>	<b>762</b>	<b>482</b>	<b>11.8</b>	<b>7.4</b>

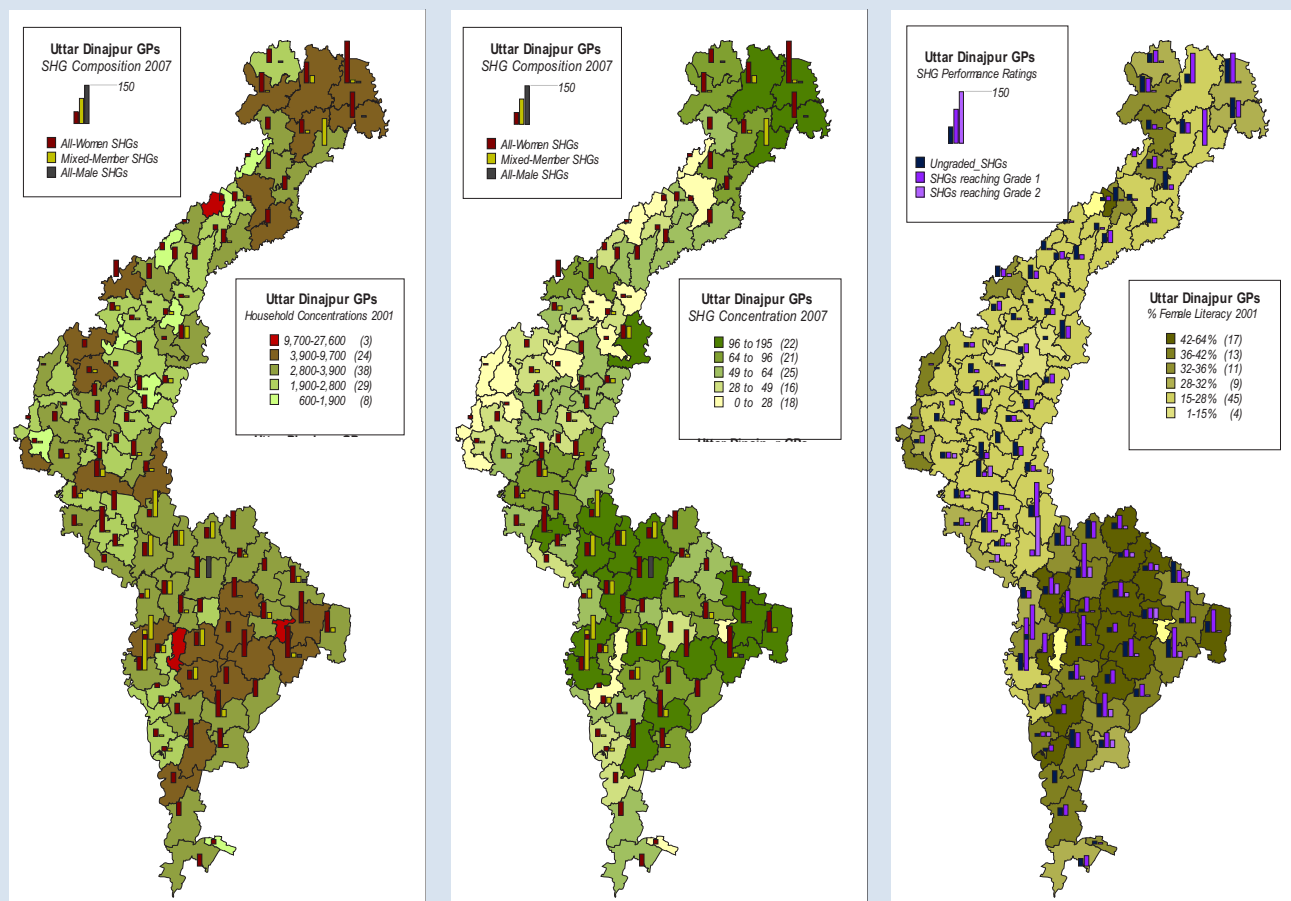
Source: DRDA Cell, Office of the District Magistrate, Uttar Dinajpur



Besides, financial intermediation for rural micro credit delivery by the banking system, the other important function increasingly assigned to women's SHGs in Uttar Dinajpur is social intermediation and advocacy in relation to the implementation of Government programmes and schemes. However, the effectiveness of the existing groups as grassroots organisations of rural women depends very much on the outreach that the SHG movement has made into Uttar Dinajpur's rural areas. Since this cannot be examined at block level because of the aggregated character of the block data, the present outreach of the SHG network into the panchayat areas of the district is analysed spatially in the associated regional maps.

Rather than being dispersed evenly across the district, the existing SHGs are densely concentrated in particular regional clusters and are spread thinly on the ground elsewhere. Through vast parts of Islampur and Goalpokhar-2 blocks, their presence is still negligible. Within Goalpokhar-1, Karandighi, Itahar and Hemtabad, the distribution of SHGs is highly uneven. Hence the primary subregions where the SHG movement is currently focused include major parts of Chopra, Raiganj and Kaliaganj blocks. SHGs within Chopra block present the best overall picture. They have a relatively strong presence across all 8 GPs and their concentration in the cluster of isolated border GPs of Majhiali, Daspara, Ghirnigaon and Lakhipur is high. The adjacent GPs of Ramganj-1 and Kamalgaon-Sujali within Islampur block also show a relatively strong concentration of SHGs, but their presence ranges from moderate to low in the other Islampur GPs and once again is thicker in the GPs bordering Bangladesh and thinner in those that border Bihar. Within Goalpokhar-1 block, high SHG concentration is limited to Goalpokhar GP, Panjipara and Pokharia and is also relatively thick in the cluster of GPs spanning Goti, Sahapur-1 & 2 and Gogaon-2 stretching from the Bangladesh border into Torial and Bidyanandapur GPs in Goalpokhar-2 block. Throughout the rest of Goalpokhar-2, the SHG presence is markedly thin. Within Karandighi block, the spread of SHGs is largely confined to the central cluster of GPs in the Lahutara-Domohana-Rasakhawa subregion, and in Lahutara-2 their presence is notably high. Within the Raiganj SD blocks, the two main subregions of SHG concentration include the northern GPs of Raiganj Sadar stretching from Bhatun, Mahipur and Bindol on the Bangladesh border through the central GPs to Bahin and Gouri GPs bordering the Mahananda river and Bihar. The other cluster with intense SHG concentration is stretches from Anantapur, Dhankail and Radhikapur along the Kaliaganj-Bangladesh border through Bochadanga and Mustafanagar GPs in Kaliaganj block to join Barua GP in Raiganj Sadar. In Birghai GP (Raiganj Sadar block) and Malgaon and Baruna GPs (Kaliaganj block) which form a hinterland to this subregion, the SHG presence is relatively strong, also spilling over into the adjacent Itahar-Patirajpur-Durlabhpur subregion in northern Itahar block. However, the spread of SHGs through the other Itahar GPs ranges from moderate to negligible.

MAP: Regional Proliferation of SHGs across Uttar Dinajpur Gram Panchayats, 2007



As can also be seen in the associated regional maps, the patterns of concentration of SHGs in Uttar Dinajpur are not directly related either to the patterns of dispersal of female literacy or to the patterns of concentration of rural households. Rather, as the relatively strong concentration of SHGs along the border GPs appears to suggest, the responsiveness to the formation of SHGs especially among rural women seems to be conditioned by whether these women already have access to alternative economic activities or not. Livelihood avenues for rural women are more limited in the GPs located along the international border, because of the low state of development in these regions. The response of rural women to SHGs is more limited in GPs located in the principal cultivating areas and along the interstate border, where the means for alternative livelihoods are more diverse.

This is borne out by the close relation between the formation of all-woman SHGs and the patterns of SHG concentration. In the GPs where SHG concentration is most intense, the presence of all-woman SHGs and mixed-member SHGs is strong. Grading performance of the SHGs is also better in these GPs, where the SHGs have the potential to open new economic avenues for their women members in places where the other livelihood opportunities are few. However, the concentration of Grade 2 SHGs is limited mainly to GPs within the immediate vicinity of major urban settlements like Raiganj and Kaliaganj. Proximity or distance from urban centres therefore seems to have an important bearing on whether the SHGs have the potential to take up full-scale enterprise activities or not.



## WOMEN'S SECURITY IN UTTAR DINAJPUR

## Incidence of Marital Crimes

Although women in all societies face similar personal and social insecurities which render them vulnerable to gender crimes like exploitation, harassment and abuse, the incidence of crimes against women in India shows that the maximum number of offences is actually committed within the marital home. As seen from disaggregated data on crimes against women, Uttar Dinajpur is no exception to this, with over 587 marital crimes in this category being reported from 2005 till August 2007. Policing of marital crime in India has in fact improved after the constant struggle of women activists to ensure full implementation of related laws. This intervention has been particularly effective in bringing dowry related offences to light, with a large number of cases of cruelty and torture by the spouse and in-laws being registered at police stations every year u/s 498A IPC. Cases in this category make up around 49 percent of the new cases registered in Uttar Dinajpur as crimes against women. Because of their nature, such cases involve multiple arrests. Since the data also show that the number of chargesheets filed has kept pace with the case registrations, the backlog of cases pending in this category at the end of the year is currently small.

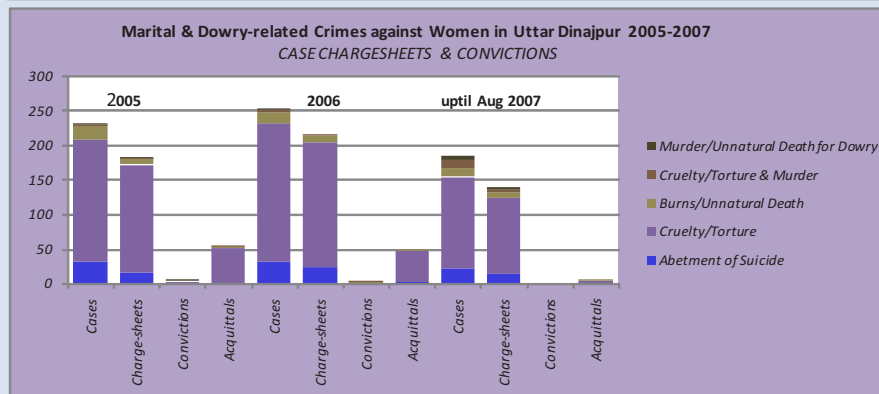
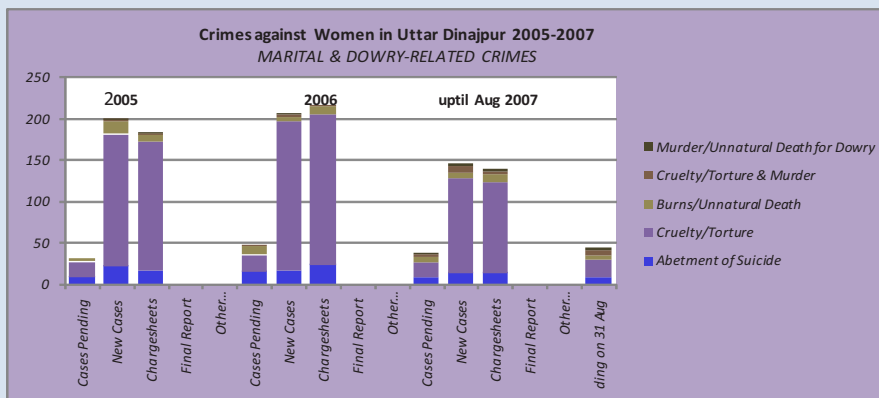
**Table: Crimes against Women [CaW] Registered in Uttar Dinajpur District, 2005-2007**  
**A: MARITAL & DOWRY-RELATED CRIMES**

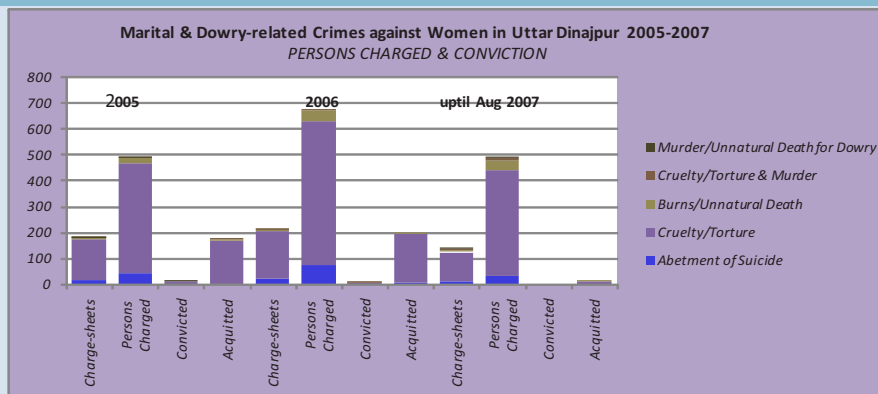
Year	Cases pending at start of Year	New Cases Registered	Cases Charge-sheeted	Final Report [FRT]	Cases Disposed of Otherwise	Total Case Disposals	Cases pending at Year-end
u/s 306 IPC: Abetment of Suicide							
2005	10	23	17	0	0	17	16
2006	16	17	24	0	0	24	9
uptil August 2007	9	14	14	0	0	14	9
u/s 498A IPC: Cruelty/Torture by Husband/In-Laws							
2005	18	159	156	0	1	157	20
2006	20	180	182	0	0	182	18
uptil August 2007	18	114	110	0	1	111	21
u/s 498A/304B IPC: Death from Burns, Bodily Injury or other Unnatural Causes within 7yrs of marriage resulting from Cruelty/Torture by Husband/in-Laws in pursuit of Dowry							
2005	3	16	9	0	0	9	10
2006	10	5	9	0	0	9	6
uptil August 2007	6	7	9	0	0	9	4
u/s 498A/302 IPC: Cruelty/Torture/Bodily Injury & Murder by Husband/in-Laws							
2005	0	2	1	0	0	1	1
2006	1	4	2	0	0	2	3
uptil August 2007	3	8	4	0	0	4	7
u/s 498A/302/304B IPC: Murder or Death from Burns, Bodily Injury or other Unnatural Causes within 7yrs of marriage resulting from Cruelty/Torture by Husband/in-Laws in pursuit of Dowry							
2005	0	1	1	0	0	1	0
2006	0	2	0	0	0	0	2
uptil August 2007	2	4	3	0	0	3	3

Source: District Crime Records Bureau, Police Department, Uttar Dinajpur

Unlike cases u/s 498A IPC, the other crimes against women occurring within the marital home involve the death of the victim. In the first category of offences, u/s 306 IPC, where the victim has been driven to suicide under the abetment of the spouse or other persons, the marital circumstances are very similar to other marital offences resulting in murder or unnatural death. Since cases of abetment to suicide are regularly registered every year in Uttar Dinajpur and chargesheets are regularly filed, this would indicate that many women face regular harassment within their marital homes, driving some of them to the extreme action of taking their own lives. The use of the penal provision u/s 306 IPC is thus able to ensure that the persons who were guilty of abetment do not escape justice just because the victim has committed suicide. In other related cases where unnatural death and murder are involved, the death of the victim is usually preceded by an undisclosed period of harassment and torture, where the victim had been coerced to silence, instead of availing relief u/s 498A IPC. Therefore all marital offences involving the unnatural death or suicide of the victim can be regarded as extreme crimes, which could have been prevented if the contributing circumstances had been reported to the police well in time.

As overall case registrations under these categories in Uttar Dinajpur show, more offences of this nature fall u/s 498A/304B IPC where the death of the victim by burns or other unnatural causes has occurred within the first seven years of marriage. In other offences where substantive evidence has been found, a case of murder is registered along with accompanying charges of cruelty and torture u/s 498A/302 IPC and/or 304B IPC. Where specific indication exists, the case is registered as a dowry death u/s 498A/302/304B IPC. While the absolute number of such crimes registered in Uttar Dinajpur may appear to be small, it should be remembered that the large number of case registrations u/s 498A IPC probably contribute to this, by preventing marital discord and cruelty from degenerating to the point where women victims lose their lives. The large number of cases of cruelty and torture that are registered are also likely to have a deterrent effect in changing social attitudes towards women within their marital homes.





An important indication of the investigative and judicial status of cases where marital offences against women had been registered is provided in the number of cases chargesheeted and the rate of convictions and acquittals. As evident in case statistics for the period 2005-August 2007 [see table on Case Disposals below], chargesheets were usually filed in well over 80 percent of the cases registered u/s 498A IPC. Chargesheet rates in abetment to suicide cases varied between 50-70 percent but were often lower in dowry death cases u/s 498A/304B IPC. Acquittal rates were on the hand much higher than conviction rates for most dowry related offences, especially in cases of marital cruelty and torture chargesheeted u/s 498A IPC. For cases u/s 306/302/304 IPC, case disposal rates were commensurate with number of chargesheets filed, but conviction rates remained marginal. Basically, while low chargesheet rates were usually more indicative of difficulties within the investigative process, the low rates of convictions and acquittals in relation to the number of cases where chargesheets were filed pointed to the long and drawn out judicial process with respect to marital and dowry crimes against women, allowing many offenders to escape the immediate consequences of their acts. Particularly in cases chargesheeted u/s 498A IPC, where torture and cruelty towards women victims was likely to be repeated unless the offenders were immediately brought to the book and punished, these were therefore classic instances of justice delayed being justice denied. High acquittal rates in these cases of cruelty and torture therefore predisposed the district to recurring situations where the victims ultimately lost their lives.

Further qualifications would also apply in cases where section 304B IPC relating to dowry death had been invoked, instead of 302 IPC which involved a murder offence. For cases registered u/s 302 IPC, where the cause of death of the victim had been deemed unnatural but a murder charge had not been brought against the offenders, conviction rates were also generally poor because of the differences in the enquiry process for unnatural death and for murder. Thus although both IPC sections implied that the victims had lost their lives in unnatural circumstances, cases filed u/s 302 IPC attracted the lesser punishment of imprisonment for 7 years extending to life imprisonment, instead of the mandatory life imprisonment or death sentence that would be attracted by a full-fledged murder trial. . A close look at the number of persons charged for every case chargesheeted are found to more than one for all the years, as is often the case in marital offences involving multiple offenders. However, in such cases u/s 498A IPC, acquittal rates are also high matching with the number of persons charged and conviction rates are negligible for reasons alluded to earlier.

**BOX - TEXT**
**DOWRY DEATH IN UTTAR DINAJPUR**

The institution of dowry has long been identified as a key instrument for the progressive oppression of women in India. The pressure on families to the secure marital prospects of their daughters with ample dowry payments makes girls appear burdensome and unwanted. So long as the dowry represented a gift given voluntarily by parents to daughters who were starting a new home, it did not constitute a social problem. But as the practice in present-day society has evolved into a means of accumulation for those favoured with eligible sons, dowry demands are pushed to the limits of the financial capability of the girls' parents and assume a menacing dimension.

Although urbanisation is still a rare feature in Uttar Dinajpur and the district has a largely rural complexion, dowry related crimes show a rising trend and occur with regularity in both towns and village areas. No community group is now immune to such offences, including ST sections among whom dowry was not traditionally practised. Between 2003 and 2005, 359 dowry related cases were registered in Uttar Dinajpur district, representing around 16 percent of the total dowry cases registered in the six North Bengal districts. In 85 cases, the offences had resulted in the death of the victim, with 49 women being driven into taking their own lives and 36 others being done away with by their husbands and in-laws.

**Table: Dowry-related Police Cases Registered in Uttar Dinajpur & North Bengal, 2003-2005**

	2003	2004	2005		2003	2004	2005
Cases u/s 498A IPC: Cruelty/Torture by Husband/In-Laws				% to North Bengal Cases u/s 498A IPC			
Uttar Dinajpur	64	148	62		9.6	20.6	16.5
North Bengal Region	665	719	376				
Cases u/s 498A/306 IPC: Cruelty/Torture & Abetment to Suicide				% to North Bengal Cases u/s 498A/306 IPC			
Uttar Dinajpur	21	21	7		15.0	11.3	13.2
North Bengal Region	140	186	53				
Cases u/s 498A/302 IPC: Cruelty & Murder by Husband/in-Laws				% to North Bengal Cases u/s 498A/302 IPC			
Uttar Dinajpur	2	-	-		15.4	-	-
North Bengal Region	13	30	11				
Cases u/s 304B IPC: Dowry Death				% to North Bengal Cases u/s 304B IPC			
Uttar Dinajpur	14	9	10		31.8	25.7	41.7
North Bengal Region	44	35	24				
Cases u/s 498A/304 IPC: Cruelty & Dowry Death				% to North Bengal Cases u/s 498A/304 IPC			
Uttar Dinajpur	-	-	1		-	-	100.0
North Bengal Region	6	5	1				
Total Dowry-related Cases				% to North Bengal Dowry-related Cases			
Uttar Dinajpur	101	178	80		11.6	18.3	17.2
North Bengal Region	868	975	465				

Source: State Crime Records Bureau, Police Department, West Bengal

Analysing dowry crime figures for Uttar Dinajpur in terms of the scale of the offences committed, the registration of cases u/s 498A IPC involving cruelty and torture by in-laws was generally much lower in proportion to the North Bengal total than the incidence of suspected dowry deaths u/s 304B IPC, which exceeded 31 percent of the North Bengal cases in 2003 and 41 percent in 2005. Terminal crimes u/s 306/302/304B IPC that lead to loss of life by the victim either by her own hand or through the action of others occur at the end of a chain of offences involving cruelty and injury, which if registered as cases at that early stage would probably have preserved the lives of the victims. The high proportion of crimes registered u/s 304B IPC in Uttar Dinajpur, when compared to North Bengal as a whole, would imply that women in the district are much more vulnerable to terminal marital crimes than elsewhere within the North Bengal region.

**Table: Case Registrations & Arrests for Marital Offences in Uttar Dinajpur & North Bengal, 2003-2005**

District/Region/Year	Cruelty/Torture u/s 498A IPC		Abetment to Suicide u/s 498A /306 IPC		Cruelty/Torture /Death u/s 498A/ 304 IPC		Dowry Death u/s 304 IPC		Cruelty/Torture/ Murder u/s 498A/ 302 IPC	
	Cases	Arrests	Cases	Arrests	Cases	Arrests	Cases	Arrests	Cases	Arrests
Uttar Dinajpur										
2003	62	60	7	10	1	2	10	15	0	0
2004	148	213	21	30	0	0	9	13	0	0
2005	64	93	21	30	0	0	14	29	2	3
North Bengal Region										
2003	470	609	53	111	1	2	24	43	11	23
2004	948	1442	186	333	5	9	35	60	30	58
2005	665	1101	140	279	6	11	44	107	13	22
AVERAGE GAP IN DAYS BETWEEN										
District/Region/Year	Cases	Arrests	Cases	Arrests	Cases	Arrests	Cases	Arrests	Cases	Arrests
Uttar Dinajpur	4.0	3.0	22.3	15.6	1095.0	547.5	33.2	19.2	547.5	365.0
North Bengal	0.5	0.3	2.9	1.5	91.3	49.8	10.6	5.2	20.3	10.6

Source: State Crime Records Bureau, Police Department, West Bengal

Three-year averages from case registration and arrest records available at the State Crime Records Bureau [SCRB] for the period 2003-2005 suggest that one case u/s 498A involving marital cruelty and torture is registered every 4 days in Uttar Dinajpur and that an arrest relating to the case is made once every 3 days. The difference of averages obviously arises because cruelty offences u/s 498A IPC are usually multi-person crimes involving more than one perpetrator. Since the North Bengal regional averages for cases and arrests serve to benchmark the averages for Uttar Dinajpur, it can be seen that the frequency of case registrations and arrests for cruelty and abetment to suicide u/s 498A/306 IPC and dowry deaths u/s 304 IPC is also relatively high in Uttar Dinajpur. Conversely, the frequency of case registrations and arrests in Uttar Dinajpur in cases u/s 498A/302 IPC and 498A/304 IPC is low and the average gap between successive case registrations and arrests is accordingly high in the district. However with 85 women losing their lives in the district over the 3-year period, from marital crimes involving suicide, extreme torture, unnatural deaths and murder, it appears on the average that one woman's life is lost every 13 days from marital crimes in Uttar Dinajpur, and that an arrest in this connection is made every 8 days.

### Crimes against a Woman's Person

Gender vulnerability of women is most apparent in cases of crimes committed on the women's person. Sexual harassment, molestation, rape, and rape accompanied by murder are all sexual crimes which directly assault the dignity of women. In that sense, these are also power crimes that perpetuate male power and subjugate women as a gender, under the threat of physical and sexual harm. While women face similar social insecurities in all countries and societies, the level of sexual violence inflicted on them is determined by prevailing norms and legal conventions within their family and their social environment, so that the level of violence tolerated within one culture may be rejected by the next. Often, during a process of human development when one set of cultural norms is being replaced by another, resistance by the sections of the community where social power is entrenched often takes the form of direct violence against women. Thus women invariably pay an unnecessarily high personal price in situations where the dominance and muscle of entrenched castes and communities is being challenged through economic and socio-political struggles. Rape can thus become a crime of domination and political violence, in addition to being a sexual crime. Similarly, sexual harassment and molestation may turn into acts of pure predation by dominant males and anti-socials, that are used for curbing the freedoms that women have earned through their personal accomplishments such as intelligence and education. The incidence of offences against the women's person in Uttar Dinajpur district may also be examined in this light.

All sexual crimes subject their woman victims to direct bodily abuse and harm, but also have a critical longterm impact on the mental health of the victims as well. In many cases, the potential offenders may turn out to be next of kin or neighbours or acquaintances. In others, the woman victim may be caught off-guard and overpowered by the offender, taking advantage of the victim's defencelessness and biological weakness. Sexual harassment and molestation often go unreported in most societies for want of courage and family support on the part of the victim or out of the fear of social stigma. In Uttar Dinajpur, the fact that only one case involving sexual harassment was registered with the police between 2005-August 2007 points to the gross under-reporting of such crimes. On the other hand, the number of molestation cases registered was strikingly high and the rate at which chargesheets were filed in these cases was almost commensurate, as a result of which the backlog of cases pending investigation at the end of each year was small. While identifiable factors such as social and cultural change, accompanied by the increasing movement of women from protected home environments into insecure workplaces and congregations may lie behind the relatively high incidence of molestation cases, this can also be attributable to improved police reporting, increased awareness of legal rights and protections, and attitudinal change within society that increases the registration of cases at the police stations, thereby improving the chances of redress. Either way, the incidence of case registrations, chargesheets and police investigations indicate a dynamically changing milieu within the district, where gender issues are gradually being propelled into prominence.

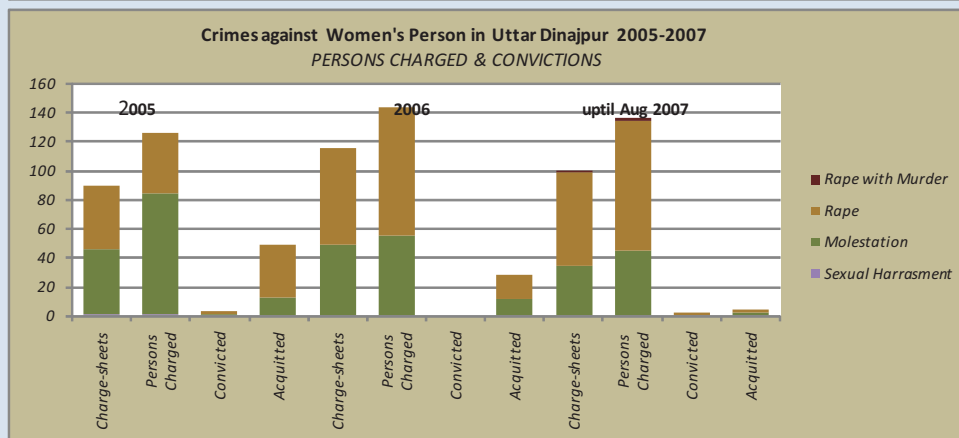
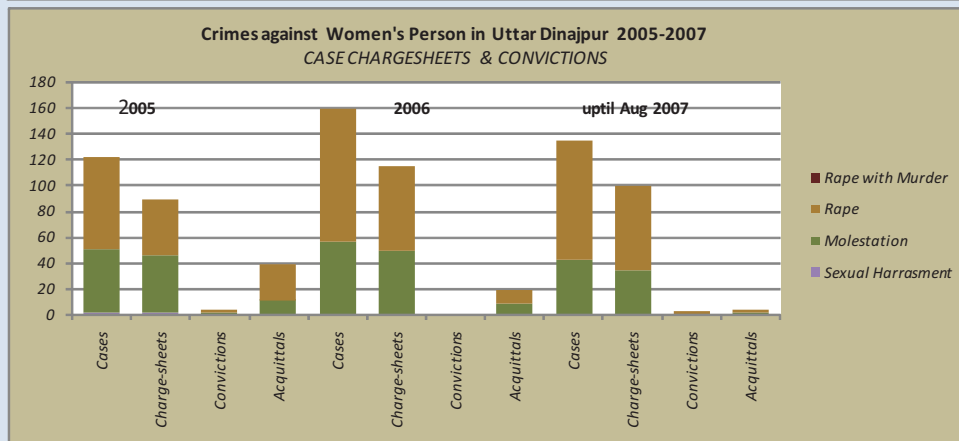
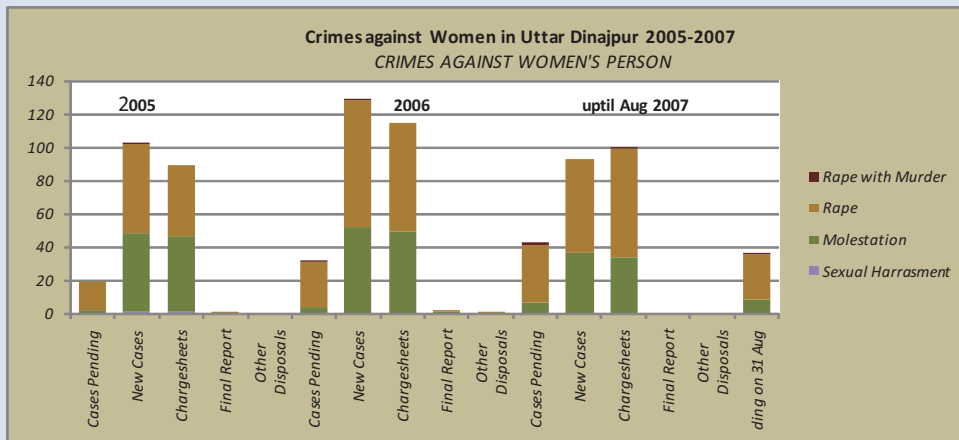
**Table: Crimes against Women [CaW] Registered in Uttar Dinajpur District, 2005-2007**  
**B: CRIMES AGAINST WOMEN'S PERSON**

Year	Cases pending at start of Year	New Cases Registered	Cases Charge-sheeted	Final Report [FRT]	Cases Disposed of Otherwise	Total Case Disposals	Cases pending at Year-end
<i>u/s 509 IPC: Sexual Harassment</i>							
2005	-	1	1	-	-	1	-
2006	-	-	-	-	-	-	-
uptil August 2007	-	-	-	-	-	-	-
<i>u/s 354 IPC: Molestation</i>							
2005	2	47	45	-	-	45	4
2006	4	52	49	1	-	50	6
uptil August 2007	6	36	34	-	-	34	8
<i>u/s 376 IPC: Rape</i>							
2005	17	54	43	1	-	44	27
2006	27	76	66	1	1	68	35
uptil August 2007	35	57	65	-	-	65	27
<i>u/s 376/302 IPC: Rape with Murder</i>							
2005	-	1	-	-	-	-	1
2006	1	1	-	-	-	-	2
uptil August 2007	2	-	1	-	-	1	1

Source: District Crime Records Bureau, Police Department, Uttar Dinajpur

Although both crimes occur in largely similar circumstance, rape offences u/s 376 IPC differ from molestation offences in the degree of sexual violence that is directly inflicted on the woman's person. In Uttar Dinajpur, the incidence of rape crime is high, marginally exceeding the number of cases where molestation has been reported. On the averages for the period between 2005-August 2007, one new case of rape was registered by the district police authorities every 5 days and one case of molestation was reported every 7 days. Thus, on the average, one woman was attacked by an act of sexual predation every 3 days in Uttar Dinajpur, which is a very high rate indeed. Since a large number of rape and molestation cases go unreported because of fears of further sexual violence or social stigma, the gradual rise in the number of cases registered may reflect better police reporting of rape and attempted rape crimes, rather than an actual increase in their occurrence. However, because of policing problems and slow and inconclusive investigation, the proportion of chargesheeted cases is generally lower than the number of new cases requiring investigation, as a result of which the backlog of pending cases u/s 376 IPC tends to be high. Considering the nature of the crime, this is unfortunate as the vulnerability of women victims and the chance that the offenders may make similar sexual attacks on others multiplies with delays in investigation and trial. In extreme cases, rape may be followed by murder in order to permanently silence the victim and protect the identity of the assailant.

In Uttar Dinajpur, 3 extreme crimes of this nature were registered between 2004-August 2007, while one case u/s 376/302 IPC was pending from before. However, since only 1 of these cases could be chargesheeted over the period for obvious reasons, the odds that perpetrators of rape crimes and rape with murder may escape altogether from arrest and punishment for their crime are relatively high in Uttar Dinajpur. Low charge-sheet rates usually imply that some time after the crime had been committed, the arrested offenders are able to move about freely on bail in full view of their victims. Meanwhile, the mounting backlog of cases awaiting conclusive investigation results in denied or deferred redress to the victims. In such an environment where many rape crimes can escape due punishment, the concept of legal deterrence ceases to have an impact on the minds of sexual predators, and the incidence of rape offences in the district may gradually increase.





The trial record for crimes committed against the women's person in Uttar Dinajpur is similarly distressing. Legal proceedings are typically long and drawn out, as a result of which the number of chargesheeted cases where a conclusive legal outcome is obtained is low. Once again, the number of case and person acquittals greatly exceeds the number of convictions. The implication of this is disturbing. Both molestation and rape cases involve serious acts of sexual predation, where the woman victim has overcome considerable trauma and personal fear as well as contrary advice from within her family, in order to register the case and publicly accuse her tormentor. The chances that the accusations made were false is extremely rare, since usually the opposite is true where many cases of sexual aggression often go unreported because of fear on the part of the victims. Hence the high rate of court acquittals is more representative of incomplete and shoddy investigation as well as basic lack of sympathy for the woman victims of sexual violence and predation. The fact that 20 victims of molestation as well as 60 women who had been raped were unable to secure justice even after their cases had been heard by the courts is extremely disturbing, since it also implies that an equivalent number of sexual offenders have been let off the hook to go out and perpetrate the same crimes all over again on other women in the district.

Most crimes of sexual predation registered u/s 354 IPC and 376 IPC involved more than one male offender. Thus in 128 cases of molestation chargesheeted in Uttar Dinajpur between 2005-August 2007, 183 male offenders were named as the perpetrators, implying an average of 1.43 offenders per molestation offence. Even rape crimes in the district involved an average of 1.26 offenders per offence, establishing that in a very large number of cases, further physical incapacitation of the woman victim was ensured by the participation of male accomplices. Sexual molestation as well as rape in Uttar Dinajpur is thereby largely identified as a group crime where each woman victim is generally set upon by more than one attacker. The offence is accordingly more severe, since it implies premeditated attack, as well as the direct assertion of physical and sexual power over a single and hapless woman victim by predatory males who have combined forces to rule out the chance of her rescue or escape. Since in purely psycho-sociological terms, this carries the unmistakable stamp of male criminal delinquency, it needs to be handled with prompt and severe authority to prevent the criminalisation of society. Thus the laxness of police investigators and criminal courts is an immediate danger sign. Lack of severity in dealing with and punishing male sexual predation is a sure way of increasing its recurrence. The fact that Uttar Dinajpur district has gradually become a hub for the trafficking of women and children is from the North Bengal region is at least partially connected with the fact that male sexual predation is dealt with leniently within the district, which removes any trace of deterrence and fear from the minds of young males and juveniles, who may eventually harden into repeat offenders as time goes by.

### **Crimes involving Abduction & Coercion of Women**

Kidnapping and abduction are both crimes involving coercion where victims are compelled to act against their own free will, under intimidation or duress from the offenders. By legal definitions u/s 362/363 IPC, the crime of kidnapping applies to the abduction of minor girls below the age of 18 years and minor boys below the age 16 years. In addition to circumstances where force is overtly used, a woman or girl who has crossed the age of 18 is also deemed to have been abducted if her compliance has been obtained fraudulently by the offender, through deceit with malafide intent.

**Table: Crimes against Women [CaW] Registered in Uttar Dinajpur District, 2005-2007**  
**C: CRIMES INVOLVING COERCION/etc.**

Year	Cases pending at start of Year	New Cases Registered	Cases Charge-sheeted	Final Report [FRT]	Cases Disposed of Otherwise	Total Case Disposals	Cases pending at Year-end
<i>u/s 363 IPC: Kidnapping &amp; Abduction</i>							
2005	7 27	22	1	2	25	9	
2006	9 46	31	2	3	36	19	
uptil August 2007	19 37	27	1	5	33	23	
<i>Offences under Immoral Traffic Prevention Act [ITPA]</i>							
2005	1	1	2	-	-	2	-
2006	-	-	-	-	-	-	-
uptil August 2007	-	1	-	-	-	-	1
<i>Other Crimes Against Women</i>							
2005	2	-	-	-	-	-	2
2006	2	8	4	-	-	4	6
uptil August 2007	6	5	7	1	-	8	3
<b>TOTAL CRIMES AGAINST WOMEN</b>							
2005	60	332	297	2	3	302	90
2006	90	391	367	4	4	375	106
uptil August 2007	106283	274	2	6	282	107	

Source: District Crime Records Bureau, Police Department, Uttar Dinajpur

Crime records for cases registered annually u/s 363 IPC show that kidnapping and abductions involving women recur frequently in Uttar Dinajpur district and their incidence has moreover been rising over the recent period. On an average, one such case occurs every 6.7 days. Although the rate at which case chargesheets have been filed indicates close policing of these offences, the backlog of unresolved cases has been rising, probably because of the high frequency with which they recur. Around 10 percent of the cases in any given year are resolved through other extra-legal means e.g. through consensual out-of-court settlement between the parties. In situations where the abduction charges turn out to involve elopement, cases are sometimes closed after legally valid marriage has been established. However, a primary difficulty in redressing kidnapping and abduction crimes arises because such redress can be secured only after the victim of abduction has been recovered. Even for those rescued, the process of reintegration and rehabilitation is slow and painful. Since social ostracisation occurs commonly in such cases, the victims are then forced to stay in correctional centres or short stay homes.



However, despite the high frequency of case registrations and case chargesheeting in Uttar Dinajpur in kidnapping and abduction offences, the trial record remains poor. Since most of the chargesheeted cases still await legal settlement after long periods, the judicial procedure appears to be slow and inconclusive. No conviction was ever recorded in any case u/s 363 IPC over the entire 32-month period between 2005-August 2007. On the other hand, the acquittal rates in such offences were generally high, with 26 percent of the cases chargesheeted over the period eventually ending in acquittals. Like most other crimes against a woman's person, kidnapping and abduction too are multi-person crimes, with approximately 2.84 offenders being charged against every chargesheeted case. Once again, the physical ability of a woman to resist her abduction is nullified through organised use of force by multiple abductors.

## Case Disposals and Legal Deterrence

Apart from preventive codes enforced through social concepts like izzat or family and social honour, which often fail to differentiate between the victim and the criminal after CaW offences have been committed, prevention of crimes against women rests on the twin principles of prompt detection and prompt investigation and legal deterrence. While the first of these is entirely within the police domain, the subsequent process depends on the efficiency of the investigation as well as the efficiency of the criminal justice system as enforced through the District & Sessions Courts. Weaknesses at this stage create legal loopholes through which the accused receive milder penalties compared to the gravity of their crimes or escape punishment altogether, subverting legal deterrence and increasing the frequency of repeat offences. Low rates of conviction and very high acquittal rates in the case records for CaW offences registered between 2005-August 2007 identify this as a major problem impeding the administration of criminal justice in Uttar Dinajpur.

**Table: Case Disposals relating to Crimes against Women [CaW] in Uttar Dinajpur District, January 2005-August 2007**

Year	2005 Total Cases	2005 Case Charge- sheets	2005 Case Convic- tions	2005 Case Acqui- ttals	2006 Total Cases	2006 Case Charge- sheets	2006 Case Convic- tions	2006 Case Acqui- ttals	2007 Total Cases	2007 Case Charge- sheets	2007 Case Convic- tions	2007 Case Acqui- ttals
<i>MARITAL &amp; DOWRY CRIMES</i>												
Abetment of Suicide	33	17	1	-	33	24	-	3	23	14	-	1
Cruelty/Torture	177	156	2	52	200	182	1	46	132	110	1	3
Burns/Unnatural Death	19	9	-	2	15	9	1	1	13	9	-	1
Cruelty/Torture & Murder	2	1	-	2	5	2	1	-	11	4	-	-
Murder/Unnatural Death for Dowry	1	1	2	-	2	-	-	-	6	3	-	-
<i>CRIMES AGAINST WOMEN'S PERSON</i>												
Sexual Harassment	1	1	-	-	-	-	-	-	-	-	-	-
Molestation	49	45	1	11	56	49	-	8	42	34	-	1
Rape	71	43	2	27	103	66	-	11	92	65	2	2
Rape with Murder	1	-	-	-	2	-	-	-	2	1	-	-
<i>CRIMES INVOLVING COERCION/etc</i>												
Kidnapping & Abduction	34	22	-	15	55	31	-	3	56	27	-	3
ITPA	2	2	-	-	-	-	-	-	1	-	-	-
Other Crimes	2	-	-	6	10	4	-	7	11	7	-	1
<b>Total Crimes against Women</b>	<b>392</b>	<b>297</b>	<b>8</b>	<b>115</b>	<b>481</b>	<b>367</b>	<b>3</b>	<b>79</b>	<b>389</b>	<b>274</b>	<b>3</b>	<b>12</b>

**Table: Case Disposals relating to Crimes against Women [CaW] in Uttar Dinajpur District  
January 2005-August 2007**

Contd.

Year	2005 Case Charge- sheets	2005 Persons Charged	2005 Persons Convic- ted	2005 Persons Acqui- tted	2006 Case Charge- sheets	2006 Persons Charged	2006 Persons Convic- ted	2006 Persons Acqui- tted	2007 Case Charge- sheets	2007 Persons Char- ged	2007 Persons Convi- cted	2007 Persons Acqui- tted
<b>MARITAL &amp; DOWRY CRIMES</b>												
Abetment of Suicide	17	43	3	-	24	75	-	5	14	34	-	2
Cruelty/Torture	156	425	6	168	182	558	8	190	110	407	1	12
Burns/Unnatural Death	9	23	-	7	9	41	3	4	9	37	-	3
Cruelty/Torture & Murder	1	2	-	4	2	5	2	-	4	10	-	-
Murder/Unnatural Death for Dowry	1	3	7	-	-	-	-	-	3	8	-	-
<b>CRIMES AGAINST WOMEN'S PERSON</b>												
Sexual Harassment	1	1	-	-	-	-	-	-	-	-	-	-
Molestation	45	83	1	12	49	55	-	11	34	45	-	2
Rape	43	42	2	37	66	88	-	17	65	89	2	2
Rape with Murder	-	-	-	-	-	-	-	-	1	2	-	-
<b>CRIMES INVOLVING COERCION/etc</b>												
Kidnapping & Abduction	22	50	-	26	31	84	-	3	27	91	-	8
ITPA	2	6	-	-	-	-	-	-	-	-	-	-
Other Crimes	-	-	-	59	4	10	-	33	7	26	-	1
<b>Total Crimes against Women</b>	<b>297</b>	<b>678</b>	<b>19</b>	<b>313</b>	<b>367</b>	<b>916</b>	<b>13</b>	<b>263</b>	<b>274</b>	<b>749</b>	<b>3</b>	<b>30</b>

Source: District Crime Records Bureau, Police Department, Uttar Dinajpur

**BOX-CHART: Indian Penal Code Provisions applicable to Crimes against Women**

IPC Section	Specific Nature of Crime against Woman	Penal Provision
<b>MARITAL CRIMES</b>		
306	Abetment of suicide	<i>Imprisonment extending to 10 years &amp; liable to fine</i>
498A	Husband or relative of husband of a woman subjecting her to cruelty	<i>Imprisonment for 3 years &amp; fine</i>
304	Punishment for culpable homicide not amounting to murder	<i>Imprisonment extending to 10 years &amp; liable to fine</i>
304B	Dowry death, by burns, bodily injury or unnatural death within 7 years of marriage if subjected to cruelty by husband or relative of husband for dowry	<i>Imprisonment not less than 7 years, extending to life</i>
302	Punishment for murder	<i>Death/Life imprisonment &amp; liable to fine to fine</i>

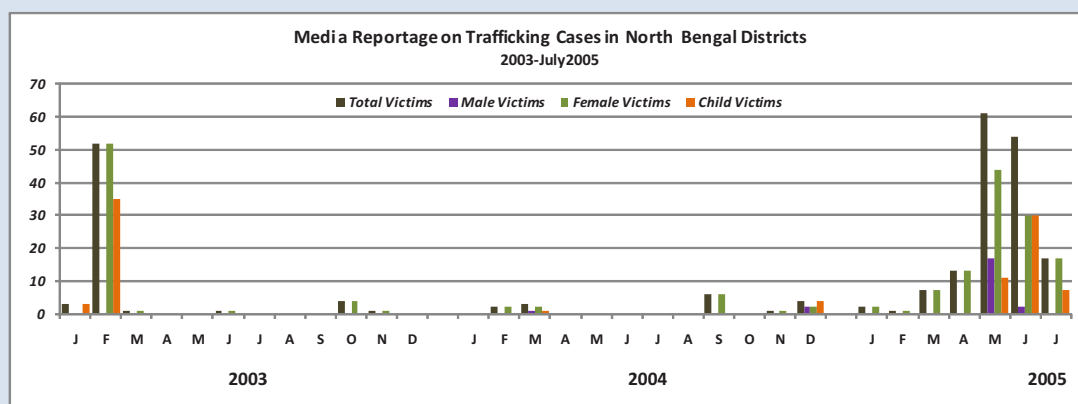
<i>CRIMES AGAINST WOMEN'S PERSON</i>		
509	Word, gesture or act intended to insult the modesty of a woman	<i>Imprisonment for 1 year or with fine or both</i>
350	Criminal force	<i>Imprisonment for 3 months or fine of Rs.500 or both</i>
357	Assault or criminal force in attempt wrongfully confine a person	<i>Imprisonment extending to 1 year or fine extending to Rs.1000 or both</i>
355	Assault or criminal force with intent to dishonour person, otherwise than on grave provocation	<i>Imprisonment extending to 2 years or fine or both</i>
354	Assault or criminal force to woman with intent to outrage her modesty	<i>Imprisonment for 3 years or fine or both</i>
376	Punishment for rape	<i>Imprisonment not less than 7 years extending to 10 years or life</i>
<i>TRAFFICKING &amp; RELATED CRIMES</i>		
362	Abduction	
363	Punishment for kidnapping	<i>Imprisonment extending to 7 years &amp; liable to fine</i>
374	Unlawful compulsory labour	<i>Imprisonment for 1 year or fine or both</i>
365	Kidnapping or abducting with intent secretly and wrongfully to confine person	<i>Imprisonment extending to 7 years &amp; liable to fine</i>
366	Kidnapping, abducting or inducing woman to compel her marriage, etc	<i>Imprisonment extending to 10 years &amp; liable to fine</i>
368	Wrongfully concealing or keeping in confinement, kidnapped or abducted person	<i>Imprisonment extending to 7 years &amp; liable to fine</i>
498	Enticing or taking away or detaining with criminal intent a married woman	<i>Imprisonment for 2 years or fine or both</i>
366A	Procuration of minor girl	<i>Imprisonment extending to 10 years &amp; liable to fine</i>
366B	Importation of girl from foreign country	<i>Imprisonment extending to 10 years &amp; liable to fine</i>
372	Selling minor for purposes of prostitution, etc	<i>Imprisonment extending to 10 years &amp; liable to fine</i>

## Offences involving Trafficking of Women

Although most commonly understood in contexts where women or young girls are bought and sold for prostitution, trafficking crimes in fact cover a much wider spectrum of commercial activities involving the illegal trade in human beings. These include organised transportation of human beings for work under forced or coercive conditions, for fraudulent or coerced marriage, sexual exploitation or other illicit purposes. Unlike abduction crimes, where the element of coercion is also present, trafficking is an organised commercial activity of unknown dimensions that involves multiple offenders and multiple abuses, and is therefore notoriously difficult to detect and stamp out. Under conditions of widespread poverty and lack of livelihood opportunities, women and children frequently fall victim to trafficking. Thus areas in which such conditions prevail are often targeted by organised trafficking networks. Lack of clear information on the scale and magnitude of trafficking operations is a major impediment in tackling trafficking crimes in

accordance with existing criminal laws. Many countries, including India, have thus enacted special purpose legislations such as the Immoral Traffic (Prevention) Act [ITPA] 1956, the Bonded Labour (Abolition) Act 1976, the Juvenile Justice Act 2000 etc. in order to strengthen the legal steps that can be undertaken to root out trafficking crimes. Besides such legal provisions, adequate reporting of trafficking crimes in media channels is also necessary to generate public vigilance and resistance that can bring future cases of trafficking to light.

Detailed study of media reportage on trafficking of women and children covering the North Bengal region during the years 2003-2005 reveals that the maximum number of victims rescued is from the districts of Darjeeling and Jalpaiguri, and Uttar & Dakshin Dinajpur. Trafficking victims in most cases are drawn from deprived sections within the community, namely the SCs, STs, Muslims and other community groups living below the poverty line [BPL]. The majority of victims are adolescents below the age of 18 years, who have been trafficked by two or more persons - both male and female - working in tandem. From rural areas, girl victims are frequently trafficked through lure or deception, such as the promise of marriage or jobs. In such cases, the parents or other family members are usually reported to have accepted prior payments from the traffickers.



While these reports carried in the regional media represent isolated instances of trafficking, analysis of the case records available from police sources reveals that organised networks appear to operate across the region, which target vulnerable women and children through multiple agents. While evidence of such organised procurement exists in several North Bengal districts, border areas in the region act as conduits for the transportation of unsuspecting women and children to faraway destinations in Delhi, Mumbai, Rajasthan and Haryana. With its 227km international border with Bangladesh and 206km interstate border with Bihar, Uttar Dinajpur has thus become a prime transit corridor, since it is well connected through roads by means of the arterial National Highway 34 and also offers easy access to the national railway network, through the adjacent city of Kishanganj on the Bengal-Bihar border. Media tracking thus shows that the incidence of trafficking offences in North Bengal has risen considerably after 2004, with both women and children being trafficked in large numbers.

Police crime records for Uttar Dinajpur however do not yet show the same rising trend in trafficking case registrations that are visible in media reports. An obvious difficulty that arises in registering cases of trafficking is that the facts of the case only become apparent after the offenders have been caught in the act or the trafficked victim has somehow managed to escape and return to her home. Thus the initial report registered by the police in most trafficking cases is that of a missing person. Only when the facts of the case become sufficiently evident can trafficking charges be brought. Usually, by that time, the offenders make good their

escape and are a long way away. Since many missing women who have been trafficked to distant states are never recovered, the district police records clearly represent the trends in police investigations rather than specific trends in the commitment of trafficking offences specifically. The recent rise in police case registrations and trafficking arrests in North Bengal may partially reflect increasing regional trends in the incidence of trafficking offences, as well as closer police surveillance and stiffer investigation of the reported offences. Similarly, the growth of regional reportage on the trafficking of women and children may also reflect better levels of media and public sensitisation about the menace of trafficking, as well as the increasing incidence of trafficking offences on the ground as well as better in the region. Since both trends show an increase, the incidence of trafficking in Uttar Dinajpur has undoubtedly been growing in recent years. As the arrest record for kidnapping and abductions shows, trafficking is a highly organised operation, involving racketeering and multi-person crimes. Often, while the small fry are apprehended, the big fish that mastermind the racket get away. This stresses the need for better police coordination across the country in combating trafficking crimes.

In police procedures, trafficking crimes involve multiple charges and multiple laws. In cases where women have been trafficked into prostitution, penal action against traffickers is taken by invoking the provisions of special laws under Immoral Traffic Prevention Act [ITPA]. Other related offences involving kidnapping, abduction, procurement or coerced marriage of young girls or forcible marriage come under related provisions u/s 363/366/366A/366B IPC, which are often used to chargesheet the above cases. While imprisonment of the traffickers for 7-10 years is possible under both these laws, case disposals generally take a long course since redress can only be obtained after the rescue of the woman victim. Prior to their legal prosecution, the single or multiple offenders who committed the crime have to be identified by the victim, which is only possible after the woman victim has been rescued or recovered.

**Table: Case Registrations & Arrests under ITPA in Uttar Dinajpur & North Bengal, 2003-2004**

District	2003 Cases Registered	2003 Total Arrests	2004 Cases Registered	2004 Total Arrests	Avg Arrests per Case [2003-2004]	Avg Ratio of Female to Male Arrests
Uttar Dinajpur	-	1	2	16	8.50	0.60
North Bengal Region	5	40	15	150	9.50	1.18

Source: State Crime Records Bureau, Police Department, West Bengal

**Table: Case Registrations against All Trafficking-related Offences in Uttar Dinajpur & North Bengal, 2003-2005**

District/Region	Cases u/ ITPA 2003	Cases u/ ITPA 2004	Cases u/ ITPA 2005	Cases u/s 363/366/ 366A &B IPC 2003	Cases u/s 363/366/ 366A &B IPC 2004	Cases u/s 363/366/ 366A &B IPC 2005	Total Traffick- ing -related Cases 2003	Total Traffick- ing -related Cases 2004	Total Traffick- ing -related Cases 2005
Uttar Dinajpur	-	5	1	-	37	14	23	42	na
North Bengal Region	1	18	na	118	198	77	142	216	na

Source: State Crime Records Bureau, Police Department, West Bengal



Police case and arrest records for 2003-2005 thus show that more trafficking cases are registered in Uttar Dinajpur under IPC provisions, while the number of ITPA cases in the district is generally much smaller than the total registered in North Bengal. Arrest records for ITPA offences clearly establish that organised racketeering is involved, since multiple persons are arrested. Nevertheless, the average number of arrests per case and the ratio of female to male arrests are much lower in Uttar Dinajpur than in North Bengal, suggesting that more arrests in the district take place during the trafficking stage, rather than after the victims have been delivered to the brothel keepers and madams. This finding is important in establishing that the rate at which women are being trafficked through Uttar Dinajpur is high. The fact that many more cases are registered proportionately u/s 363/366/366A&B IPC in the district strengthens the inference that Uttar Dinajpur on the whole is a source or transit point for trafficking rackets, rather than being their favoured destination.

### **BOX - TEXT**

#### **GENDER VULNERABILITY & TRAFFICKING**

Rural North Bengal has been frequently identified in media reports as well as national police records as a source area from which women and children are being trafficked to other states. The combination of isolated borderland locations with economic and educational deprivation acts as a predisposing factor. A 2006 study by the Centre for Women's Studies, North Bengal University, surveyed certain rural areas in North Bengal to capture the characteristic field-situations where such incidents recur and to identify vulnerable sections among the population who might fall easy victims to trafficking. The survey sites located in Uttar Dinajpur district were the villages of Baje Bindol under Bindol GP in Raiganj block, Radhikapur under Radhikapur GP in Kaliaganj block and Dharampur under Gulandar-1 GP in Itahar. Location of the survey sites along the long regional borders with Bihar and Bangladesh permitted the analysis of crime and policing problems along the international and interstate frontiers, as a result of which Uttar Dinajpur has become the principal conduit for cross-border trafficking of victims from North Bengal and Bangladesh to other Indian states.

The sample of respondents studied in Uttar Dinajpur was heavily weighted with socially and economically deprived community groups such as the SCs, STs and rural Muslims. Although the respondents came from mixed economic and cultural backgrounds, commonality was observed between them in relation to low educational achievement, poverty, assetlessness and rootlessness. Entry into wage-work took place at a remarkably young age in the district, usually at the instance of parents or relatives, at ages as low as 10-2 years among the Itahar respondents and 12.2 years among the Kaliaganj respondents. Most families depended on the earnings of a single main worker. Although several other family members were able to find occasional work, the seasonality of work opportunities also led to seasonality in their wage contributions to the households. Daily wages for manual work in 2005 ranged between Rs.30-40 per worker. Wage workers in Uttar Dinajpur were thus able to contribute between Rs.6600-8500 to the household income annually, depending on their location and the regularity of work. No scarcity wage was paid even at busy times (e.g. during agricultural transplanting and reaping) when rural labour demands are high, offering evidence that in the study region within Uttar Dinajpur, labour was in excess supply. This resulted in a relatively flat wage-path at most study locations, for both slack-season wages and wages during periods of higher labour demand. Potential wage incomes from the same quantum of rural work in Uttar Dinajpur were consequently found to be less than half of those derived from similar Darjeeling and Jalpaiguri survey sites.

Persisting social evils such as dowry-related indebtedness among the rural poor also compelled young children and women to leave their hearths and homes and emigrate outwards in search of casual or seasonal work, which was one of the principal reasons why they often became easy victims of trafficking. Many rural women, who had left the Uttar Dinajpur study villages to work elsewhere, scarcely made any visits thereafter to their village homes. While the determining factor that limited their return was scaled by the distance they had travelled, it also appeared likely that at least some of these rural women and children may have been trafficked.

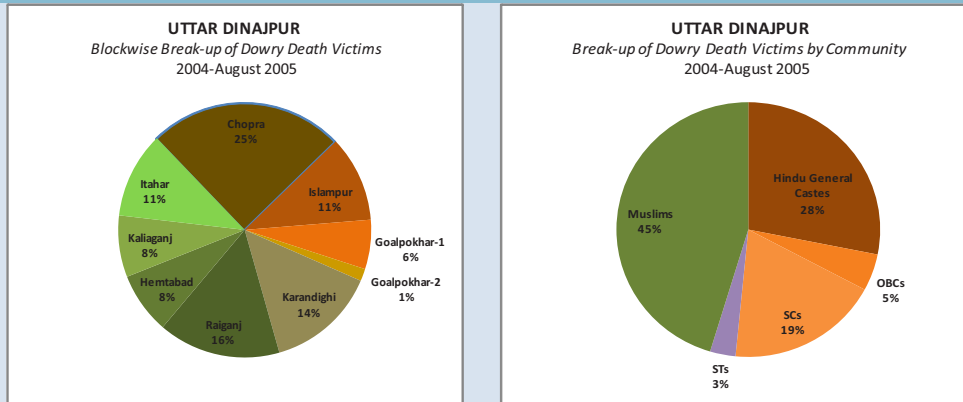
### Regional Incidence of Crimes against Women

Of 523 cases registered as offences against women in Uttar Dinajpur between 2004-August 2005, 64 had culminated with the death of women victims. Over 12 percent of the crimes against women in the district thus involved dowry deaths u/s 498A/302, 498A/304B and 498A/306, 498A/302/304 IPC. Including urban police station [PS] areas within the respective block identifiers, the incidence of dowry death was highest in Chopra, followed by Raiganj and Karandighi. However in broad regional terms, marital insecurity among women was highest in the five northern blocks of the district spanning Islampur subdivision [SD], which collectively accounted for 58 percent of the dowry deaths recorded in Uttar Dinajpur over the period. Although located within Islampur SD, Goalpokhar-1 & 2 reported the lowest incidence of dowry deaths overall, while Kaliaganj and Hemtabad recorded the lowest incidence in Raiganj SD. Thus the bulk of dowry deaths were concentrated in Chopra, Islampur and Karandighi under Islampur SD, and Raiganj block under Raiganj SD.

**Table: Victims of Dowry Death in Uttar Dinajpur,  
January 2004-August 2005**

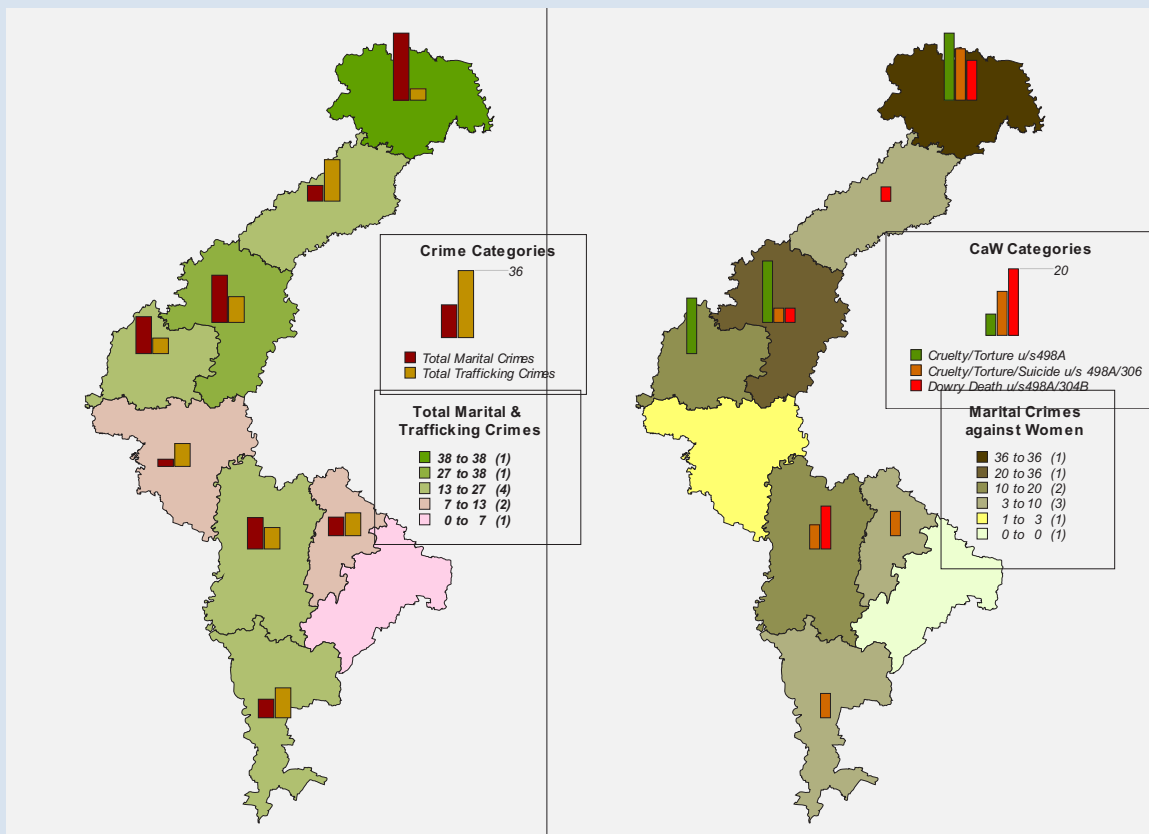
CD Blockwise Breakup	Dowry Deaths 2004	Dowry Deaths upto August 2005	Communitywise Breakup	CaW Cases 2004	CaW Cases upto August 2005
Chopra	9	7	Total CaW Cases	300	223
Islampur	3	4			
Goalpokhar-1	1	3	<b>Total Dowry Deaths</b>	<b>29</b>	<b>35</b>
Goalpokhar-2	-	1	Total Hindu Victims	28	34
Karandighi	2	7	<i>Hindu General Caste Victims</i>	8	10
Raiganj	6	4	<i>OBC Victims</i>	1	2
Hemtabad	3	2	<i>SC Victims</i>	6	6
Kaliaganj	1	4	<i>ST Victims</i>	1	1
Itahar	4	3	Total Muslim Victims	13	16

Source: District Crime Records Bureau, Police Department, Uttar Dinajpur



Dowry offences occurred with much greater frequency among the Hindu community groups in Uttar Dinajpur. Although in terms of individual categories, the largest number of women victims belonged to Muslim families who comprise just under 48 percent of the district population, the combined number of victims belonging to Hindu general castes, OBCs and SC families exceeded the number of Muslim victims in the district. SC families were more prone to dowry offence leading to death than either the OBC or ST segments. In terms of pro rata averages, an incident of dowry death occurred every 9.5 days among the Hindu communities, compared to one incident every 21 days among the Muslims. Given the respective proportional weights of these communities in the district population, marital insecurity among Hindu women was obviously much higher than among Muslim women.

**MAP: Regional Incidence of Crimes against Women in Uttar Dinajpur, 2005-2007**



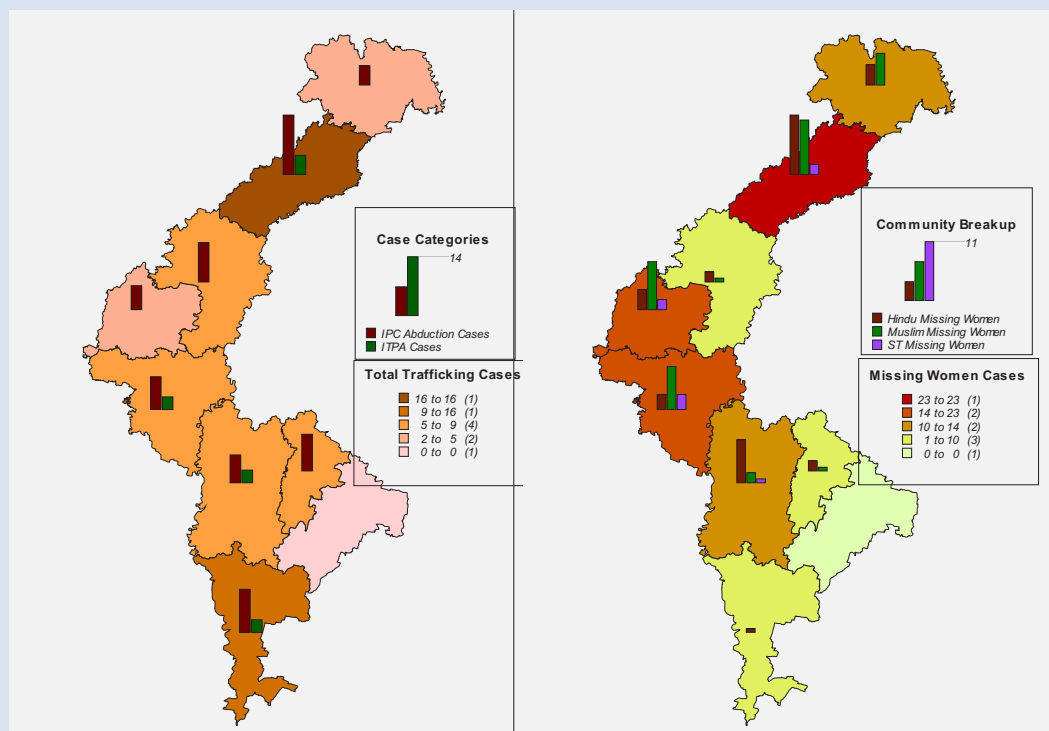
**Table: Regional Incidence of Crimes against Women [CaW] in Uttar Dinajpur, 2003-2005**

CD Block	Cruelty/ Torture u/s498A	Cruelty & Abetment to Suicide u/s498A/ 306	Dowry Death u/s498A/ 304B	Cruelty/ Torture &Murder u/s 498A/ 302	Total Marital Crimes against Women	Traffic king Cases under ITPA	Trafficking Cases u/s 363/366/ 366A/ 372 IPC	Total Missing Women Cases	Hindu Missing Women	Muslim Missing Women	ST Missing Women
Chopra	20	10	6	-	36	-	2	10	4	6	-
Islampur	-	1	2	-	3	2	14	23	11	10	2
Goalpokhar-1	16	2	2	-	20	-	7	3	2	1	-
Goalpokhar-2	12	1	-	-	13	-	3	15	4	9	2
Karandighi	-	1	-	-	1	1	5	14	3	8	3
Raiganj	-	3	7	-	10	1	4	11	8	2	1
Hemtabad	-	3	1	-	4	-	6	3	2	1	-
Kaliaganj	-	1	-	-	1	-	2	34	26	3	5
Itahar	-	3	1	-	4	1	8	1	1	-	-
<b>Uttar Dinajpur DT</b>	<b>48</b>	<b>25</b>	<b>19</b>	<b>-</b>	<b>92</b>	<b>5</b>	<b>51</b>	<b>114</b>	<b>61</b>	<b>40</b>	<b>13</b>

Source: District Crime Records Bureau, Police Department, Uttar Dinajpur

As indicated by the regional maps, the densest concentration of case registrations for crimes against women involving trafficking offences was in Islampur block in the northern region, followed by Itahar at the southern end. In between these two extremities, the incidence of trafficking-related crimes was fairly evenly distributed across Goalpokhar-1, Karandighi, Raiganj and Hemtabad, but was lower in Chopra and Goalpokhar-2. Kaliaganj was thus the only part of Uttar Dinajpur that remained virtually free of trafficking and related crimes. ITPA cases involving the immoral trafficking of women were localised in areas connected by highway, once again with densest concentration at Islampur. These would include highway staging points in the vicinity of Itahar, Raiganj, Dalkola and Islampur along the NH34 and NH31 connectors, where truck operators make regular night-time stopovers. While areas off the main highway like Hemtabad and Kaliaganj see no incidence of ITPA offences, the incidence between Karandighi and Islampur probably shifts to adjacent Kishanganj in Bihar, since Goalpokhar-1 & 2 are off the principal highway, which for a time weaves its northwards alternating between Bihar and West Bengal territories. However, although the location of ITPA offences appears to be highway-specific, the incidence of IPC offences related to abduction and trafficking spreads out more widely into adjoining rural areas. Thus all Uttar Dinajpur blocks, with the exception of Kaliaganj, report frequent cases of abduction involving women, with the incidences being particularly high in Islampur, Goalpokhar-1, Itahar and Hemtabad.

MAP: Trafficking & Disappearance of Women in Uttar Dinajpur, 2005-2007



As previously mentioned, most cases related to abduction and trafficking of women start off with the registration of a missing person diary at the local thana. The occurrence of trafficking can only be established after the victims have been rescued or have returned from the clutches of their captors. Many victims who never manage to escape remain on the list of missing women. Thus the regional incidence of reports relating to missing women offer further clues to the possible magnitude of trafficking crimes in Uttar Dinajpur. The densest concentration of such reports is once again in Islampur. In Goalpokhar-2 and Karandighi, case incidences of missing women are also relatively, followed by other adjoining block area like Chopra and Raiganj. Conversely, in Goalpokhar-1, Hemtabad and Itahar, the incidences are low, and are once again entirely absent in Kaliaganj. Through Chopra, Goalpokhar-2 and Karandighi, instances where Muslim women go missing exceed instances involving women from other communities. While the instances of missing Hindu women are also high in these blocks as well as in Raiganj, cases where ST women have gone missing are localised within the Karandighi-Goalpokhar-2-Islampur area.

Although the maps reflect the case registration trends between 2003-2005 and the actual incidence of trafficking offences and missing women cases may be underreported, the scale and seriousness of the situation confronting Uttar Dinajpur district today is immediately apparent. Since the district also forms a convenient transit corridor for trafficking chains that originate from Nepal, Bangladesh and the Indian Northeast, not all women trafficked through Uttar Dinajpur necessarily belong to the district. Media reports suggest that after they have traversed through the district, the trafficking agents link up with their counterparts in Bihar, from whence the stream of hapless women victims are dispersed across the country.

### BOX - TEXT

#### FOCUS GROUP DISCUSSION ON TRAFFICKING OF WOMEN & CHILDREN: RAIGANJ/AUGUST, 2005

During a focus-group discussion with activists and women's stakeholder groups on trafficking issues in Uttar Dinajpur, organised in August 2005 during the survey by the Centre for Women's Studies, North Bengal University, several details emerged relating to the gender insecurities that currently confront women in the district.

Representing Gunaprabha Swarnajayanti Mahila Dal - an SGSY-SHG group in Mohitpur Anchal in Raigani, *Basanti Pal* from Lakhunia village reported frequent trafficking of rural girls from her area to far-off places like Delhi etc. for work, through the intermediation of outside labour agents and local touts. Taking advantage of the difficulties faced by rural families in marrying off higher-aged daughters, these persons promise a rewarding alternative to the males of the families. Concurrence from the girls is never obtained. Women victims of dowry disputes are sometimes placed under similar pressure, in one case even being forced into prostitution because of their inability to meet dowry demands.

*Mithu Chakraborty* and *Maya Das*, representing DURBA, spoke about the insidious nexus between Siliguri and the Panjipara-Islampur area in Uttar Dinajpur in the trafficking of rural girls from the district into urban brothels. Working closely with trafficking victims in these redlight areas, DURBA regularly monitors the arrivals of new girls, seeking to ascertain their age and their willingness or unwillingness to enter commercial sex work [CSW]. Although collective efforts are made by local DURBA committees to liberate underage victims, many difficulties arise in returning the liberated victims to their villages. A primary reason for continuity within CSW is ostracism faced by the victims in rural society even after they have been rescued. Many girls who were initially unwilling victims return willingly after being rejected by their families.

*Tultuli Murmu*, of an all-Adivasi SGSY-SHG group at Pandeypur in Karandighi, spoke of the adverse impact of early marriage on Adivasi girls, leading to poor literacy, limited skills and poverty, and high fertility. Commercial home-brewing activity, which is common within the community, leads to the rapid breakdown of social and family life. Meanwhile, dowry practices are also increasingly influencing educated Adivasi youths, through a process of peer imitation. Child traffickers in the district frequently target Muslim and Adivasi children, the most recent instance of which had occurred at the village of Altapur. Accusations of witchery are frequently directed at old Adivasi women as a means for curbing their constructive participation in social and family affairs.

*Bisnupada Aich*, from an NGO group working on family and legal issues in the Sahapur area, mentioned the frequent recurrence of girl-trafficking incidents in Bindol GP bordering Bangladesh. Dowry practices are rapidly entering communities which had previously been immune to the practice. Even among the Rajbanshi groups, where marriage by free choice had been previously widespread, a 16 year-old girl who had been married through a love-match was subsequently pressured to arrange for a dowry payment. A common complaint from rural victims and their families is that dowry cases and rural complainants do not receive a fair hearing at the thanas. Consequently, many crimes against rural women in Uttar Dinajpur are never redressed. Poor legal awareness among rural complainants and their ignorance about police matters often result in General Diary entries being made instead of FIRs, even in the case of cognisable offences. Habitual offenders who indulge in crimes against women thus often escape with impunity, under such circumstances.

*Karnabala Das*, member of an SGSY-SHG group from Khetrabari, under Karandighi-2 GP, spoke about the urgent need for combating dowry as a social challenge. Muslim girls in Uttar Dinajpur are generally married off by the age of 8 to 10 years. Any girl who crosses that age without marriage is perceived as a liability even by her own family. Citing a recent case of abandonment of a 2-year old rural child in the municipal area of Dalkola, she stated that extreme pressure and extreme gender insecurity sometimes force women to take unimaginable decisions of this kind. Women SHGs have a huge potential role in fighting such social practices that victimise rural women, and must therefore rise to the occasion. Adding her views, *Beauty Sarkar* - an SHG member from Chakulia, observed that dowry has traditionally played a role in providing future social security to women. Any effort to stamp out the practice can only be successful if the same level of security is provided to women through other means. Economic empowerment of Women through SHGs would be an important step towards this.

*Narayan Mazumdar*, of St John's Ambulance, mentioned a survey being conducted by his organisation on the incidence of rural migration and trafficking in the Karandighi, Raiganj and Kaliaganj areas of Uttar Dinajpur. The two phenomena, he said, were closely interrelated. Concurring with his views, members of the Karnajora SGSY-SHG group located just outside Raiganj pointed to the common agency of rural male migration to distant cities. Many such males, when they return periodically, act as contacts and agents for new migration and trafficking.

Concluding the discussion, *Smt. Jyotsna Rani Singha*, then Sabhadhipati, Uttar Dinajpur Zilla Parishad, stressed the need for continuous vigilance by women's groups to improve their own security. On the evidence of recent cases in Matikunda-3 GP, a new avenue for migration of rural women from the district had been created by the increasing activity of marriage agents. Many of these incidents were just a cover for trafficking operations. The impact of increasing rural exposure to popular media in increasing the incidence of crimes against women in Uttar Dinajpur needed to be closely monitored. The Panchayats in the district could play an important role in this.





## Chapter 6

### MIGRATION AND RESETTLEMENT IN UTTAR DINAJPUR

#### Migration Inflows in Uttar Dinajpur

Till the partition of the country in 1947 under the Radcliffe award, most of present-day Uttar Dinajpur was part of the larger district of Dinajpur in undivided Bengal, while the northern blocks covered by Islampur SD were transferred from Bihar to West Bengal in 1956. The mixed ethno linguistic and cultural character of Uttar Dinajpur has been strongly influenced by these antecedents, and migration and resettlement within Uttar Dinajpur has accompanied these territorial changes. Pre-Partition Dinajpur had a substantial Muslim, Rajbanshi and tribal component within its population, besides Hindu upper-castes and the artisanal SC castes. In the initial years following Partition, massive realignment of population took place within the erstwhile Dinajpur district, with Hindus and Muslims crossing to opposite sides of the newly drawn border in large numbers. However, while emigration of Muslims into East Pakistan stopped within a few years, Hindu and tribal immigrants have continued to emigrate into India till the present day. This is the main population inflow that has contributed to the persistently high population growth in Uttar Dinajpur district.

However, besides, migration sourced across international borders, Uttar Dinajpur has also received a large stream of interstate migrants in the post-Independence period, particularly from the adjoining parts of Bihar. Migration of this kind has been primarily received in Islampur SD which, till 1956, had formed part of Kishanganj sub-division in erstwhile Purnea district in Bihar. Because of these territorial antecedents, the Islampur region still shares several linguistic, cultural and ethno religious characteristics as well as kinship bonds with the adjoining Bihar areas. Seasonal migration of labour between adjoining regions occurs regularly, besides which nuptial relations between communities settled on both sides of the Bihar-West Bengal border are another source for continuing interstate migration. The second largest group of migrants settled within Uttar Dinajpur originates from Bihar.

Rapid population growth and rapid urbanisation have also contributed to migration and resettlement in Uttar Dinajpur. Most major settlements in the northern part of the district, such as Islampur and Dalkola municipalities, lie along the highway that traverses the Bihar-West Bengal border, thus drawing in substantial population inflows from either side. Relative population density in Uttar Dinajpur is still sparse compared to adjacent West Bengal districts where population density is excessively high and agricultural land is scarce. Thus the possibility of securing larger holdings of farmland in Uttar Dinajpur under tenancy or outright purchase has encouraged many marginal landholders from the Malda diara, who live under the constant threat of erosion by the Ganga, to dispose of their land assets there and migrate northwards into Uttar Dinajpur where land is cheaper and more abundant. Migration from adjoining Malda is thus the third major population inflow that has been received by Uttar Dinajpur. Forming an addition to this, there has also been long-term population resettlement from Dakshin Dinajpur into Uttar Dinajpur, which, till 1992, were both parts of the undivided district of West Dinajpur. Surrounded on three sides by Bangladesh, Dakshin Dinajpur has been a major entry point for international migration, following which many migrants who had initially settled in Dakshin Dinajpur have relocated to Uttar Dinajpur.

The proximity of Uttar Dinajpur to Bihar and Bangladesh, the relatively easy access to fertile irrigated land, the fast growth of agriculture, trade and commerce in the district, as well as the relatively developed state of communications and transportation infrastructure have thus been contributing factors that have drawn in longterm inflows of migrants from various cultural communities and economic classes into Uttar Dinajpur.

More recent political and economic events such as ethnic conflicts in the Northeast states, proliferation of small tea gardens in the Chopra and Islampur areas, and population displacement resulting from the regular recurrence of floods and river erosion in neighbouring Malda district have also contributed to the continuing inflow of migrants into Uttar Dinajpur.

Human migration and resettlement on this scale have had both positive and adverse implications for the state of human development within Uttar Dinajpur. Continuous inflows of migrants from diverse regions have added to material and human resources in the district and to the cultural richness of the population. Growing density of the district population has contributed to the intensification of market growth and commercial opportunities, encouraging growing occupational diversification. New settlers from densely populated agricultural areas in Malda and Bangladesh have come equipped in the art of managing land and productive assets more efficiently, triggering agricultural and economic growth in the places where they have resettled. On the other hand, with high sustained growth of population in the district, human pressure on land and physical infrastructure, on educational, healthcare and housing facilities, and on employment and livelihood opportunities has multiplied manifold. With expansion of human habitation and the growth of urban settlements, the availability of arable land in the district has declined sharply, while the size of the landless population has risen. Meanwhile, indigenous population groups and other marginalised social sections have lost land to more enterprising immigrant sections, thus aggravating the possibility of agrarian and socio-ethnic tensions.

### Migration and Long-term Population Growth

The population of Uttar Dinajpur district has risen more than five-fold from 4.76 lakh to 24.42 lakh over the 100-year period between 1901-2001. However, in sharp contrast to the district's post-Independence experience, the district population till 1941 had grown at a markedly sluggish rate. During the 1911-1921 decade, which was affected by the rise in mortality during the global influenza epidemic, the population of the district had in fact declined substantially and took another two decades to recover to its prior level. Thus a spurt in population growth rates first became evident between 1951-1961, and was further magnified between 1971-81 after the creation of Bangladesh when population growth in most districts bordering the Bangladesh-West Bengal frontier showed similar escalation. However after 1981, when population growth in most other West Bengal districts had tapered off, growth rates in Uttar Dinajpur again showed a fresh spurt. Thus no deceleration in population growth rates occurred in the district until after 1991.

**Table: Longterm Demographic Growth in Uttar Dinajpur, 1901-2001**

Police Station	Census 1901	Census 1911	Census 1921	Census 1931	Census 1941	Census 1951	Census 1961	Census 1971	Census 1981	Census 1991	Census 2001
Chopra	58730	58147	42298	45750	51813	52858	68868	101570	128699	165720	223022
Islampur	63684	63092	45866	49610	56184	57317	87942	133949	171780	230326	294689
Goalpokhar	109964	108872	79196	85661	97012	98969	147025	213863	285266	362467	471902
Karandighi	52405	51884	37742	40823	46233	47165	75196	122232	169171	230121	318881
Raiganj	59218	61044	59454	59034	65553	101870	150072	208274	271532	428203	527268
Hemtabad	26654	27476	26761	27440	28747	34680	46769	62000	77881	95157	118822
Kaliaganj	54340	60130	58890	60914	61425	67366	93911	122407	153769	187935	237669
Itahar	50996	56430	55267	58306	73231	80953	104709	142855	181977	226800	249541
<b>Uttar Dinajpur DT</b>	<b>475991</b>	<b>487075</b>	<b>405474</b>	<b>427538</b>	<b>480198</b>	<b>541178</b>	<b>774492</b>	<b>1107150</b>	<b>1440075</b>	<b>1926729</b>	<b>2441794</b>

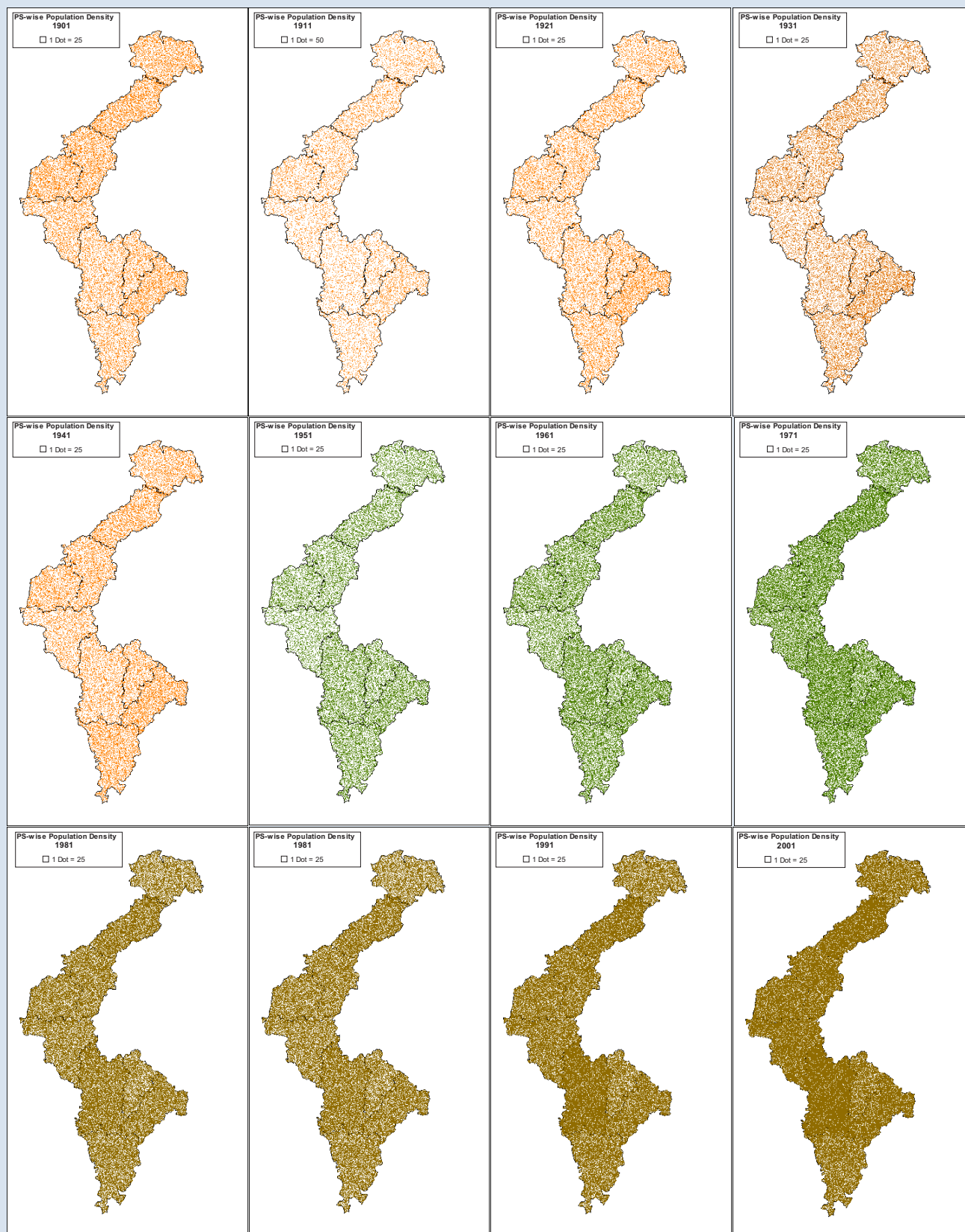
**Table: Longterm Demographic Growth in Uttar Dinajpur, 1901-2001***Contd.*

Police Station	Census 1901	Census 1911	Census 1921	Census 1931	Census 1941	Census 1951	Census 1961	Census 1971	Census 1981	Census 1991	Census 2001
DECENNIAL GROWTH [%]		1901-11	1911-21	1921-31	1931-41	1941-51	1951-61	1961-71	1971-81	1981-91	1991-2001
Chopra		-0.99	-27.26	8.16	13.25	2.02	30.29	47.49	26.71	28.77	34.58
Islampur		-0.93	-27.30	8.16	13.25	2.02	53.43	52.32	28.24	34.08	27.94
Goalpokhar		-0.99	-27.26	8.16	13.25	2.02	48.56	45.46	33.39	27.06	30.19
Karandighi		-0.99	-27.26	8.16	13.25	2.02	59.43	62.55	38.40	36.03	38.57
Raiganj		3.08	-2.60	-0.71	11.04	55.40	47.32	38.78	30.37	57.70	23.14
Hemtabad		3.08	-2.60	2.54	4.76	20.64	34.86	32.57	25.61	22.18	24.87
Kaliaganj		10.66	-2.06	3.44	0.84	9.67	39.4	30.34	25.62	22.22	26.46
Itahar		10.66	-2.06	5.50	25.60	10.54	29.35	36.43	27.39	24.63	10.03
<b>Uttar Dinajpur DT</b>		<b>2.33</b>	<b>-16.75</b>	<b>5.44</b>	<b>12.32</b>	<b>12.7</b>	<b>43.11</b>	<b>42.95</b>	<b>30.07</b>	<b>33.79</b>	<b>26.73</b>
PERSONS/SQ.KM	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001
Chopra	154	153	111	120	136	139	181	267	338	435	586
Islampur	185	184	134	144	164	167	256	390	500	671	858
Goalpokhar	168	167	121	131	148	151	225	327	436	554	722
Karandighi	133	132	96	104	118	120	192	311	431	586	812
Raiganj	121	125	122	121	134	208	307	426	556	876	1079
Hemtabad	139	143	140	143	150	181	244	323	406	496	619
Kaliaganj	173	192	188	194	196	215	299	390	490	599	758
Itahar	141	156	153	161	202	223	289	394	502	626	689
<b>Uttar Dinajpur DT</b>	<b>152</b>	<b>155</b>	<b>129</b>	<b>136</b>	<b>153</b>	<b>172</b>	<b>247</b>	<b>353</b>	<b>459</b>	<b>614</b>	<b>778</b>

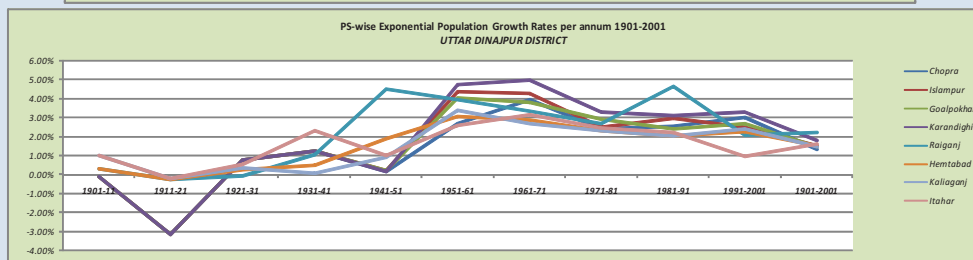
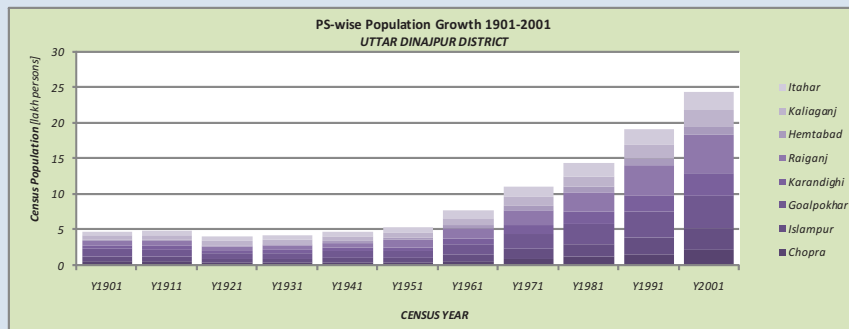
Source: Census of India, various years

While a certain proportion of the population increase that occurred after 1951 in Uttar Dinajpur may be attributed to the general decline in mortality across the country as a result of improved healthcare access, the coincidence of growth periods with transborder political events provides strong evidence that the influence of migration on the growth of the district population has undoubtedly been strong. Although a large section of these new migrants have resettled in rural areas, their influence on urban growth in the district has also been prominent. The urban population in Uttar Dinajpur therefore rose five-fold in the space of one decade between 1941-1951 and grew by approximately 136 percent between 1951-61. Once again, between 1981-91, when Raiganj had emerged on the map as one of the fastest growing urban clusters in India, urban population in Uttar Dinajpur almost doubled. As evident in the table, the sharpest increases in population since 1951 have occurred in the border thanas under Islampur SD, with Karandighi, Chopra and Goalpokhar still recording decennial growth rates exceeding 30 percent between 1991-2001.

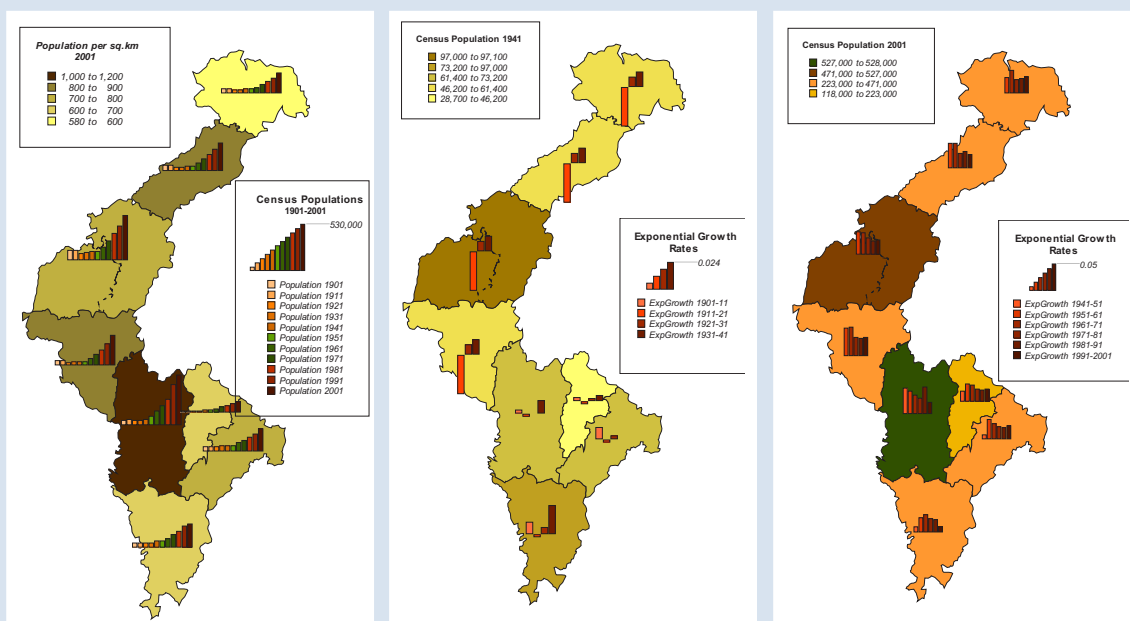
MAP: Changing Population Density in Uttar Dinajpur, 1901-2001



Given the predominantly rural complexion of the district, the primary impact of population growth has been felt in the declining land-man ratio and rising population density, once again with the order of change having noticeably sharpened in the post-Independence period. Till 1951, the change had been minimal and population density in the district averaged 172 persons per sq.km. It has increased by over 4.5 times over the period since, to reach 778 persons per sq.km in 2001, with Islampur, Karandighi and Raiganj recording particularly high densities in excess of 800 persons per sq.km, which have also contributed to growing urbanisation in these PS areas. However, as the exponential growth rates of the PS populations show, settlement pressure has tended to oscillate between different thanas in different periods, with the Islampur SD thanas showing maximum population increases between 1941-1981. After 1981, exponential population growth rates have tended to converge in most PS areas of Uttar Dinajpur with the exception of Raiganj, where rapid urban growth caused another sharp upsurge in population growth between 1971-1991.



**MAP: Regional Patterns of Population Growth in Uttar Dinajpur, 1901-2001**



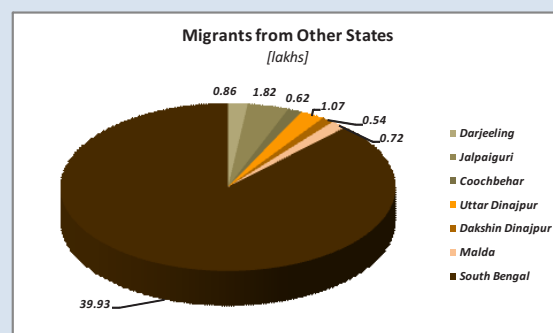
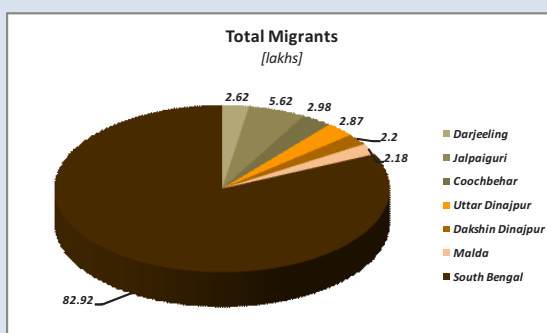
From the analysis of population growth rates over the post-Partition period, it thus becomes evident that the thana areas around Raiganj have consistently been the first choice destination of the migrants, followed by those around Islampur, Karandighi and Goalpokhar. Between 1941-1951, in the years just subsequent to Partition, migrant refugees from East Pakistan mostly settled around the new subdivisional town of Raiganj, which till then was the only urban area in West Dinajpur district besides Balurghat. The inflows of refugee migrants accelerated immediately after the 1954 riots in East Pakistan, and then reached a point of stability until a new upsurge occurred coinciding with events leading up to the eventual liberation of Bangladesh in 1971. Sustained population movements since that period have continued to bring in new settlers to Raiganj as well as to the thanas under Islampur SD, accounting for sharp increases in the district population after 1971.

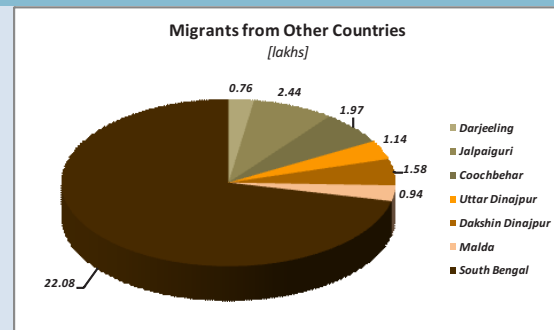
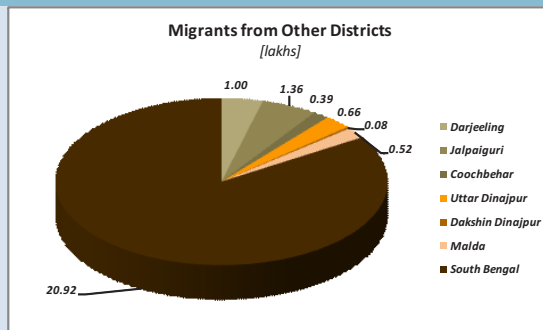
In addition to Hindu and tribal migrants from across the international border, a sizeable number of migrant Muslims have also settled in the district, mainly driven by economic reasons. While the issue of Muslim migration into Uttar Dinajpur is contentious and requires deeper probing, their recent migration into the district appears to be part of the seasonal labour movements that occur because of excessive demographic pressure, poverty and the search for alternative livelihoods. Thus most recent migrants into the district - whether Hindu or Muslim - could be viewed as 'economic refugees' who are not necessarily interested in resettling permanently within Uttar Dinajpur.

## Regional Patterns of Resettlement

The overall post-Partition impact on the rates of demographic growth has been particularly strong in all North Bengal districts. Despite its smaller relative size, the region has received more migration in pro rata terms than the West Bengal districts lying south of the Ganga. Thus in 2001, the total migrant population of 18.5 lakh persons in the six districts of the region constituted close to a fifth of the total migrant population of 1.01 crore residing within West Bengal as a whole. Uttar Dinajpur at the time held 2.8 percent of the migrant population of the state, and over 15 percent of the total migrants residing in the North Bengal region. In-migration into the district was principally from three sources. Migrants born in other countries constituted the largest segment, comprising 1.14 lakh (39.6%) of the total migrant population residing in Uttar Dinajpur. They were followed by internal migrants from other districts in West Bengal who comprised 1.07 lakh (37.4%) of the total migrant population, and migrants from other states who comprised 0.66 lakh (23%) of the total migrants residing in Uttar Dinajpur. With a cumulative regional population of 1.47 crore and a migrant population of 18.5 lakh, the six North Bengal districts characteristically accounted for a much larger cumulative proportion of total migrants from other countries to West Bengal. Thus with 18.4 percent of the state population, they accounted for nearly 29 percent of the migrants from other countries. Uttar Dinajpur, which has received significant inward migration from all three sources, accounted for 3.05 percent of the state population and for 3.68 percent of the total migrants received by West Bengal from other countries.

## Migrant Share of North Bengal Districts & South Bengal





## BOX - TEXT

### PARTITION MIGRANTS IN WEST BENGAL

Unlike India's western borders, where the two-way transfers of population triggered by Partition involving more than 1.5 crore people began almost immediately in the midst of tragic violence and had largely been completed by 1949, the population migration induced by the division of Bengal has been slow, protracted and overwhelmingly unidirectional. Prior to Independence, well over two-fifths of the Hindu population of undivided Bengal had lived in its eastern half, engaged in all walks of life stretching from minor agriculture and artisanship into the higher professions. Since the exchange of population had not been an integral part of the Partition Plan earlier announced by Mountbatten on 3 June 1947, most sections from the Hindu community in East Bengal had expected to live on undisturbed at their ancestral homes, until the Boundary Commission award demarcating the eastern boundaries of the new state of West Bengal was declared by Radcliffe on August 16.

The initial wave of post-Partition migration in 1947 in which 2.58 lakh persons crossed over into West Bengal, brought in many from the landed and professional classes and other relatively well-off urban sections who migrated towards Kolkata where they felt their economic future would be more assured. With tension mounting around the Kashmir issue, the movement escalated in 1948, with 5.90 lakh arrivals in West Bengal. The task of providing relief to Partition migrants in both western and eastern regions had been undertaken directly by the Government of India through the Ministry of Relief & Rehabilitation (renamed the Ministry of Rehabilitation in 1949). The process involved the registration of migrants at border transit camps, followed by their reassignment to specially established relief camps. However, while around 10 percent of the initial arrivals are estimated to have registered at the transit camps in West Bengal, the vast majority relied on their own kith and kin and their own resources while resettling in the state. Following serious rioting in rural Khulna in 1949 which quickly spread into Rajshahi, Barisal and Faridpur by early 1950, the annual number of arrivals swelled from 1.82 lakh in 1948 to 11.82 lakh in 1950. Among those who came in this second wave, many belonged to the agricultural sections and were expected to return to their original homes and lands once the situation had improved.

Thus in contrast to the refugees evacuated from West Punjab who were offered a comprehensive rehabilitation package after their arrival in India, the people displaced from East Bengal in the wake of Partition were offered rudimentary relief at temporary camps, with no initial commitment being made towards their rehabilitation needs. The intent was clearly to provide them short-term accommodation till repatriation became possible, and the definition of 'refugee' was restrictively applied, including only those who had arrived and registered as bonafide refugees before January 1949. The Government also declared that the camps were to shut down by the end of 1949, and on 6 April 1950, the Nehru-Liaquat pact between the Prime Ministers of India and Pakistan sought to allay the fears of the respective minorities and create conditions that would facilitate their return

Meanwhile, to disperse the new arrivals who had tended till then to crowd into Kolkata, new camps had been set up at widely dispersed rural locations across the state, with one each being located in the districts of West Dinajpur and Coochbehar in North Bengal. The new wave of migration from agricultural sections was therefore redirected increasingly to these dispersed rural camps. While the Nehru-Liaquat pact was able to create safe conditions for the return migration of the Muslims who had fled from West Bengal in the wake of widespread communal tension following the Khulna riots, there was little reciprocal migration of Hindus back into East Pakistan because of continuing threat perceptions.

By the end of 1951, the flood of Partition migrants into West Bengal was estimated to have reached 23.66 lakh. Around four-fifths of them had resettled in the South Bengal districts - particularly in Kolkata, Nadia and 24-Parganas, while West Dinajpur, Jalpaiguri and Coochbehar districts had accommodated the rest. West Dinajpur alone accounted for around 6.5 percent of the total Partition migrants received by West Bengal upto 1951. The patterns of refugee resettlement in Uttar Dinajpur have thus closely followed the changing economic complexion of the migrants. The more educated and financially secure sections who arrived during the first migration wave had preferred to move into urban settlements like Raiganj and Kaliaganj, while the later arrivals from the agricultural sections preferred to move to camps and settlements in rural areas, where there would be more opportunity to return to their traditional livelihoods.

Instead of being shut down in 1949 as first intended, the relief camps in West Bengal soon swelled with continuous arrivals of new migrants fleeing from recurrent disturbances in East Pakistan. Most of these new arrivals had abandoned everything during their flight, and arrived destitute and without private channels of economic support. In 1952, when the passport system that had been introduced between India and West Pakistan in 1948 was extended to East Pakistan to restrict the admissions of persons who might choose to stay on in West Bengal, another spate of migration ensued among those sections who were afraid that the door might close on their entry. Fresh disturbances in East Pakistan connected with the language agitation in 1955 and the adoption of an Islamic constitution in Pakistan in 1956 further traumatised the minorities, leading to cumulative arrivals of 4.30 lakh migrants over these two years. From 1956, the additional compulsion of having to procure valid migration certificates at the border transit point before being allowed entry into West Bengal slowed down legal arrivals of East Bengal migrants to a trickle, and annual arrivals till 1961 ebbed to under 10 thousand each year. In the interim, the Government also announced that all relief work at the transit camps would end from 21 March 1958 and no migrants would be eligible to be registered for Government relief after that date. Till 1961, West Bengal was estimated to have received 30.69 lakh migrants from East Pakistan, of whom 24 percent had resettled in the North Bengal districts. Around 1.72 lakh migrants had resettled till that time in West Dinajpur. Through the 1960s, new arrivals were generally low, except in 1964-65 when snowballing disturbances connected with the Hazratbal incident caused another 8.01 lakh migrants to flee East Pakistan, of whom around 5.00 lakh were absorbed in West Bengal.

The State Government had by then already declared that no new migrants would be provided relief within the overburdened state, and therefore invoked assistance from the Government of India in dispersing the new arrivals to other provinces. After an intervening lull, another wave of migration brought in 2.50 lakh new arrivals in 1970, during the political tensions arising from the free Pakistan elections that inexorably swept Sheikh Mujibur Rahman to power and Bangladesh to its bloody battle for independence. In the liberation struggle following the declaration of independence by Bangladesh on 25 March 1971, around 1 crore Bengali-speaking refugees from both Hindu and Muslim communities were estimated to have taken shelter at relief camps on the West Bengal side of the border. They returned after December that year to a new country that had optimistically promised to distance itself from the legacy of Partition.



Although all post-Partition migrants in West Bengal were generally referred to in colloquial terms as East Bengal refugees, official and legal orders issued at the time preferred to describe them as East Pakistan Displaced Persons [EPDPs]. This technical terminology which applied to all persons who had ordinarily been resident in the territories that were included in East Pakistan, and had migrated because of Partition, or because of the occurrence of subsequent civil disturbances or the fear of their occurrence (Ministry of Rehabilitation, 1957), was different from the definition of 'displaced persons' used in reference to the West Pakistan refugees. Registered migrants arriving between October 1946 and 31 March 1958 were termed old migrants, whose resettlement and rehabilitation was governed by the terms of the West Bengal Rehabilitation of Displaced Persons & Eviction of Persons in Unauthorised Occupation of Land Act, 1951 (West Bengal Act XVI of 1951). The designation thus applied to the 41.17 lakh DPs who had arrived between those dates, among whom 31.32 lakh resettled in West Bengal. Later entrants who had arrived between 1 January 1964 and 25 March 1971 were designated as new migrants, and were not provided rehabilitation assistance unless they were willing to be resettled outside West Bengal. This new definition covered approximately 11.14 lakh persons who arrived between 1964 and 25.3.1971.

Refugee families who had migrated to Uttar Dinajpur soon after Partition in 1947 had initially preferred to resettle in the urban areas of the district. Around major urban centres like Raiganj and Kaliaganj, the refugee settlers occupied vacant public lands or lands that had been left untended by emigrating Muslims and thus established several refugee colonies. However, more well-off sections among the migrants generally preferred to purchase land which was relatively cheap and abundantly available at the time, for construction of their own houses. Among the later migrants who have arrived in Uttar Dinajpur from East Bengal over the last two decades, the more visible tendency has been to resettle in rural areas. Migrant families who have brought in some capital have generally chosen roadside settlements or rural markets, where they can combine agriculture and small enterprise as sources for their livelihood. Poorer migrant sections who came in without much education or material resources generally work as agricultural labourers, sharecroppers or marginal farmers. These resettlement preferences have also significantly influenced the rural settlement structure of the district. Most roadside and market settlements are thus occupied chiefly by refugee migrants, indigenous rural sections comprising the ST communities, the Rajbanshis and the Muslims reside in their traditional villages which are usually located in the interior, at some distance from roads and markets.

Studies on refugee communities conducted by the Department of Sociology at North Bengal University have documented the circumstances, times and modes of their migration and resettlement in various districts of North Bengal including Uttar Dinajpur. Pertinent findings from some of these studies are summarised below.

- (i) Most refugee families who have migrated into the district during non-conflict periods have preferred step migration. The migrating family has thus initially sent an adult male belonging to the family to a pre-selected area where it has prior social or kinship connections. With support from these local networks, the initial migrant has established an earning avenue for himself either in agriculture or some form of petty trade, purchased some homestead land and constructed a house, while preparing the ground for migration of other family members. Finally, the family disposes of whatever immovable property it holds at its original place of settlement, before migrating as a group.

- (ii) Refugee families have often had to try out several transitory settlements before finally locating a place that is conducive for permanent resettlement, suggesting that they initially pass through a period of insecurity as well as uncertainty before finding stable occupations and sources of livelihood.
- (iii) Immigrants from East Pakistan/Bangladesh have arrived in Uttar Dinajpur almost equal numbers before and after 1971. Migrants who had entered after 25 March 1971, and are 'illegal' migrants under terms defined by the 1974 Land Boundary agreement (otherwise known as the Indira-Mujib accord), have not claimed refugee status and sought assistance from government sponsored rehabilitation packages. Instead, they have sought to rehabilitate themselves on their own. Many among them have, because of innate resilience and adaptation, subsequently moved to a respectable niche within the socioeconomic, cultural and political order of their new place of residence, after surmounting the initial years of struggle.
- (iv) However, because of their illegal status, migrants who resettled in Uttar Dinajpur after 25 March 1971 have also faced greater hardships in fitting themselves into their new places of resettlement. Education and certificates acquired before they left Bangladesh hold little value when seeking employment in India. Hence this effectively limits the formal employment opportunities available to these migrants, forcing them to seek other livelihood alternatives in the agricultural sector or in the petty trade.
- (v) Most refugee families had arrived in Uttar Dinajpur with limited education and material resources. Many among them however possessed superior skills in cultivation and traditional caste-based artisanal crafts and trades, which they have deployed effectively in securing economic rehabilitation. Because of their limited access to formal employment, they have also depended disproportionately on informal occupations like rickshaw pulling, beedi binding or petty trade and vending activities. Thus during their process of economic adaptation, the refugee migrants have also contributed to occupational diversification and agricultural and economic development in the district.
- (vi) Exercising increasing leverage over the accommodative social and political environment in their new home district, migrant communities have consistently outscored the older district residents in all spheres of economic, social and political achievement. The consequential alienation of lands formerly held by these older residents and the growing control over social and political power structures exercised by the initial migrants and by their children born in India have been integral to this process. Children from migrant families have also outdone their local peers in terms of educational achievement, and have therefore benefited considerably from increased occupational mobility.
- (vii) Old village, caste and kinship networks have played a significant role in aiding refugee resettlement. Before migrating, the refugee families gather as much information as possible about their probable destinations through communication with these networks, and also secure psychological and social support by resettling close to them after migration. Fellow villagers and kinsfolk who had migrated successfully earlier are also able to protect new arrivals from harassment by the authorities and from the threat of deportation. Network support also assists them to be naturalised as Indian citizens in due course of time.

**BOX - TEXT****RESETTLEMENT AND REHABILITATION IN UTTAR DINAJPUR**

The flow of refugee migrants into West Bengal continued into the 1950s. The impossibility of their safe repatriation within the climate of communal fear and distress created in the aftermath of Partition had eventually persuaded the Government of India to take on the responsibility of rehabilitating the East Pakistan DPs. However, the limited quantum of Government support made available and the restrictive terms of eligibility discouraged all but the most needy refugee migrants from registering at the relief camps. While the initial migrants had the financial means to re-establish themselves or had the support of extended family networks, subsequent migrants who had access to neither were able to draw support and solidarity from social networks set up by the refugees who had arrived in the first wave. Forged from the common ties of belonging to the same district or the same village or speaking the same dialect, these solidarity networks initially evolved from transplantation of the rural support systems that had served village communities within East Bengal. However in their new context, they gradually acquired a more political voice and were formalised into various refugee movements and councils, which allowed the community leaders to establish negotiating positions with the Government. In a sense therefore, the growing strength of these solidarity structures paved the way for the succeeding waves of refugee migration.

Meanwhile, in order to disperse new arrivals across the state instead of further crowding the vicinity of Kolkata, 389 Government sponsored [GS] refugee colonies were established on lands that had been hurriedly taken over for public purposes in the districts, through special purpose legislations like the West Bengal Land (Requisition and Acquisition) Act 1948 and the West Bengal Land Development & Planning Act 1948. The 46 GS colonies thus established in the North Bengal districts accommodated a total migrant population of 0.25 lakh in addition to 2148 others still lodged at the West Dinajpur and Coochbehar transit & relief camps (Department of Refugee Relief & Rehabilitation, 1958). In comparison, the number of migrants fending for themselves outside the GS colonies and camps drawing support from their solidarity networks was much larger at 6.18 lakh. At Kolkata from 1948 onwards, the civil situation had turned grim as the growing influx of Partition migrants and their need for living space had forced them to occupy unused public and private lands, on which innumerable jabar dakhil squatter colonies had already sprung up. After arming itself with additional statutory powers of eviction under the West Bengal Act XVI of 1951, the State Government had to back down in the face of the sustained movement spearheaded by the refugee councils, and concede that no evictions would take place without alternative resettlement provisions being made for the evictees. Finally, beginning in 1958, the existing squatter colonies were gradually regularised as a quid pro quo for the new migration policy that required future migrants to forego any claim to rehabilitation support unless they were willing to be resettled outside West Bengal.

The transfer of territories from Bihar to West Bengal in 1956 had increased the extent of unused lands available for refugee resettlement in West Dinajpur. As a result, as many as 9 GS colonies were established at various locations in Islampur SD that now fall under Islampur, Ramganj-1, Ramganj-2, Gaisal-1 and Matikunda-1 GPs. Two other GS colonies were established in the area that has come under Dakshin Dinajpur district. In addition to 989 inmates living at the West Dinajpur transit & relief camp in 1958, another 3865 Partition migrants were resettled in the 11 West Dinajpur GS colonies. However, a much larger number of 1.58 lakh refugees had resettled in West Dinajpur, utilising personal or social networks as their principal means of rehabilitation support. The proportion of Partition migrants drawing direct

Government relief was thus very low at under 4 percent in West Dinajpur and under 5 percent in the other North Bengal districts, compared to 18 percent for South Bengal. In 2008, 2121 registered refugee families were still residing in the Uttar Dinajpur GS colonies, indicating that settlement density at these authorised rural colonies had multiplied manifold after 1958.

Although no GS colonies were established in Raiganj SD where the majority of Partition migrants had preferred to squat on unused lands on the outskirts of Raiganj rather than moving into rural areas, most early settlers at these squatter colonies had migrated over relatively short distances from the parts of Dinajpur district that had gone to East Pakistan. Later migrants who came from more distant East Bengal districts either moved into these existing colonies or set up new ones of their own. In the 'old migration' period between 1947-58, 9 such squatter colonies came to be established on vested and unused private lands in and around the township of Raiganj, at places like Shilpinagar, Shaktinagar, etc. Another 2 squatter colonies were established during the same period in the vicinity of Kaliaganj. All these were collectively classified under the 607 group and have mostly been regularised under subsequent Central Government sponsored land-titling schemes which entitled their resident families to freehold possession of individual plots after the colony lands were vested with the Government. Similarly, the 4 rural squatter colonies under the 607 group established in Ramganj-2 and Gobindpur GPs in Islampur block, and 12 squatter colonies under the same group established in Majhiali, Kamalagaon-Sujali, Haptiagachh and Sonapur GPs in Chopra blocks have also been regularised. In 2008, 4429 refugee families were residing in 27 squatter colonies under the 607 group in Uttar Dinajpur district as a whole, 94 percent of whom had already received freehold possession of their plots. While the 607 group colonies located in the urban areas around Raiganj and Kaliaganj were relatively smaller and held between 66-176 migrant families, each rural 607 group colony in Islampur SD held an average of 354 families, while the largest of these located at Subandigachh under Majhiali GP and Tin-mile Road under Sonapur GP had 434-464 resident families. Islampur SD thus held over two-thirds of the Partition migrants who had resettled in Uttar Dinajpur before 1958 and had rehabilitated themselves through their own efforts. The 607 group colonies in Islampur SD were thus much larger than the GS colonies. The role played by the social networks of the Partition refugees in assisting the subsequent resettlement of their fellow sufferers in Uttar Dinajpur is clearly evident from such figures.

In addition to the 607 group colonies which constitute the dominant section of squatter colonies established by Partition refugees in Uttar Dinajpur, one colony under the 175 group, housing 301 migrant families, exists at Indira Nagar in Raiganj. While this large colony has also subsequently been regularised with Central Government support, 3 other squatter colonies of new migrants under the 998 group in Raiganj SD and one colony under the 998 group in Islampur SD have also subsequently been regularised at the initiative of the State Government. However, from the overall rate of dropouts during the land-titling process, it becomes evident that around 2 percent of the registered refugee families who had initially resettled in Islampur SD have subsequently migrated away. While another 66 families living at the Shilpinagar-1 refugee colony are caught up in court litigations, around 1.5 percent of the migrant families at the other Uttar Dinajpur refugee colonies have been unable to produce valid refugee certificates at the time of claiming title rights to their lands, as a result of which their cases are still pending.

Uttar Dinajpur district thus has a total of 42 squatter colonies housing registered Partition migrants who had arrived in the district either between 1947 and 1958 (old migrants) or 1964 and 25 March 1971. While around 14 of these are urban colonies located within the municipal limits of Raiganj and Kaliaganj, the rural colonies scattered across Islampur and Chopra blocks contain over four-fifths of the registered refugee families in the old and new categories. No official records of registered Partition migrants exist

for the intervening period between 1959-1963 when the registration of refugee families in West Bengal had officially ceased. While a number of byanama and private refugee colonies were also established in West Dinajpur in the pre-1971 period through loan-based or privately funded schemes under which legal title to the colony lands had been secured through outright purchase, the precise locations and the number of refugee families accommodated in these is difficult to ascertain because of the absence of appropriate records. No official records obviously exist of later resettlements in Uttar Dinajpur in the post-1971 period, when the legal right to claim refugee status had ceased. Sharp growth of population in Uttar Dinajpur over the subsequent period would however suggest that the flow of migration remained unabated until very recently. After 1971, undocumented migration into the district has been sustained through the extensive social networks already established within the refugee community, aiding the rehabilitation and resettlement of later migrants in Uttar Dinajpur.

### Migration in the post-1971 Period

The erstwhile West Dinajpur region has evidently been especially prone to migratory movements of population after the 1947 partition of Bengal. Longterm migration and resettlement in the region can however be separated into two distinct phases. Transborder migration into Uttar & Dakshin Dinajpur between 1947-1971 had been heavily influenced by the legal right of entry accorded to migrants from East Pakistan whose displacement could be directly attributed to the extended consequences of Partition. In the post-1971 phase after the formation of Bangladesh, migration and resettlement from across the international border can no longer be ascribed to Partition and is therefore no longer a matter of right. Nevertheless, Uttar Dinajpur has continued to receive undocumented distress migration as well as economic migration from across the international border, in addition to domestic migration streams from adjoining West Bengal districts and the adjoining state of Bihar.

Although truncation of the original Dinajpur district into separate eastern and western territories that were alternately assigned to East Pakistan and India under the Radcliffe award produced compensating movements of population in the immediate aftermath of Partition, such movements initially amounted to local migration from one subdivision of the district to another. However, the 227km-long open international border created by the act of Partition turned several border areas in Uttar Dinajpur as well as adjoining Dakshin Dinajpur into corridors for major movements of DPs during the subsequent waves of migration from other districts that had been assigned to East Pakistan. In addition to these waves of international resettlement, Uttar Dinajpur has also received significant migration from adjoining districts in Bihar since 1956 when Islampur SD was transferred to West Bengal. Although linguistically and culturally distinct from each other, both streams of migration proceeded on similar lines, i.e., with the support of social and kinship networks that existed among people who had relocated earlier to West Dinajpur. In addition to the resettlement of displaced families, there was also economic migration by single males, who with time either married into these networks or brought in spouses from outside the district. Although not as strong as they were during the post-Partition disturbances, such patterns have continued into the present day.

Longterm migration trends in the districts of Uttar Dinajpur and Dakshin Dinajpur can be identified from the D-Series migration tables of successive Indian Censuses for the extended 30-year period 1971-2001. These tables classify migration trends under the two categories of longterm or lifetime migration defined in Census data relating to place of birth and short-term or intercensal migration defined in Census data relating to the place of last residence. The period 1971-2001 assumes special significance because it commences with the events subsequent to 25 March 1971 following the military crackdown in East Pakistan which caused an estimated 10 million refugees to flee into adjoining West Bengal districts including undivided

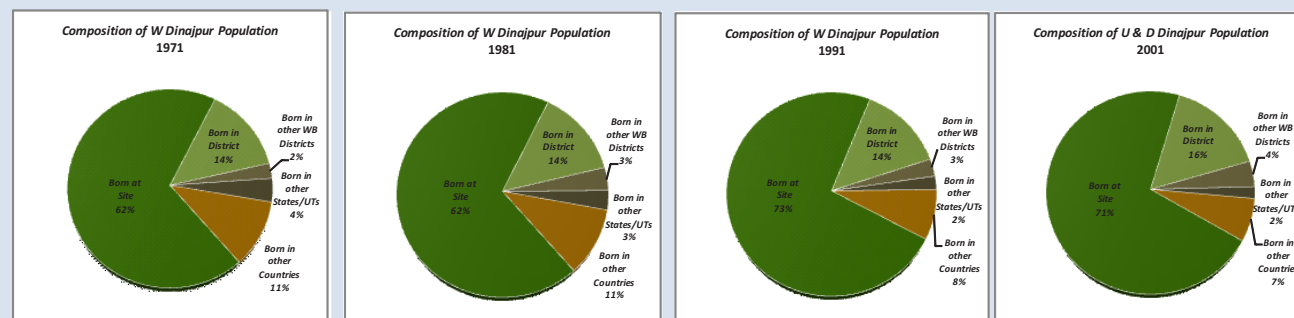
West Dinajpur. Following the post-conflict settlement brokered through the Indira-Mujib Pact, most of these persons were reported to have repatriated voluntarily to newly-independent Bangladesh. However, this also led to cessation of legal free-entry rights which had sustained past international migration of DPs, which until 1971 had been viewed as being the extended result of Partition.

**Table: Life-time Migration in Uttar & Dakshin Dinajpur, 1971-2001  
By Place of Birth**

	West Dinajpur Total 1971	West Dinajpur Total 1981	West Dinajpur Total 1991	U & D Dinajpur Total 2001	West Dinajpur Rural 1971	West Dinajpur Rural 1981	West Dinajpur Rural 1991	U & D Dinajpur Rural 2001	West Dinajpur Urban 1971	West Dinajpur Urban 1981	West Dinajpur Urban 1991	U & D Dinajpur Urban 2001
Total Population	18,59,887	24,04,949	31,25,613	39,44,972	16,86,997	21,36,221	27,08,413	34,53,675	1,72,890	2,68,723	4,17,200	4,91,297
Place of Birth												
Enumeration Site	12,80,297	16,52,091	22,93,531	28,13,079	11,94,028	15,01,677	20,16,534	24,96,093	86,269	1,50,414	2,76,997	3,16,986
Within District*	2,59,753	3,34,919	4,30,218	6,25,058	2,50,968	3,15,807	3,88,598	5,75,851	8,785	19,112	41,620	49,207
Other WB Districts	45,692	87,630	86,552	1,61,390	38,677	74,466	66,160	1,21,968	7,015	13,164	20,392	39,422
Other States/UTs	71,143	73,075	66,635	73,961	59,703	57,022	49,760	55,033	11,440	16,053	16,875	18,928
Other Countries	2,03,002	2,57,234	2,48,677	2,71,484	1,43,621	1,87,249	1,87,361	2,04,730	59,381	69,980	61,316	66,754

\*West Dinajpur till 1991; Combined total for Uttar & Dakshin Dinajpur in 2001

Source: D-Series Migration Tables, Census of India 1971-2001



In 1971, the population of undivided West Dinajpur numbered around 18.6 lakh persons and has since risen sharply to nearly 39 lakh persons over the 30-year period till 2001. Over the same period however, the proportion of lifetime migrants from external sources in the combined Uttar and Dakshin Dinajpur population has declined from 17 percent in 1971 to 13 percent in 2001, indicating that the sustained immigration trend in evidence between 1971-1981 has weakened subsequently, although net migration has continued. However, not all external migrants have relocated to Uttar and Dakshin Dinajpur from outside West Bengal. Besides receiving migration from neighbouring states and adjacent countries, Uttar Dinajpur has also received an increasing proportion of intrastate migrants born in other West Bengal districts, whose cumulative number has risen nearly four-fold from 0.46 lakh (2 percent) in 1971 to 1.61 lakh (4 percent) in 2001. The increase in intrastate migration between 1991-2001, subsequent to the bifurcation of West Dinajpur, is particularly noteworthy since it visibly includes population movement from Daskhin Dinajpur to Uttar Dinajpur and vice-versa. In addition to these broad migration streams that emanate from outside the district, considerable internal relocation from one place to another within Uttar and Dakshin Dinajpur has occurred over successive censuses. In terms of magnitude, intradistrict migration of this type has risen steadily from 2.6 lakh (13 percent) in 1971 to 6.3 lakh (16 percent) in 2001, basically representing the expansion of internal population movements for economic and nuptial reasons.

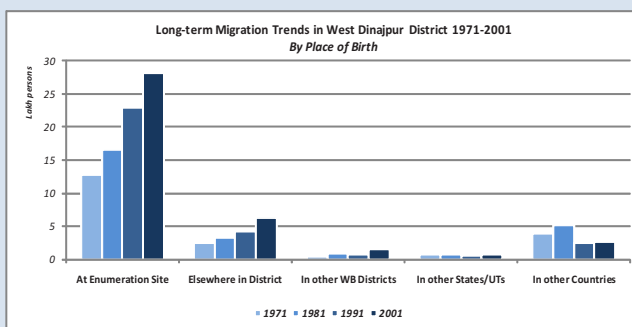
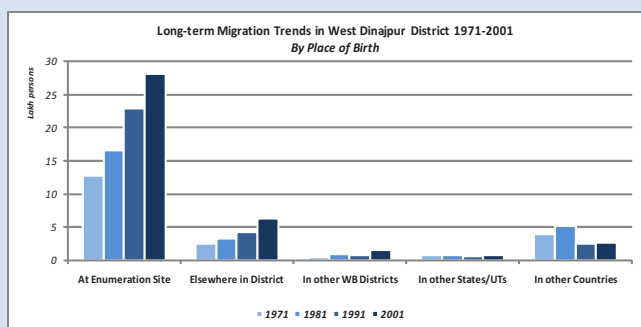
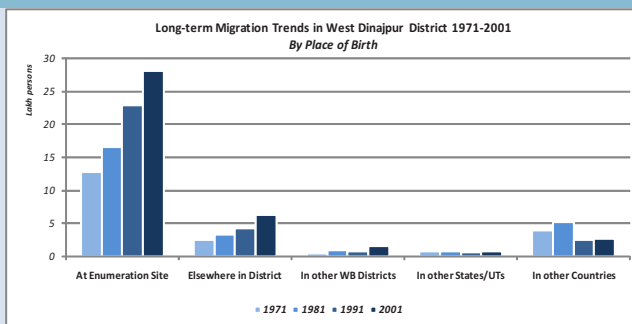
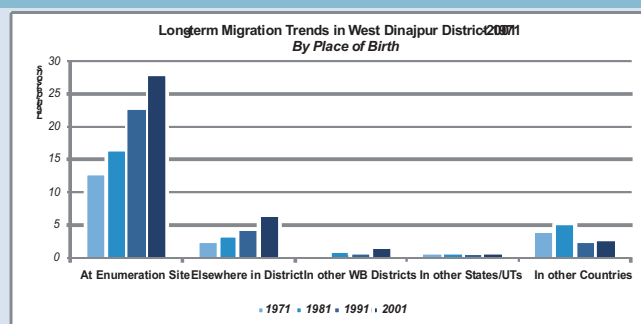
Between 1971-2001, strong urbanisation trends have also been evident within Uttar Dinajpur as reflected in the rapid growth of urban nodes at Raiganj, Kaliaganj, Islampur and Dalkola. These have obviously been accompanied by resettlement from rural to urban areas from within and without the district. The number of external migrants in the combined urban population of Uttar Dinajpur and Dakshin Dinajpur has however risen relatively slowly from 0.88 lakh to 1.25 lakh over the period, while declining in proportionate share from 50 percent to 36 percent. More external migration was therefore received by the urban centres in the past, compared to the subsequent period. Migrants from other countries had composed over a third of the urban population of Uttar and Dakshin Dinajpur in 1971. Between 1971-2001, their population grew slowly from 0.59 lakh to 0.67 lakh, while falling in proportionate terms to around 13 percent of the total urban population. Urban migration from other states also grew relatively slowly, as a result of which the share of outstate migrants in the urban population fell from 7 percent to less than 4 percent. In contrast, the growth of intrastate urban migrants from within Uttar and Dakshin Dinajpur and from other West Bengal districts was distinctively sharp. Consequently, their combined share in the urban population rose from 10 percent to 20 percent between 1971-2001. External migration from other countries into Uttar and Dakshin Dinajpur had been high between 1971-1981. Between 1981-1991 however, the number of such migrants fell from 2.57 lakh to 2.49 lakh, mainly because of 'step-migration' of early in-migrants from the urban areas of Uttar and Dakshin Dinajpur to resettle in other parts of North Bengal or elsewhere within India. Thereafter, the decade 1991-2001 has brought in a sizeable flow of migrants from other countries mainly to rural Uttar and Dakshin Dinajpur, raising their overall number to 2.71 lakh in 2001.

**Table: Gender Composition of Migration in Uttar & Dakshin Dinajpur, 1971-2001  
By Place of Birth**

Place of Birth		W Dinajpur 1971	W Dinajpur 1981	W Dinajpur 1991	U & D Dinajpur 2001
At Enumeration Site	Total	12,80,297	16,52,091	22,93,531	28,13,079
	Males	7,36,670	9,65,106	13,53,215	16,99,694
	Females	5,43,627	6,86,985	9,40,316	11,13,385
Within U & D Dinajpur	Total	2,59,753	3,34,919	4,30,218	6,25,058
	Males	67,928	66,998	73,646	1,07,496
	Females	1,91,825	2,67,921	3,56,572	5,17,562
Other WB Districts	Total	45,692	87,630	86,552	1,61,390
	Males	19,527	39,720	34,040	52,012
	Females	26,165	47,910	52,512	1,09,378
Other States/UTs*	Total	71,143	73,075	66,635	73,961
	Males	38,253	32,947	26,765	26,041
	Females	32,890	40,128	39,870	47,920
Other Countries	Total	2,03,002	2,57,234	2,48,677	2,71,484
	Males	1,05,559	1,36,841	1,32,694	1,44,829
	Females	97,443	1,20,393	1,15,983	1,26,655

Source: D-Series Migration Tables, Census of India, 1971-2001

\* UTs = Union Territories

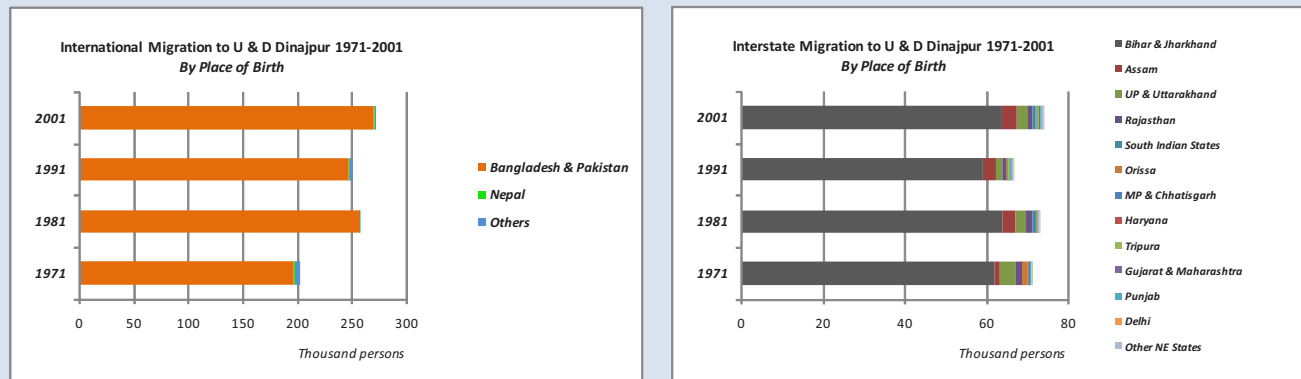


Analysis of gender patterns in lifetime migration between 1971-2001 yields further information about the nature of migration during different phases. In the case of intradistrict migration received from within Uttar and Dakshin Dinajpur which has risen from 2.60 lakh in 1971 to 6.25 lakh in 2001, the proportion of female to male migrants has also risen remarkably from 2.85:1 to 4.83:1. Although excess female migration is a normal result of nuptiality since women leave their natal homes on the point of marriage, the rise of female migration in ratio terms cannot be explained merely by local nuptiality. Excess female migration is also observed among interstate migrants from other states and among intrastate migrants born in other districts within West Bengal. Among the first of these groups, the number of female migrants in 1971 was 0.33 lakh. This was marginally lower than the number of male migrants born in other states, which stood at 0.38 lakh. Since 1981 however, there has consistently been excess female migration in the interstate category, such that the ratio of females to interstate male migrants in 2001 stood at 1.84:1 in a combined migrant population of 0.74 lakh. In the case of intrastate migration from other West Bengal districts, the number of female migrants has consistently exceeded the number of male migrants between 1971-2001. The proportion of females to males among intra-state migrants has therefore risen from 1.3:1 to 2.1:1, in a combined intrastate migrant population that has risen from 0.46 lakh to 1.61 lakh over the period. In strong contrast to these three categories where long-term female migration has consistently outstripped male migration, gender patterns in migration from other countries have traditionally favoured an excess of males. Unlike migration from other sources, the international migration stream has been firmly characterised by family migration, leading to maintenance of a relatively stable ratio of female to male migrants, at 0.92:1 in 1971 and 0.87:1 in 2001.

The most prominent lifetime migration stream into Uttar and Dakshin Dinajpur from external migration sources has come from erstwhile East Pakistan or Bangladesh. Between 1971 and 1981, the number of international migrants born within this source region escalated sharply from 1.97 lakh to 2.56 lakh. No major spurt has occurred thereafter. As a result, the number of lifetime migrants from this region has risen rather moderately after 1981 to 2.71 lakh in 2001. The overall dominance of Bangladesh as the point of origin for international migrants into Uttar Dinajpur may be gauged from the fact that Nepal - the country that stands next in order of importance - had contributed only 860 migrants in 1971 and 901 migrants in

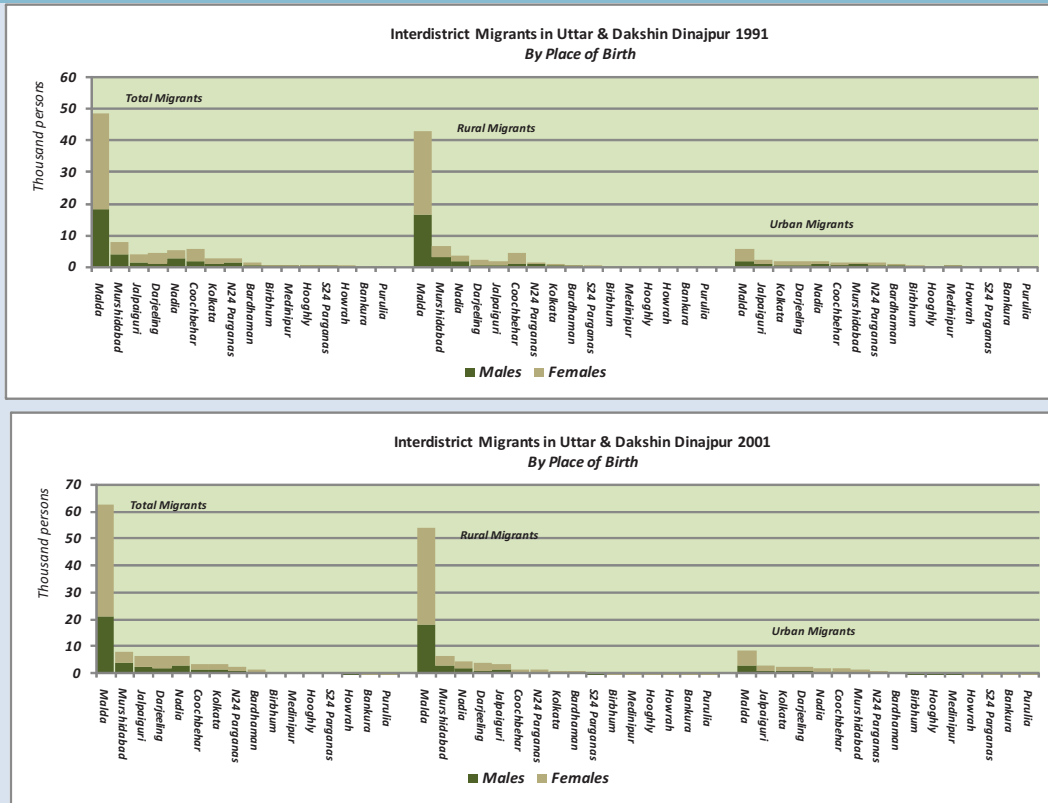


2001. For interstate migration into Uttar and Dakshin Dinajpur, the dominant source has been the adjoining state of Bihar. The number of lifetime migrants from this source state has however risen relatively slowly from 0.62 lakh in 1971 to 0.64 lakh in 2001. In contrast, the interstate migration stream from Assam, which stands next in order of importance, has risen rapidly from 1455 in 1971 to 4025 in 2001. The overall dominance of Bihar as a source for interstate migration is however amply evident.



The primary source districts for intrastate migration into Uttar and Dakshin Dinajpur are Malda and Murshidabad. However, while migration of people born in Malda has risen sharply from 0.48 lakh to 0.63 lakh between 1991-2001, the number of lifetime migrants received from Murshidabad over the same period has remained steady at just over 0.08 lakh. Combined migration into Uttar and Dakshin Dinajpur from the other North Bengal districts has however risen rather steeply from 0.13 lakh to 0.20 lakh during this period, compensating for the absolute decline in lifetime migrants born in the south Bengal districts from 0.17 lakh to 0.16 lakh. Intradistrict migration between different parts of Uttar and Dakshin Dinajpur has also risen significantly from 2.60 lakh to 6.25 lakh in over the 30-year period 1971-2001, lending support to the hypothesis of step migration. Lifetime migration from Dakshin Dinajpur to Uttar Dinajpur and vice versa had been invisible prior to the bifurcation of the two districts in 1992. In 2001 when it became visible for the first time as interdistrict migration, it was seen to be a significant source for internal population movements within the two districts, adding another 0.47 lakh lifetime migrants to the total number of 1.61 lakh interdistrict migrants from the other West Bengal districts reported for that year.

In the case of intrastate movements, surplus female migration surpassing the extent of male migration has become a distinctive feature of the migratory movements of population from the district of Malda to Uttar Dinajpur, especially after 1991. The ratio of females to males among the lifetime migrants from Malda has thus risen from 1.67:1 to 1.95:1 over the period 1991-2001. There is sufficient reason to believe that this reflects increased nuptial movements of females following a previous phase of single male migration. Several factors drive the outmigration of males from the district of Malda, among which are losses of agricultural land to river erosion, as well as overwhelming land pressure which reduces the availability of rural work and has driven up land prices in that district. Disposals of land in Malda by persons who outmigrate from that district enables them secure larger operational or ownership holdings through tenancy arrangements or outright purchase in Uttar Dinajpur where land pressure on the whole is less. As reported by village residents during field visits in the course of preparing the Uttar Dinajpur DHDR, migrant cultivators from Malda have also brought in several innovative landuse practices, including aquaculture and the cultivation of makhna (lotus seed) in the Uttar Dinajpur wetlands. This has induced substantial new settlement and population growth in the Goalpokhar and Itahar regions where such wetlands abound. The introduction of maize cultivation is also widely attributed to migrants from Malda. Substantial interdistrict migration to Uttar Dinajpur from Malda has thus transformed the face of agriculture in Uttar Dinajpur.



In-migration from Malda and Murshidabad, particularly into specific parts of Islampur SD, has also gradually altered the religious complexion of the district population in Uttar Dinajpur. The proportion of Muslims in the combined Uttar and Dakshin Dinajpur populations has thus risen steadily from 2.16 lakh (29.9%) in 1951 prior to the incorporation of Islampur SD, to 15.18 lakh (38.5%) in 2001, while the number of Hindus has risen to 23.8 lakh. Separate population figures for Uttar Dinajpur and Dakshin Dinajpur that are available from 1991 however show that the concentration of Muslims is mainly in Uttar Dinajpur district. In proportionate terms, the share of Muslims in the district population of Uttar Dinajpur has risen from 45.4 percent to 47.4 percent between 1991-2001. In Dakshin Dinajpur, their proportion has increased from 23 percent to 24 percent. The migration statistics establish additionally that a significant proportion of Muslim migration has come from the districts of Malda and Murshidabad, rather than from across the international border. Nevertheless, while the migration of persons born in Murshidabad has risen only marginally between 1991-2001 and is also well balanced in gender terms, migration from Malda has increased steeply and is now dominated by female migration. The areas of Muslim concentration in Uttar Dinajpur now include the four blocks of Raiganj SD which extend northward in a continuum from the Muslim dominated region of adjoining Malda. The share of Muslims in the rural population here ranges from 60-90 percent. In addition, the blocks of Islampur, Chopra and Goalpokhar-1 in Islampur SD now have Muslim concentrations ranging from 40-60 percent. Consequently, when combined with the SC and ST population, the concentration of weaker social sections in the rural population in 7 of the 9 Uttar Dinajpur blocks ranges from 85-95 percent.

In collective terms, the other North Bengal districts as well as the South Bengal districts of Nadia, Kolkata and North 24-Parganas have also contributed significantly to intrastate migration into Uttar and Dakshin Dinajpur. While Darjeeling and Jalpaiguri had each accounted for just over 0.04 lakh lifetime migrants each in 1991, their relative contributions to intrastate migration flows in Uttar and Dakshin Dinajpur in

2001 has risen substantially to over 0.06 lakh. Migration from Coochbehar has declined from 0.06 lakh persons to 0.04 lakh between 1991-2001, while migration from the three named South Bengal districts has risen over the period is highest at 0.07 lakh persons for Nadia. With the exception of Coochbehar, the patterns of migration from the other districts are skewed sharply in favour of females, pointing to nuptial migration as their primary source. Since most migrants from Malda district have preferred to resettle in rural areas, their economic migration into Uttar and Dakshin Dinajpur has been driven by better access to land and agricultural work opportunities. The proportion of rural lifetime migrants to total migrants from Malda to Uttar and Dakshin Dinajpur thus amounted to 89 percent in 1991 and 86 percent in 2001. Separately for Uttar Dinajpur alone, the proportion of rural to total migrants from Malda amounted to 87 percent in 2001. The recent gender patterns for rural migration from Malda are also skewed increasingly towards females, indicating high nuptial migration of women following an earlier phase of migration of single males.

**Table: Intra-state Migration from West Bengal Districts to Uttar & Dakshin Dinajpur, 1991-2001  
By Place of Birth**

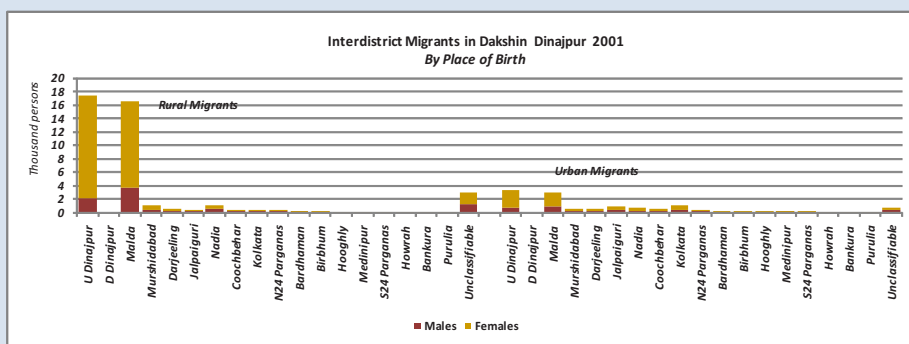
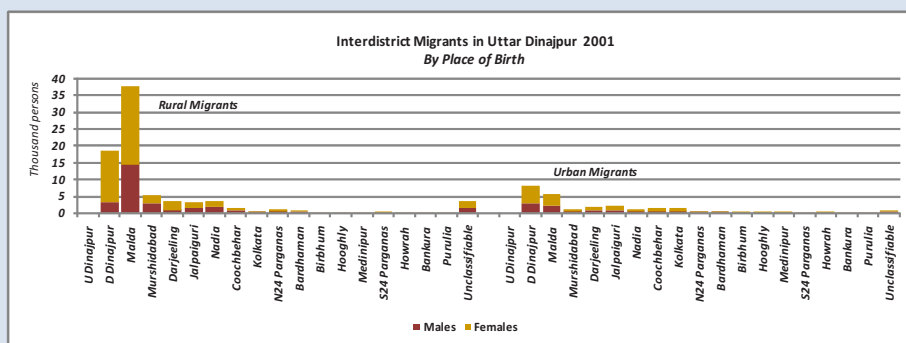
Source Regions	1991	1991	1991	2001	2001	2001	2001	2001	2001	2001	2001	2001
	West Dinajpur	West Dinajpur	West Dinajpur	U & D Dinajpur	U & D Dinajpur	U & D Dinajpur	Uttar Dinajpur	Uttar Dinajpur	Uttar Dinajpur	Dakshin Dinajpur	Dakshin Dinajpur	Dakshin Dinajpur
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Uttar Dinajpur	-	-	-	-	-	-	-	-	-	20,629	2,927	17,702
Dakshin Dinajpur	-	-	-	-	-	-	26,811	6,204	20,607	-	-	-
Outside U & D Dinajpur	85,842	26,618	51,952	113,950	42,881	71,069	75,958	30,709	45,249	30,039	8,812	21,227
Malda	48,410	18,140	30,270	62,684	21,237	41,447	43,224	16,681	26,543	19,460	4,556	14,904
Murshidabad	8,040	4,000	4,040	8,242	4,003	4,239	6,617	3,341	3,276	1,625	662	963
Darjeeling	4,300	1,110	3,190	6,590	1,984	4,606	5,491	1,600	3,891	1,099	384	715
Nadia	5,360	2,730	2,630	6,516	3,088	3,428	4,768	2,344	2,424	1,748	744	1,004
Jalpaiguri	4,030	1,500	2,530	6,684	2,568	4,116	5,439	2,076	3,363	1,245	492	753
Coochbehar	5,790	1,810	3,980	3,648	1,575	2,073	2,768	1,218	1,550	880	357	523
North 24-Parganas	2,730	1,370	1,360	2,407	1,083	1,324	1,760	854	906	647	229	418
Bardhaman	1,350	590	760	1,695	717	978	1,236	536	700	459	181	278
Kolkata	2,832	1,070	1,762	3,425	1,397	2,028	1,984	830	1,154	1,441	567	874
South 24-Parganas	520	270	250	681	309	372	438	206	232	243	103	140
Birbhum	610	260	350	810	328	482	516	217	299	294	111	183
Hooghly	510	250	260	732	320	412	457	203	254	275	117	158
Medinipur	600	360	240	740	391	349	438	237	201	302	154	148
Bankura	220	130	90	365	194	171	263	140	123	102	54	48
Howrah	370	230	140	516	219	297	371	155	216	145	64	81
Purulia	170	70	100	262	108	154	188	71	117	74	37	37

**Table: Intrastate Migration from West Bengal Districts to Uttar & Dakshin Dinajpur 1991-2001  
By Place of Birth (Contd.)**

Source Regions	1991	1991	1991	2001	2001	2001	2001	2001	2001	2001	2001	2001
	West Dinajpur	West Dinajpur	West Dinajpur	U & D Dinajpur	U & D Dinajpur	U & D Dinajpur	Uttar Dinajpur	Uttar Dinajpur	Uttar Dinajpur	Dakshin Dinajpur	Dakshin Dinajpur	Dakshin Dinajpur
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Uttar Dinajpur	-	-	-	-	-	-	-	-	-	17,352	2,171	15,181
Dakshin Dinajpur	-	-	-	-	-	-	18,584	3,270	15,314	-	-	-
Outside U & D Dinajpur	65,580	25,810	39,770	86,032	31,758	54,274	58,230	23,527	34,703	21,261	5,591	15,670
Malda	42,880	16,340	26,540	53,875	18,134	35,741	37,436	14,474	22,962	16,439	3,660	12,779
Murshidabad	6,460	3,260	3,200	6,437	3,184	3,253	5,404	2,752	2,652	1,033	432	601
Darjeeling	2,320	510	1,810	4,115	1,113	3,002	3,634	953	2,681	481	160	321
Nadia	3,510	1,820	1,690	4,570	2,248	2,322	3,501	1,760	1,741	1,069	488	581
Jalpaiguri	1,950	620	1,330	3,793	1,522	2,271	3,347	1,350	1,997	446	172	274
Coochbehar	4,210	1,130	3,080	1,746	771	975	1,419	650	769	327	121	206
North 24-Parganas	1	730	700	1,534	700	834	1,197	589	608	337	111	226
Bardhaman	550	260	290	888	377	511	638	283	355	250	94	156
Kolkata	910	410	500	925	379	546	544	222	322	381	157	224
South 24-Parganas	310	180	130	395	178	217	297	137	160	98	41	57
Birbhum	230	110	120	305	126	179	190	90	100	115	36	79
Hooghly	260	130	130	232	100	132	160	72	88	72	28	44
Medinipur	190	100	90	256	118	138	155	76	79	101	42	59
Bankura	120	70	50	150	77	73	110	57	53	40	20	20
Howrah	170	110	60	156	61	95	100	37	63	56	24	32
Purulia	80	30	50	114	30	84	98	25	73	16	5	11
<b>URBAN</b>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>
Uttar Dinajpur	-	-	-	-	-	-	-	-	-	3,277	756	2,521
Dakshin Dinajpur	-	-	-	-	-	-	8,227	2,934	5,293	-	-	-
Outside U & D Dinajpur	20,262	808	12,182	27,918	11,123	16,795	17,728	7,182	10,546	8,778	3,221	5,557
Malda	5,530	1,800	3,730	8,809	3,103	5,706	5,788	2,207	3,581	3,021	896	2,125
Jalpaiguri	2,080	880	1,200	2,891	1,046	1,845	2,092	726	1,366	799	320	479
Darjeeling	1,980	600	1,380	2,475	871	1,604	1,857	647	1,210	618	224	394
Kolkata	1,922	660	1,262	2,500	1,018	1,482	1,440	608	832	1,060	410	650
Coochbehar	1,580	680	900	1,902	804	1,098	1,349	568	781	553	236	317
Nadia	1,850	910	940	1,946	840	1,106	1,267	584	683	679	256	423
Murshidabad	1,580	740	840	1,805	819	986	1,213	589	624	592	230	362
Bardhaman	800	330	470	807	340	467	598	253	345	209	87	122
North 24-Parganas	1,300	640	660	873	383	490	563	265	298	310	118	192
Birbhum	380	150	230	505	202	303	326	127	199	179	75	104
Hooghly	250	120	130	500	220	280	297	131	166	203	89	114
Medinipur	410	260	150	484	273	211	283	161	122	201	112	89
Howrah	200	120	80	360	158	202	271	118	153	89	40	49
Bankura	100	60	40	215	117	98	153	83	70	62	34	28
South 24-Parganas	210	90	120	286	131	155	141	69	72	145	62	83
Purulia	90	40	50	148	78	70	90	46	44	58	32	26

Source: D-Series Migration Tables, Census of India, 1991 & 2001

Although urban migration sourced from Malda is consequently much lower in proportionate terms, Malda, nevertheless, remains the dominant source for intra-state migration into the urban areas. However, since the gender ratios are more even, urban migration sourced from Malda appears to have involved the relocation of entire families rather than single males alone. Kolkata occupies the third place after Jalpaiguri for migration to urban areas and collectively, these three districts followed by Darjeeling account for over half of the total urban migrants received by Uttar Dinajpur and Dakshin Dinajpur. Unlike rural migration, intrastate migration into urban areas is usually related to the availability of salaried white collar jobs, business opportunities and blue collar service-sector occupations in urban construction, etc. Over time, the gender proportions within such migration into urban Uttar Dinajpur have also tended to get more balanced because of the relocation of families.



Although both Uttar Dinajpur and Dakshin Dinajpur have received net migration, significant differences in the pattern of rural migration received by the two districts can be observed during detailed analysis of the 2001 migration figures. While interdistrict migration between Uttar and Dakshin Dinajpur nearly balances out, with 0.17 lakh persons migrating from Uttar Dinajpur from Dakshin Dinajpur, against 0.19 lakh migrants received by Uttar Dinajpur from Dakshin Dinajpur, both streams are heavily skewed in gender terms, to the tune of over five female migrants to every male migrant. Uttar Dinajpur has also received the bulk of interdistrict migration from Malda, absorbing 0.37 lakh persons compared to the 0.16 lakh migrants absorbed by Dakshin Dinajpur. Rural migration from Murshidabad and from the other North Bengal districts has also been much more significant in Uttar Dinajpur than in Dakshin Dinajpur. Bifurcation of the erstwhile district of West Dinajpur has propelled the former subdivisional town of Raiganj into a new commercial and administrative role as the headquarters of Uttar Dinajpur district. Accordingly, there has been greater urban migration from Dakshin Dinajpur to Uttar Dinajpur than vice versa. Accelerated growth of Raiganj and other new urban nodes like Dalkola in Uttar Dinajpur has also meant that most interstate migration to urban areas has been directed to the new district.

## Economic Factors behind Migration

While longterm migration into Uttar Dinajpur from across the international border has largely been driven by the sequence of political events and continuing community insecurities, the causes of intrastate and interstate migration are generally economic in nature. A study of occupational patterns in economic migration in Uttar Dinajpur between 1991-2001, defined in terms of the sectors of work and changes in place of last residence reported by intercensal migrants, helps in identifying the sources of migration as well as recent economic migration trends. With the migrant workforce rising by 2.65 lakh from 2.86 lakh workers in 1991 to 5.52 lakh workers in 2001, recent economic migration within Uttar and Dakshin Dinajpur has been very strong. In 1991, 30.6 percent of the migrant workforce was engaged in cultivation. By 2001, the proportionate presence of migrant cultivators had fallen significantly to 22.6 percent, mainly because of the large increase in migrant workers engaged in agricultural labour. Besides bearing out the hypothesis that economic migration into Uttar Dinajpur had been driven in the past by the greater accessibility of land which enabled new migrants to rise quickly to the status of tenant or owner cultivators, this also provides evidence that the progressive agriculture brought in by the initial migrants has subsequently expanded the demand for wage labour in the district, encouraging the subsequent economic migration and engagement of workers in other occupational activities.

With rural migration being dominant in Uttar and Dakshin Dinajpur, most economic migrants have so far been absorbed in agricultural activities. Between 1991-2001, the proportion of agricultural labourers in the total migrant workforce has thus risen from 33.1 percent to 38.1 percent. Within the rural migrant workforce, the proportion of migrant agricultural labourers has risen even more significantly from 38.8 percent to 43.1 percent indicating that fewer economic migrants have been able to achieve the status of cultivators in recent years. Nevertheless, better access to land and improved irrigation have fuelled subsequent increases in labour demand and agricultural productivity, and have continued to draw a stream of new rural migrants into Uttar and Dakshin Dinajpur. While non-farm workers have also migrated in large numbers into the region, their proportion within the migrant workforce has remained relatively static at around 32 percent between 1991-2001. Non-farm occupations have however drawn in considerable economic migration into the urban areas of Uttar and Dakshin Dinajpur, where the proportion of other non-farm workers has risen significantly from 85.1 percent to 89.6 percent of the urban migrant workforce. The proportion of household industry [HHI] workers has also risen significantly from 3.8 percent to 6.4 percent of the migrant workforce over the same period 1991-2001, with sharper increases occurring in urban areas.

**Table: Economic Patterns of Migration in Uttar Dinajpur & Dakshin Dinajpur, 1991-2001  
By Place of Last Residence**

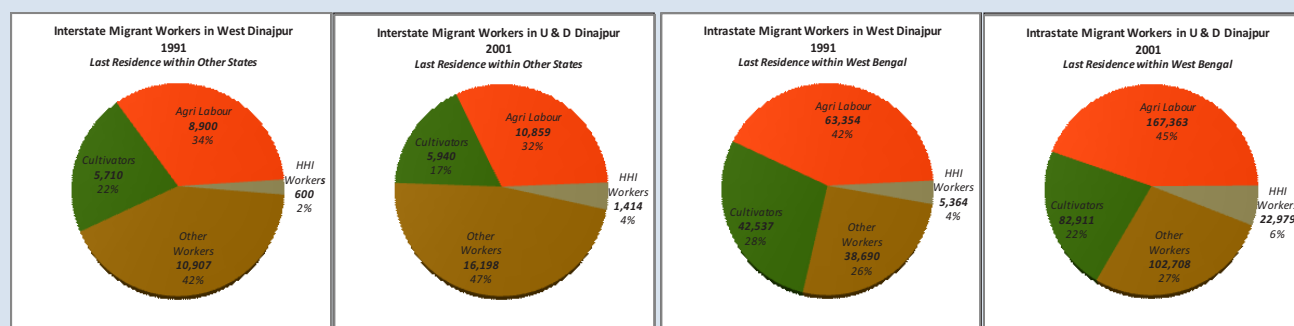
Region			Migrant Workers	Migrant Cultivators	Migrant Agricultural Labourers	Migrant Household Industry [HHI] Workers	Migrant Other Workers	% Migrant Cultivators	% Migrant Agri Labourers	% Migrant HHI Workers	% Migrant Other Workers
West Dinajpur	Total	1991	286,702	87,827	94,771	10,971	93,133	30.6	33.1	3.8	32.5
	Rural	1991	235,660	85,065	91,477	9,417	49,701	36.1	38.8	4.0	21.1
	Urban	1991	51,042	2,762	3,294	1,554	43,432	5.4	6.5	3.0	85.1
U & D Dinajpur	Total	2001	552,371	124,922	210,178	35,279	181,992	22.6	38.1	6.4	32.9
	Rural	2001	482,784	123,960	208,239	30,975	119,610	25.7	43.1	6.4	24.8
	Urban	2001	69,587	962	1,939	4,304	62,382	1.4	2.8	6.2	89.6

**Table: Economic Patterns of Migration in Uttar Dinajpur & Dakshin Dinajpur, 1991-2001  
By Place of Last Residence**

Contd.

Region			Migrant Workers	Migrant Cultivators	Migrant Agricultural Labourers	Migrant Household Industry [HHI] Workers	Migrant Other Workers	% Migrant Cultivators	% Migrant Agri Labourers	% Migrant HHI Workers	% Migrant Other Workers
U Dinajpur	Total	2001	301,284	71,134	119,351	16,821	93,978	23.6	39.6	5.6	31.2
	Rural	2001	261,799	70,521	118,083	15,435	57,760	26.9	45.1	5.9	22.1
	Urban	2001	39,485	613	1,268	1,386	36,218	1.6	3.2	3.5	91.7
D Dinajpur	Total	2001	251,087	53,788	90,827	18,458	88,014	21.4	36.2	7.4	35.1
	Rural	2001	220,985	53,439	90,156	15,540	61,850	24.2	40.8	7.0	28.0
	Urban	2001	30,102	349	671	2,918	26,164	1.2	2.2	9.7	86.9

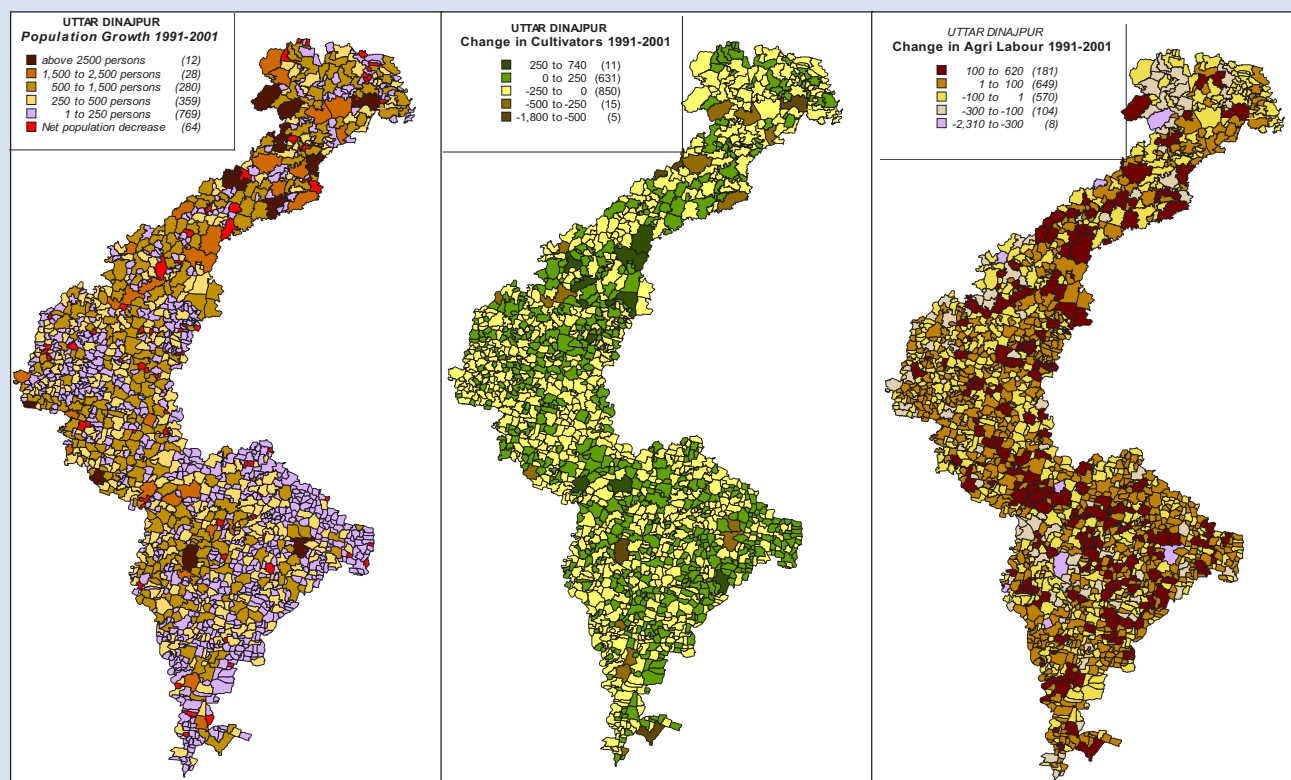
Source: D-Series Migration Tables, Census of India, 1991 & 2001



Economic migration from other Indian states and other West Bengal districts remained relatively steady between 1991-2001, accounting for just over a fifth of the total migrant workforce in Uttar and Dakshin Dinajpur. However, the relative importance of the two migration streams has changed considerably, with the proportionate share of interstate migrants falling from 9 percent to 6 percent over the period, while that of intrastate migrants has risen commensurately from 13 percent to 15 percent. As seen in the associated charts, the proportion of migrant cultivators among interstate and intrastate migrants in Uttar and Dakshin Dinajpur has also declined substantially between 1991-2001, which has been partially compensated by the increasing share of economic migrants in other occupational activities. While fewer interstate migrants are being drawn now to the agricultural sector in Uttar and Dakshin Dinajpur, interstate migration into the region is still being driven by work opportunities within the non-farm sector. Economic migration into Uttar and Dakshin Dinajpur from other districts in West Bengal has risen considerably with growing opportunities for agricultural work and non-farm work between 1991-2001. While the proportionate share of migrant cultivators among intrastate migrants has declined over the period, the absolute number of intrastate migrants who have attained the status of cultivators has expanded considerably from 0.39 lakh in 1991 to 0.83 lakh in 2001. Thus the attraction offered by easier access to agricultural land in Uttar and Dakshin Dinajpur also continues to be a strong inducement for intrastate migration into the region, although the resulting stream of economic migration is not as prominent as it had been in the past.

Longterm economic migration into the Dinajpur region has given migrant workers a strong economic presence in both Uttar and Dakshin Dinajpur districts. In 2001, the migrant workforce of 3.01 lakh workers in Uttar Dinajpur comprised more than a quarter of the aggregate workforce of 11.56 lakh workers, while in Dakshin Dinajpur, the migrant workforce of 2.51 lakh workers comprised over a third of the aggregate workforce of 6.13 lakh workers. Over one-fourth of the cultivators in Uttar Dinajpur were economic migrants against 28 percent in Dakshin Dinajpur. Economic migrants also constituted one-third of the agricultural labourers, 49 percent of the HHI workers and 37 percent of the other non-farm workers in Uttar Dinajpur. Their presence was even stronger in Dakshin Dinajpur, where they comprised 41 percent of the agricultural labourers, 62 percent of the HHI workers and 51 percent of the non-farm workers. As the larger of the two districts however, Uttar Dinajpur accounted for a much larger number of migrant cultivators, agricultural workers and non-farm workers compared to Dakshin Dinajpur in absolute terms, while stronger presence of HHI workers was evident in Dakshin Dinajpur because of the dominance of artisanal crafts like handloom weaving in that district. Because of its relatively favourable agroclimatic situation and its ability to absorb a large number of economic migrants into both farm based and non-farm based activities, Uttar Dinajpur has traditionally exerted a stronger economic pull compared to Dakshin Dinajpur, and has consequently drawn in more interdistrict and interstate migrants compared to the latter. While the Dakshin Dinajpur borders have formed a convenient gateway into the region for many international migrants after 1947, a fairly large section among them has subsequently resettled in Uttar Dinajpur through step migration, in view of the better agricultural and commercial prospects that exist within Uttar Dinajpur.

## MAP: Village-level Change in Population, Cultivators & Agricultural Workers in Uttar Dinajpur, 1991-2001





Some idea of the overall impact of these economic pull factors on the agricultural sector in Uttar Dinajpur can be gained from examination of recent intercensal growth in population in relation to the resulting village-level changes in the number of cultivators and agricultural labourers in different mouza areas within Uttar Dinajpur. As is evident from the associated regional maps, absolute growth of population has been stronger over the period 1991-2001 in the villages of Islampur SD than in those under Raiganj SD. Strong clustered increases in mouza populations have occurred in the northernmost villages that stretch from the interstate border with Bihar to the international border in Chopra and Islampur blocks. Population growth in the Goalpokhar region has been clustered more centrally around the villages that form the common border between Goalpokhar-1 and Golpokhar-2 blocks, while in Karandighi, population growth has again been widely dispersed through the villages located along the international border as well as those on the border with Bihar. In Raiganj SD, in marked contrast, population growth has been clustered in the villages along the peripheries of Raiganj and Kaliaganj municipalities, and thins out along the international border and along the interdistrict borders with Malda and Dakshin Dinajpur.

Strong increases have occurred in the number of cultivators in most villages located within Goalpokhar-1 block as well as in contiguous villages in Goalpokhar-2 and Islampur blocks. However in northern Islampur and Chopra blocks where population growth has been strongest, there has been a strong shrinkage in the number of cultivators because of the switchover from farming to small tea plantations. Despite the relatively even increase in village populations across Karandighi block, growth of cultivators is less evident except along the border with Raiganj block. Thus the villages where the cultivator population has grown are interspersed fairly evenly with other villages where the absolute number of cultivators has declined. Among the Raiganj SD villages, clustered growth in cultivators has occurred in villages adjoining the Kaliaganj-Dakshin Dinajpur border and in the northern villages stretching from Raiganj towards Hemtabad, while most villages along the Bihar and Malda borders in Raiganj and Itahar blocks show a clustered shrinkage in cultivator numbers. Most villages located along the international border in Raiganj SD have also experienced absolute declines in the number of cultivators. Moderate to high increases in the number of agricultural labourers have however occurred in the vast majority of villages throughout Uttar Dinajpur district, with their growth being especially polarised in the irrigated tracts within Islampur and Goalpokhar-1 blocks, and also along the axis spreading from southern Karandighi across Raiganj and southern Hemtabad into Kaliaganj block. In Chopra and Goalpokhar-2 blocks and also in the villages along the urban periphery of Raiganj in contrast, the absolute numbers of agricultural labourers show a moderate to strong decline.

Translating these occupational trends into the corresponding economic pull factors, it would seem that population growth in most parts of Islampur SD is driven by internal and inter-state migration of agricultural labourers and also by inter,district migration and resettlement of cultivators. While the impact of these economic pulls on recent international migration is more difficult to confirm, the locational evidence points towards the resettlement of such migrants as cultivators in Goalpokhar-1 block and as agricultural labourers throughout Islampur block, both of which are contiguous to the international border. Economic migration and population growth in Goalpokhar-2 and Karandighi, on the other hand, have been driven by overall growth of work opportunities in the agricultural and non-agricultural sector. Though most blocks in Raiganj SD, population growth and migration have been driven by the expanding presence of irrigation and the growing labour demands of agriculture, as well as by growing opportunities for non-farm employment along the periphery of urban areas. Strong economic pulls are nevertheless in evidence across much of Uttar Dinajpur, making the district a prime destination for economic migrants.

## Gender & Economic Migration

Till 1991, economic migration into Uttar and Dakshin Dinajpur had been overwhelmingly characterised by the migration of single male workers. Between 1991-2001, however, the composition of the migrant workforce underwent a radical change with the number of women migrant workers increasing from 0.79 lakh to 3.06 lakh against the increase in male migrant workers from 2.07 lakh to 2.46 lakh over the same period. While to some extent, this vast increase in female migration represents the nuptial migration of women between Dakshin Dinajpur and Uttar Dinajpur made visible by the bifurcation of erstwhile West Dinajpur in 1992, it also indicates that nuptial migration in the region has gradually acquired an economic character with more women migrants being drawn into the migrant workforce at their new homes, raising women's work participation in the region.

As a direct consequence, the proportion of women migrants in the aggregate migrant workforce in Uttar and Dakshin Dinajpur increased to over 55 percent in 2001 from around 28 percent in 1991. Within the agricultural sector, the absolute number of female migrant cultivators rose from 0.14 lakh to 0.61 lakh over the period, accompanying an increase in the number of women migrant agricultural workers from 0.46 lakh to 1.55 lakh. However in relative terms, the proportion of women cultivators in the aggregate female migrant workforce rose marginally from 18 percent to 19.8 percent, while the share of women agricultural labourers declined in proportionate terms from 57.8 percent to 50.6 percent between 1991-2001. Substantial increases however occurred both in absolute and relative terms in the participation of women migrants in non-farm activities, particularly in rural areas. As noted previously, growing nuptial migration of women within Uttar and Dakshin Dinajpur has followed the prior economic migration of single males, many of whom had originated from adjoining districts and states as well as adjoining countries. Growing work participation by migrant women thus attests to the growing intensity of economic pressures resulting from continued economic migration within the region. While rural work opportunities have expanded considerably in the two Dinajpur districts, more of these are being filled now through the engagement of women migrants who seek to contribute jointly with their spouses to the earnings of their households. However, with the relative decline of work opportunities that are open to male migrant workers and the accompanying depression of rural wage rates because of increasing labour competition, economic migration by male workers into Uttar and Dakshin Dinajpur has begun to slow. Meanwhile, many rural male workers now have to migrate outside the region, at least seasonally, in order to find adequate work.

**Table: Gender Composition of Migrant Workforce in Uttar & Dakshin Dinajpur, 1991-2001  
By Place of Last Residence**

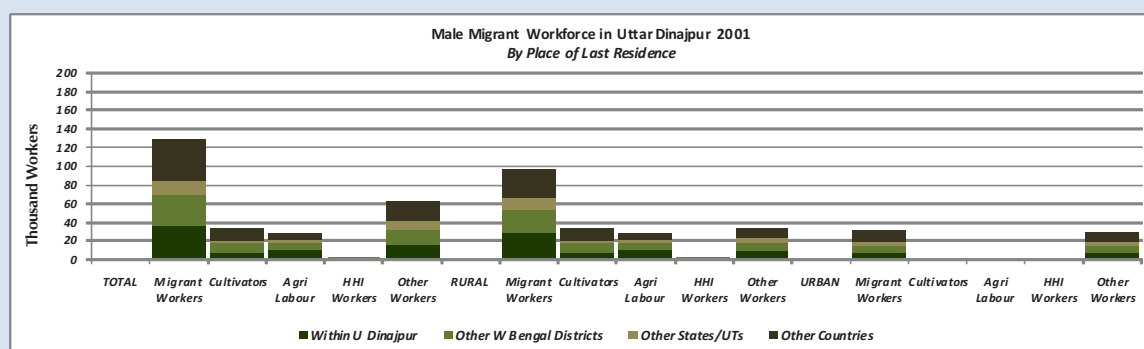
			Migrant Workers	Migrant Cultivators	Migrant Agri Labourers	Migrant HHI Workers	Migrant Other Workers	% Migrant Cultivators	% Migrant Agri Labourers	% Migrant HHI Workers	% Migrant Other Workers
<i>Male Migrant Workers</i>											
West Dinajpur	Total	1991	207,444	73,590	48,927	5,509	79,418	35.5	23.6	2.7	38.3
	Rural	1991	162,643	70,990	46,350	4,532	40,771	43.6	28.5	2.8	25.1
	Urban	1991	44,801	2,600	2,577	977	38,647	5.8	5.8	2.2	86.3
U & D Dinajpur	Total	2001	246,433	64,229	55,481	9,296	117,427	26.1	22.5	3.8	47.7
	Rural	2001	192,066	63,417	54,464	7,500	66,685	33.0	28.4	3.9	34.7
	Urban	2001	54,367	812	1,017	1,796	50,742	1.5	1.9	3.3	93.3

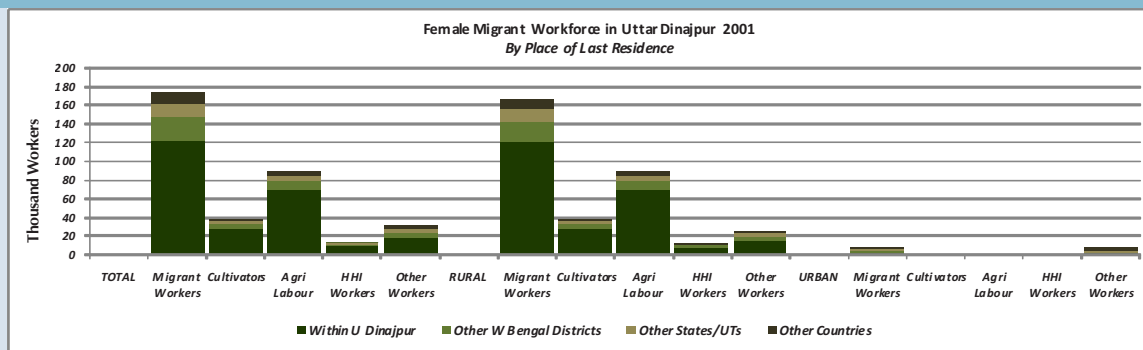
**Table: Gender Composition of Migrant Workforce in Uttar & Dakshin Dinajpur, 1991-2001  
By Place of Last Residence**

Contd.

			Migrant Workers	Migrant Cultivators	Migrant Agri Labourers	Migrant HHI Workers	Migrant Other Workers	% Migrant Cultivators	% Migrant Agri Labourers	% Migrant HHI Workers	% Migrant Other Workers
U Dinajpur	Total	2001	128,118	32,749	29,314	3,508	62,547	25.6	22.9	2.7	48.8
	Rural	2001	96,448	32,247	28,586	2,890	32,725	33.4	29.6	3.0	33.9
	Urban	2001	31,670	502	728	618	29,822	1.6	2.3	2.0	94.2
D Dinajpur	Total	2001	118,315	31,480	26,167	5,788	54,880	26.6	22.1	4.9	46.4
	Rural	2001	95,618	31,170	25,878	4,610	33,960	32.6	27.1	4.8	35.5
	Urban	2001	22,697	310	289	1,178	20,920	1.4	1.3	5.2	92.2
<i>Female Migrant Workers</i>											
West Dinajpur	Total	1991	79,258	14,237	45,844	5,462	13,715	18.0	57.8	6.9	17.3
	Rural	1991	73,017	14,075	45,127	4,885	8,930	19.3	61.8	6.7	12.2
	Urban	1991	6,241	162	717	577	4,785	2.6	11.5	9.2	76.7
U & D Dinajpur	Total	2001	305,938	60,693	154,697	25,983	64,565	19.8	50.6	8.5	21.1
	Rural	2001	290,718	60,543	153,775	23,475	52,925	20.8	52.9	8.1	18.2
	Urban	2001	15,220	150	922	2,508	11,640	1.0	6.1	16.5	76.5
U Dinajpur	Total	2001	173,166	38,385	90,037	13,313	31,431	22.2	52.0	7.7	18.2
	Rural	2001	165,351	38,274	89,497	12,545	25,035	23.1	54.1	7.6	15.1
	Urban	2001	7,815	111	540	768	6,396	1.4	6.9	9.8	81.8
D Dinajpur	Total	2001	132,772	22,308	64,660	12,670	33,134	16.8	48.7	9.5	25.0
	Rural	2001	125,367	22,269	64,278	10,930	27,890	17.8	51.3	8.7	22.2
	Urban	2001	7,405	39	382	1,740	5,244	0.5	5.2	23.5	70.8

Source: D-Series Migration Tables, Census of India, 1991 &amp; 2001





The consequences of economic migration from outside the district on the gender composition of the migrant workforce in Uttar Dinajpur have been striking. This is evident in the associated charts which examine the sectoral composition of the male and female migrant workforce in Uttar Dinajpur in 2001 with reference to different sources of economic migration. Comprising over 57 percent of the migrant workforce, female migrant workers outnumbered male migrant workers in the district in the ratio 1.4:1 in 2001. However, although the vast majority of male migrant workers had migrated into the district from outside Uttar Dinajpur, over 70 percent of the female migrant workers originated internally from within the district. While economic migrants from other countries comprised a third of the male migrant workforce in Uttar Dinajpur, the proportions of interstate migrants and intrastate migrants from other West Bengal districts in the male migrant workforce amounted to 14 percent and 25 percent respectively. Thus only 0.36 lakh workers out of the aggregate male migrant workforce of 1.28 lakh originated from within Uttar Dinajpur. Among women migrant workers, in sharp contrast, the proportion of intrastate migrants amounted to 15 percent, while the proportion of interstate and international migrants stood at around 7 percent in each case. Thus 1.23 lakh women workers within the female migrant workforce of 1.73 lakh originated from within Uttar Dinajpur.

While the presence of external economic migrants was stronger among migrant male cultivators, HHI workers and other non-farm workers, male internal migrants had an important presence among migrant agricultural workers. Economic migrants from other West Bengal districts and other countries comprised a significant section among male cultivators, HHI workers and non-farm workers. However among interstate migrants, the presence of male cultivators was low. The participation of women external migrants in non-agricultural activities surpassed their participation in the agricultural sector, while internal women migrants participated much more significantly in agricultural activities. With nuptiality being an important intrinsic determinant of the patterns of women's economic migration in Uttar Dinajpur, much of this migration was an internal response to external male economic migration. While the increased demand for agricultural labour, following the expansion of irrigation, had been filled in the past by the economic migration of single male workers from outside Uttar Dinajpur, a substantial section among them have subsequently resettled in the district, marrying local women. Consequently, while more women workers are now available within Uttar Dinajpur to take on agricultural labour activities alongside their spouses, this sequential process of external male migration, nuptiality and resettlement has also generated a deficit of women in the district which is now being filled up by non-work related migration of women from outside the district who marry local as well as migrant males. The growing presence of women agricultural workers has also increased the competition for work in rural areas, increasing the casual and seasonal outmigration of male workers from Uttar Dinajpur to other states and districts in search of work, which is a pattern that has also been characteristic of states like Bihar. A growing number of agricultural labour households in Uttar Dinajpur with outmigrating males remain female-headed for some part of the year. These outmigrating male workers subsequently return for a part of the year to their homes and families during the peak agricultural season when labour demands in Uttar Dinajpur are the highest.

While the number of migrant cultivators had grown considerably in the past in Uttar Dinajpur, this was accompanied by shrinkage in the size of holdings, increasing displacement and outright landlessness. Over time, this has given the agricultural workforce an increasingly footloose character, making male agricultural workers in the district highly amenable to economic pushes and pulls. Since women workers are less likely to migrate away from the district, except for nuptial reasons, women have increasingly become the mainstay of the agricultural workforce. However, increased economic migration and higher rural work participation by women has had the paradoxical result of depressing rural wages because of growing wage competition. Therefore, despite the growth of work opportunities within Uttar Dinajpur, the agricultural labour households have generally remained poor.

### Sources of Economic Migration

Of the 1.14 lakh migrant workers residing in Uttar and Dakshin Dinajpur in 1991, 1.10 lakh economic migrants had previously had homes in adjacent countries. In 2001, by which time the migrant workforce had increased to 2.94 lakh, 1.45 lakh workers had been drawn in from other countries. Economic migrants from other countries had also been strongly dominant among migrant cultivators in 1991. By 2001, their absolute number had decreased from 0.40 lakh to 0.36 lakh, while the number of cultivators migrating internally from within Uttar and Dakshin Dinajpur had increased significantly from 0.28 lakh to 0.64 lakh. Migrant agricultural labourers too were mainly drawn from within Uttar and Dakshin Dinajpur in 1991 as well as in 2001. However, their number had more than doubled from 0.55 lakh to 1.41 lakh over the period. Within the agricultural sector therefore, economic migration from other countries was driven by the relative availability of land whereas economic migration from within Uttar and Dakshin Dinajpur districts was driven by the relative availability of work. Increasing interstate migration of agricultural labourers had also been drawn in from neighbouring states between 1991-2001, although the number of cultivators originating from other states remained nearly constant over the period. Intrastate migration into Uttar and Dakshin Dinajpur from within West Bengal too had been driven initially by the availability of land, as a result of which the number of migrant cultivators drawn from other districts increased from 0.14 lakh to 0.19 lakh between 1991-2001. High economic migration from adjacent districts like Malda has however been driven more recently by the greater availability of agricultural work opportunities in Uttar Dinajpur.

**Table: Migrant Workforce in Uttar & Dakshin Dinajpur, 1991-2001  
By Place of Last Residence**

Migrant Categories	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001
	Last Home in West Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in U & D Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in Uttar Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries
TOTAL MIGRANTS												
Migrant Workers	114,243	35,702	26,117	110,640	293,518	82,443	34,411	141,999	158,904	57,038	30,548	54,794
Cultivators	28,355	14,182	5,710	39,580	63,911	19,000	5,940	36,071	36,676	14,088	5,449	14,921
Agri Labourers	54,574	8,780	8,900	22,517	140,620	26,743	10,859	31,956	79,203	17,297	10,156	12,695
HHI Workers	4,704	660	600	5,007	17,881	5,098	1,414	10,886	9,899	3,277	1,087	2,558
Other Workers	26,610	12,080	10,907	43,536	71,106	31,602	16,198	63,086	33,126	22,376	13,856	24,620

**Table: Migrant Workforce in Uttar & Dakshin Dinajpur, 1991-2001  
By Place of Last Residence**

Contd.

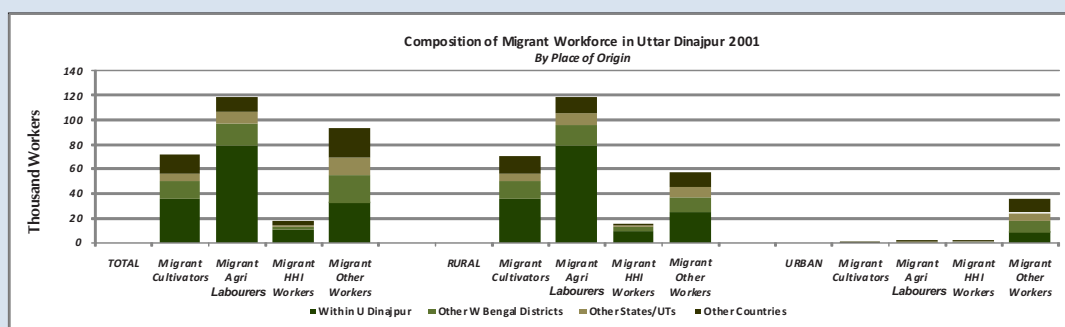
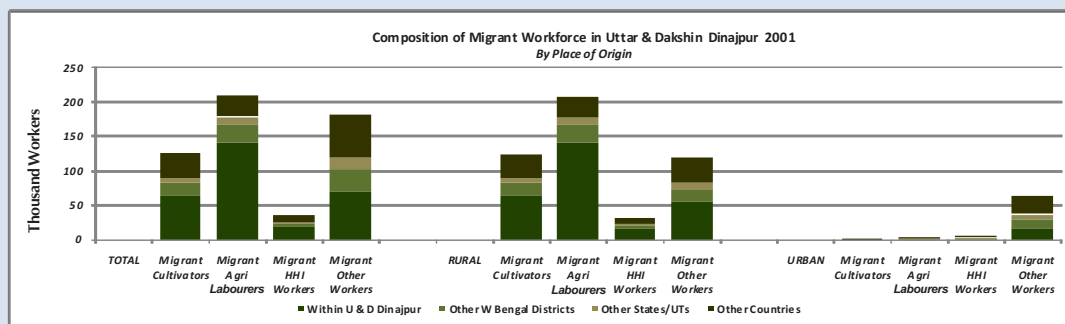
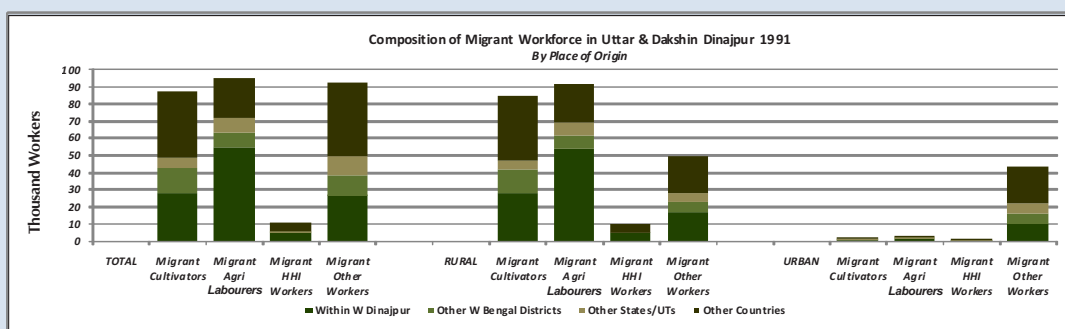
Migrant Categories	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001
	Last Home in West Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in U & D Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in Uttar Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries
<b>RURAL MIGRANTS</b>												
Migrant Workers	101,949	29,020	19,210	85,481	275,083	68,187	27,019	112,495	149,089	47,264	24,207	41,239
Cultivators	27,705	13,980	5,420	37,960	63,596	18,904	5,881	35,579	36,487	14,017	5,396	14,621
Agri Labourers	53,467	8,460	7,890	21,660	139,702	26,513	10,728	31,296	78,667	17,132	10,026	12,258
HHI Workers	4,347	580	470	4,020	16,695	4,570	1,170	8,540	9,605	3,015	885	1,930
Other Workers	16,430	6,000	5,430	21,841	55,090	18,200	9,240	37,080	24,330	13,100	7,900	12,430
<b>URBAN MIGRANTS</b>												
Migrant Workers	12,294	6,682	6,907	25,159	18,435	14,256	7,392	29,504	9,815	9,774	6,341	13,555
Cultivators	650	202	290	1,620	315	96	59	492	189	71	53	300
Agri Labourers	1,107	320	1,010	857	918	230	131	660	536	165	130	437
HHI Workers	357	80	130	987	1,186	528	244	2,346	294	262	202	628
Other Workers	10,180	6,080	5,477	21,695	16,016	13,402	6,958	26,006	8,796	9,276	5,956	12,190

Source: D-Series Migration Tables, Census of India, 1991 & 2001

In 1991, the aggregate migrant workforce of 2.87 lakh workers in Uttar and Dakshin Dinajpur had been composed largely of 1.11 lakh (39%) workers who had migrated recently from other countries and 1.14 lakh (40%) workers who had migrated internally within the undivided district. While the migrant workforce had almost doubled to 5.52 lakh by 2001, most of this originated from increasing internal migration rather than from external sources. The proportionate share of internal migrants in the aggregate migrant workforce of the two districts consequently rose from 40 percent to 53 percent between 1991-2001, while the share of migrant workers from other countries declined from 39 percent to 26 percent. Intrastate migration from other West Bengal districts was the other important constituent of the migrant workforce, accounting for a share of 13 percent in 1991. By 2001, its constituent share had risen to 16 percent, while the share of interstate migrant workers had declined from 9 percent to 6 percent.

Nearly half the 0.88 lakh migrant cultivators in Uttar and Dakshin Dinajpur in 1991 had migrated into the region from other countries. However by 2001, their share had declined in both absolute and relative terms to 29 percent. The relative decline in migrant cultivators from other West Bengal districts was more moderate, while their absolute number increased marginally from 0.14 lakh to 0.19 lakh between 1991-2001. Internal migration thus accounted for a growing share of migrant cultivators as well as migrant agricultural labourers in 2001, while most of the new interstate migrants as well as the new intrastate migrants from the other West Bengal districts had come in either as agricultural labourers, HHI workers or other non-farm workers. External migration into Uttar and Dakshin Dinajpur evidently had an economic character and was driven by the economic pull generated by greater work availability in these districts. A

significant proportion of the economic migrants who had come in from other countries were attracted into non-agricultural work in both rural and urban Uttar and Dakshin Dinajpur. Uttar Dinajpur district on its own however attracted more economic migration from other West Bengal districts and other states, while Dakshin Dinajpur attracted a much larger share of migrant workers from other countries. Internal economic migration from Dakshin Dinajpur to Uttar Dinajpur accordingly included a sizeable volume of step migration, where migrant workers from outside the country who had originally entered and resettled in Dakshin Dinajpur moved subsequently into Uttar Dinajpur because of rising labour demand and the attraction of land and better work availability. External migrants in rural Uttar Dinajpur in 2001 thus comprised a fifth of the combined rural migrant workforce in Uttar and Dakshin Dinajpur. Rural Uttar Dinajpur however accounted for over 27 percent of the migrant cultivators in the two districts. Similarly, while urban external migrants in Uttar Dinajpur accounted for 5 percent of the combined urban workforce, urban Uttar Dinajpur accounted for over 15 percent of the migrant non-farm workers in the two districts, because of the stronger economic pull exerted by Uttar Dinajpur.



In 1991, male migrants from other countries had comprised more than a third of the combined migrant workforce of 2.87 lakh workers in Uttar and Dakshin Dinajpur, while women migrants from within Uttar and Dakshin Dinajpur had comprised nearly 20 percent of migrant women workers in the two districts. Migrant males from other countries comprised 43 percent of the migrant cultivators and migrant non-farm workers in the two districts, besides accounting for a third of the migrant HHI workers in Uttar and Dakshin Dinajpur. Thus the only occupations where women migrants from within Uttar and Dakshin Dinajpur participated prominently in 1991 were agricultural labour and household industry, where such migrant women composed around a third of the migrant workers engaged in the respective activity. By 2001, migrant work-patterns had undergone a substantial change. Women internal migrants now accounted for 40 percent of the combined migrant workforce in Uttar and Dakshin Dinajpur, and accounted for well over a third of the migrant cultivators, nearly 57 percent of migrant agricultural labour, and 45 percent of the migrant HHI workforce, leaving non-farm work and cultivation as the only occupational sectors where male migrants from other countries still had significant presence. While the proportionate importance of male interstate migrants had declined in all occupational spheres, male intrastate migrants from other West Bengal districts increased their share of the migrant non-farm workforce largely at the expense of male migrants from other countries.

In Uttar Dinajpur district after bifurcation, women migrants from within the district accounted for two-fifths of the migrant workforce and 41 percent of the migrant cultivators, while their proportionate share in the migrant agricultural labourforce and the HHI workforce surpassed 50 percent. Within the male migrant workforce however, migrants from other countries still outnumbered other male migrants, and were mainly engaged either in cultivation or in other non-farm work. Male migrant workers also dominated the urban workforce where male migrants from other countries still accounted for nearly a third of the migrant workforce because of their high participation in non-farm occupations.

**Table: Gender Distribution of Migrant Work-force in Uttar & Dakshin Dinajpur, 1991-2001  
By Place of Origin**

	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001
	Last Home in West Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in U & D Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in Uttar Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries
<b>TOTAL MALE MIGRANTS</b>												
Migrant Workers	57,672	29,770	21,215	98,787	74,759	42,346	20,357	108,971	36,123	31,830	17,596	42,569
Cultivators	17,380	13,310	5,060	37,840	17,789	11,526	3,299	31,615	7,792	9,290	2,939	12,728
Agri Labourers	19,530	6,030	5,990	17,377	21,699	8,975	4,164	20,643	11,065	6,749	3,848	7,652
HHI Workers	1,132	400	380	3,597	2,101	981	527	5,687	919	701	367	1,521
Other Workers	19,630	10,030	9,785	39,973	33,170	20,864	12,367	51,026	16,347	15,090	10,442	20,668
<b>RURAL MALE MIGRANTS</b>												
Migrant Workers	47,982	23,930	15,010	75,721	61,710	31,675	14,221	84,460	28,808	24,307	12,366	30,967
Cultivators	16,790	13,110	4,820	36,270	17,548	11,454	3,260	31,155	7,658	9,239	2,905	12,445



**Table: Gender Distribution of Migrant Work-force in Uttar & Dakshin Dinajpur, 1991-2001  
By Place of Origin**

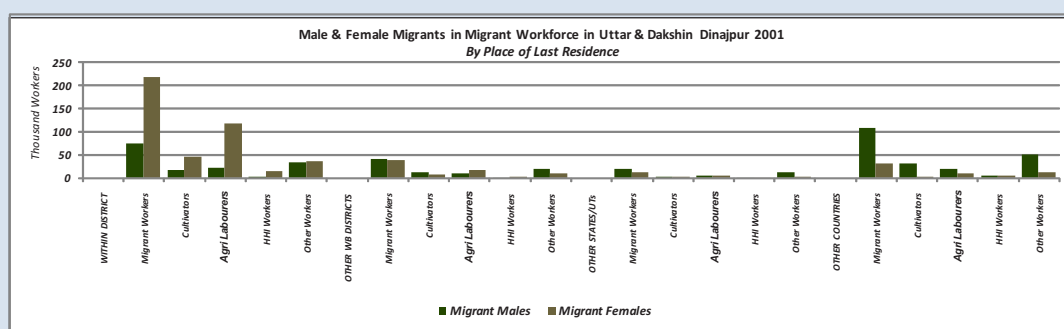
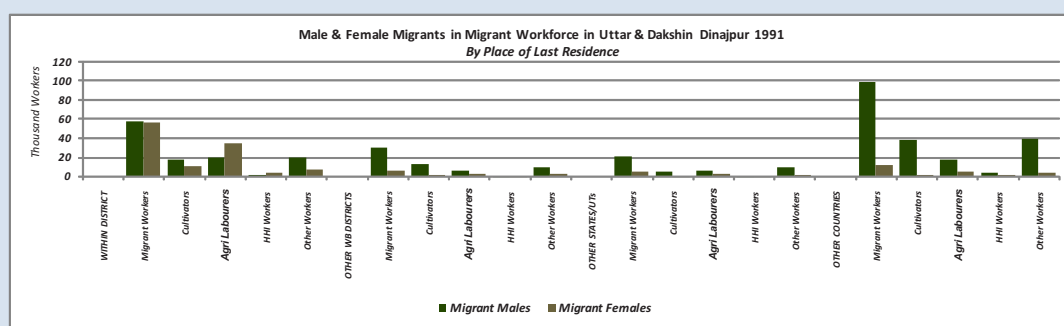
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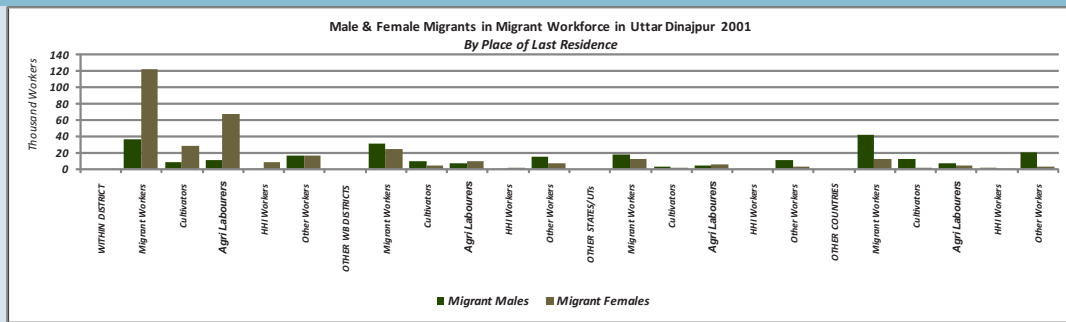
	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	West Dinajpur 1991	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	U & D Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001	Uttar Dinajpur 2001
	Last Home in West Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in U & D Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries	Last Home in Uttar Dinajpur	Last Home in Other WB Districts	Last Home in Other States/UTs	Last Home in Other Countries
Agri Labourers	18,830	5,780	5,100	16,640	21,317	8,876	4,101	20,170	10,790	6,673	3,786	7,337
HHI Workers	1,022	350	260	2,900	1,745	845	425	4,485	815	625	285	1,165
Other Workers	11,340	4,690	4,830	19,911	21,100	10,500	6,435	28,650	9,545	7,770	5,390	10,020
URBAN MALE MIGRANTS												
Migrant Workers	9,690	5,840	6,205	23,066	13,049	10,671	6,136	24,511	7,315	7,523	5,230	11,602
Cultivators	590	200	240	1,570	241	72	39	460	134	51	34	283
Agri Labourers	700	250	890	737	382	99	63	473	275	76	62	315
HHI Workers	110	50	120	697	356	136	102	1,202	104	76	82	356
Other Workers	8,290	5,340	4,955	20,062	12,070	10,364	5,932	22,376	6,802	7,320	5,052	10,648
TOTAL FEMALE MIGRANTS												
Migrant Workers	56,571	5,932	4,902	11,853	218,759	40,097	14,054	33,028	122,781	25,208	12,952	12,225
Cultivators	10,975	872	650	1,740	46,122	7,474	2,641	4,456	28,884	4,798	2,510	2,193
Agri Labourers	35,044	2,750	2,910	5,140	118,921	17,768	6,695	11,313	68,138	10,548	6,308	5,043
HHI Workers	3,572	260	220	1,410	15,780	4,117	887	5,199	8,980	2,576	720	1,037
Other Workers	6,980	2,050	1,122	3,563	37,936	10,738	3,831	12,060	16,779	7,286	3,414	3,952
RURAL FEMALE MIGRANTS												
Migrant Workers	53,967	5,090	4,200	9,760	213,373	36,512	12,798	28,035	120,281	22,957	11,841	10,272
Cultivators	10,915	870	600	1,690	46,048	7,450	2,621	4,424	28,829	4,778	2,491	2,176
Agri Labourers	34,637	2,680	2,790	5,020	118,385	17,637	6,627	11,126	67,877	10,459	6,240	4,921
HHI Workers	3,325	230	210	1,120	14,950	3,725	745	4,055	8,790	2,390	600	765
Other Workers	5,090	1,310	600	1,930	33,990	7,700	2,805	8,430	14,785	5,330	2,510	2,410
URBAN FEMALE MIGRANTS												
Migrant Workers	2,604	842	702	2,093	5,386	3,585	1,256	4,993	2,500	2,251	1,111	1,953
Cultivators	60	2	50	50	74	24	20	32	55	20	19	17
Agri Labourers	407	70	120	120	536	131	68	187	261	89	68	122
HHI Workers	247	30	10	290	830	392	142	1,144	190	186	120	272
Other Workers	1,890	740	522	1,633	3,946	3,038	1,026	3,630	1,994	1,956	904	1,542

Source: D-Series Migration Tables, Census of India, 1991 &amp; 2001

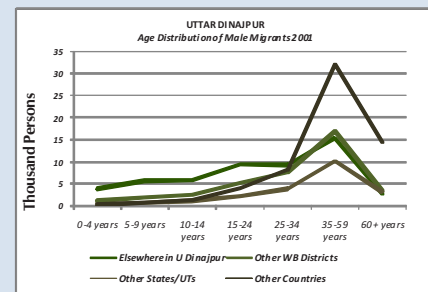
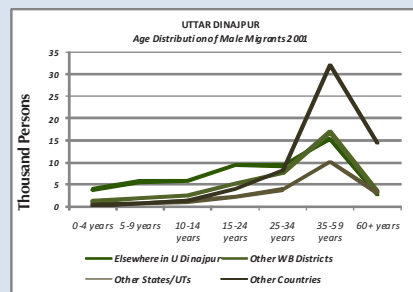
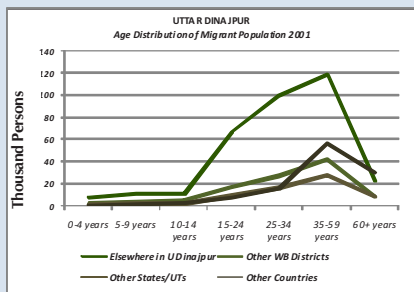
The occupational patterns described are easily evident in the associated charts. In 1991, the aggregate workforce in Uttar and Dakshin Dinajpur stood at 10.79 lakh, with 2.87 lakh (27%) comprising migrant workers who were mostly drawn either from within Uttar and Dakshin Dinajpur (40%) or from other countries (39%). While the aggregate workforce in Uttar and Dakshin Dinajpur rose to 15.48 lakh in 2001, the combined migrant workforce in the two districts rose to 5.52 lakh (36%). Since lifetime migration from other countries to Uttar and Dakshin Dinajpur rose from 2.49 lakh to 2.71 lakh over the same period, the additional labour demands of the region had to be met by net intrastate migration from the other districts of West Bengal and from internal migration within the region. While the aggregate male workforce in Uttar and Dakshin Dinajpur rose from 8.83 lakh to 10.82 lakh between 1991-2001, the aggregate female workforce rose much more substantially from 1.96 lakh to 4.66 lakh. Internal migration of women workers associated with their nuptial status and the consequent change in their place of residence became the primary means for meeting the increasing labour demand, leading to higher work participation among women in the region.

Till 1991, nearly 95 percent of the combined workforce in Uttar and Dakshin Dinajpur had comprised main workers, with only 0.56 lakh workers engaged in marginal work, nearly 88 percent of whom were women. With male workers comprising well over four-fifths of the main workforce of 10.23 lakh, main work participation rates among males were much higher in Uttar and Dakshin Dinajpur than in adjoining districts, resulting in substantial economic migration of male workers into the two districts because significantly better work availability. Between 1991-2001, the situation significantly changed, with the main workforce increasing from 10.23 lakh to 1.88 lakh, while the marginal workforce rose from 0.56 lakh to 3.61 lakh. Most of the new work opportunities created in the two districts over the period were therefore of a marginal nature, which offered little incentive for fresh male migration from outside the region. In Uttar Dinajpur, where the total workforce rose from 6.50 lakh to 9.36 lakh between 1991-2001, the marginal workforce rose from 0.36 lakh to 2.19 lakh. While economic forces that had drawn in increasing external migration of males in the past progressively weakened, more and more women had left the portals of their nuptial homes to enter the marginal work-force.





The changing structure of the aggregate workforce in Uttar and Dakshin Dinajpur districts is consistent with the changing migration patterns seen in the charts. Male migration from outside the region has slackened, encouraging the work participation and internal migration of women workers. However, this changed work situation is hardly satisfactory and is leading progressively to the seasonal or casual outward migration of male workers from Uttar Dinajpur, as seen elsewhere in this report. Step migration of males to other states and cities outside Uttar Dinajpur is the inevitable result, as Uttar Dinajpur gradually switches from being a net recipient of migration to becoming a net exporter of population to the rest of the state and the country. The long term solution obviously lies in expanding and diversifying livelihood opportunities in Uttar Dinajpur.



### Age Profiles of Migrants

Life-time migration into Uttar Dinajpur has evidently been driven by political push factors, economic pull factors as well as locational advantages, all of which have combined to make the district a prime destination for successive waves of international, interstate and intrastate migration since 1947. However, since the resulting migrant streams have not entered the district simultaneously, each form of migration has taken precedence over the others at given points of time. The age distributions of lifetime migrants in Uttar Dinajpur offer an important means for tracking this migration history while identifying the characteristic age profiles of each migrant group. Male migrants in the age-group 35-59 years formed the dominant age cluster among male migrants in 2001, comprising 43 percent of all male lifetime migrants in Uttar Dinajpur. With 57 percent of the migrants being over 35 years in age, the age profile for male migrants was heavily skewed towards the senior age-groups. Among women migrants too, the age-group 35-59 years formed the modal age cluster, accounting for over 38 percent of all women migrants in Uttar Dinajpur. However with only 10 percent of the women migrants being over 60 years in age, the age profile for women migrants was less skewed. Given the prevalent rural practice of early marriage, women in the marriageable age cluster of 15-34 years comprised 47 percent of the women migrants, clearly establishing that the migration of women in Uttar Dinajpur is more recent and is closely related to nuptiality. Male migration, on the other hand, had been stronger in the past and has weakened more recently, since the age cluster 15-34 years where single male migration usually occurs comprised less than 29 percent of all male migrants.

International migration has been the dominant source for male lifetime migration in Uttar Dinajpur, while female nuptial migrants have generally been sourced through internal migration within the district. Since more than three-fourths of the male international migrants were aged over 35 years, male international migration in Uttar Dinajpur was old rather than recent. Conversely, with two-thirds of the female internal migrants being aged below 35 years, increased female internal migration in Uttar Dinajpur in recent years has occurred at least partially in response to the past migration of single males. Although smaller in absolute volume, the flow of male interstate and interdistrict migration into Uttar Dinajpur has continued in recent years, with 16 percent of the male interdistrict migrants and 14 percent of the interstate migrants falling in the age-group 15-24 years. Internal migration of younger males has also risen in recent years, with males in the age cluster 15-35 years comprising nearly 30 percent of all male migrants. Since internal, intrastate and interstate migration of males occurs in direct response to economic pull factors such as high labour demand, it becomes obvious that the current wave of internal and intrastate male migration into Uttar Dinajpur has gradually shut the door to increased economic migration of males from other states and countries.

The relatively balanced proportions of younger migrants in the age cluster 0-14 years within the stream of internal migrants obviously indicates that internal migration within Uttar Dinajpur is often likely to involve the relocation of families, while in the case of intrastate and interstate migration, the relocation of families has been comparatively rare. International migration, which has declined in recent years, had also involved the relocation of families. Women migrants from other states and districts greatly outnumber male migrants from these places in the age cluster 15-34 years, indicating that the net migration of women of marriageable age into Uttar Dinajpur from places outside the district occurs in response to the marriage demands of local as well as migrant males. This excess migration of women has been an important factor in reducing the masculinity of the district population in Uttar Dinajpur and improving the female-male ratio [FMR] from 921 per 1000 males in 1991 to 938 per 1000 males in 2001.

Urban areas in Uttar Dinajpur had received a sizeable amount of family migration from other countries in the past, and still receive a significant amount of migration from other states and other West Bengal districts. Internal migration into these urban areas from the rural areas of Uttar Dinajpur however is relatively recent, and its numerical magnitude is still low compared to intrastate migration from within West Bengal. Excess female migration is relatively strong among intrastate urban migrants from other West Bengal districts, and is also present among interstate urban migrants. Since the main factor driving excess female migration into Uttar Dinajpur is nuptial demand, this indicates that single males who had migrated into urban areas in Uttar Dinajpur from external locations in the past have generally preferred to bring in brides from outside the district. Given the mixed cultural complexion of the district, religion and community differences have played an important part in this, also strengthening the kinship chains that support external migration.

**Table: Age Distribution of Resident Migrants in Uttar Dinajpur, 2001  
By Place of Birth**

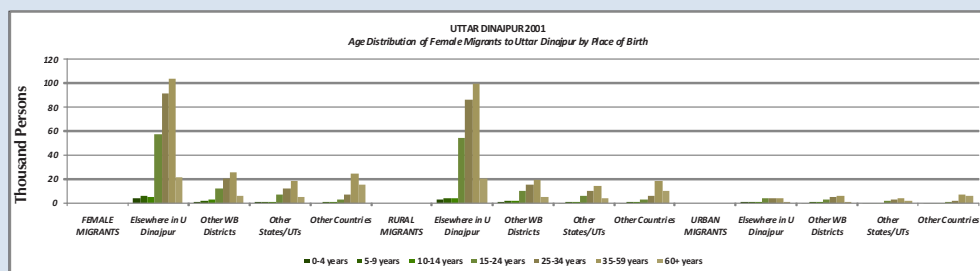
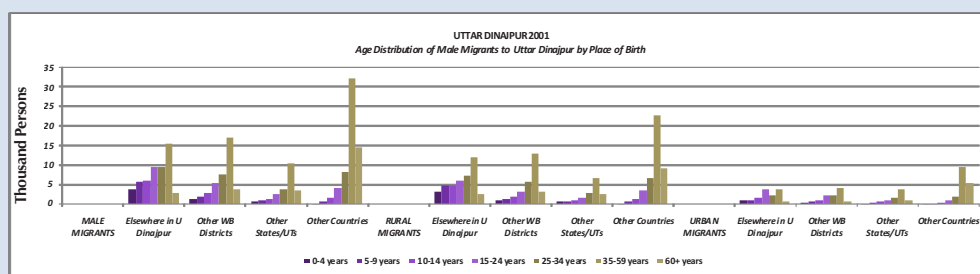
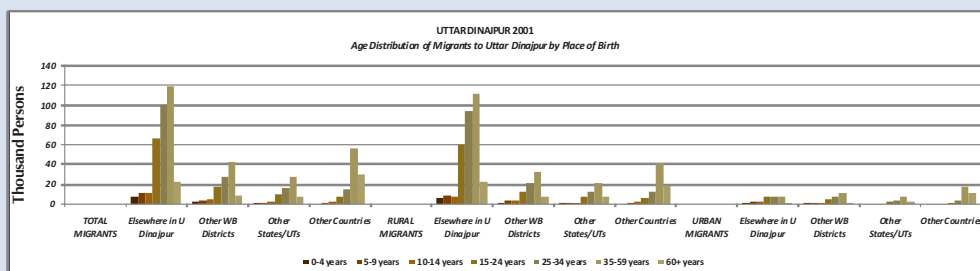
	Migrants from Within District	Migrants from Other WB Districts	Migrants from Other States /UTs	Migrants from Other Countries	Male Migrants from Within District	Male Migrants from Other WB Districts	Male Migrants from Other States /UTs	Male Migrants from Other Countries	Female Migrants from Within District	Female Migrants from Other WB Districts	Female Migrants from Other States /UTs	Female Migrants from Other Countries
<i>RURAL MIGRANTS</i>												
All Age-groups	310,816	80,400	49,878	81,271	39,553	28,240	14,774	43,606	271,263	52,160	35,104	37,665
0-4yrs	6,197	1,476	764	246	3,125	803	391	118	3,072	673	373	128
5-9yrs	8,922	2,609	1,135	933	4,682	1,344	610	451	4,240	1,265	525	482
10-14yrs	8,223	3,248	1,377	2,222	4,501	1,677	775	1,147	3,722	1,571	602	1,075
15-24yrs	59,692	12,689	7,065	5,967	5,884	3,029	1,405	3,434	53,808	9,660	5,660	2,533
25-34yrs	94,252	20,539	12,700	12,423	7,208	5,466	2,501	6,507	87,044	15,073	10,199	5,916
35-59yrs	111,429	32,334	20,746	40,581	11,864	12,848	6,758	22,786	99,565	19,486	13,988	17,795
60+ yrs	22,101	7,505	6,091	18,899	2,289	3,073	2,334	9,163	19,812	4,432	3,757	9,736
<i>URBAN MIGRANTS</i>												
All Age-groups	27,450	26,699	16,110	32,170	12,814	10,505	7,531	17,444	14,636	16,194	8,579	14,726
0-4yrs	1,334	629	257	66	713	327	130	28	621	302	127	38
5-9yrs	1,924	1,050	430	170	1,037	551	230	87	887	499	200	83
10-14yrs	2,594	1,485	661	349	1,398	803	373	187	1,196	682	288	162
15-24yrs	6,895	4,762	2,219	1,219	3,643	2,144	976	692	3,252	2,618	1,243	527
25-34yrs	6,196	7,163	3,588	2,973	2,144	2,148	1,343	1,701	4,052	5,015	2,245	1,272
35-59yrs	7,674	10,556	7,136	16,598	3,516	4,113	3,530	9,478	4,158	6,443	3,606	7,120
60+ yrs	833	1,054	1,819	10,795	363	419	949	5,271	470	635	870	5,524

Source: D-Series Migration Tables, Census of India, 2001

The insights from age-profiling of the migrants presently residing in Uttar Dinajpur clearly confirm that migration into the district has been driven largely by economic considerations and that the source of migration has been determined by the strength of each successive migratory wave. Migration and resettlement from adjacent countries into Uttar Dinajpur is older and occurred in circumstances when land availability and the availability of main work in the district were relatively high, affording the migrants the opportunity to purchase property and agricultural land and reestablish themselves in their new country. With rising land prices and declining land availability, the incentive for international migrants to resettle permanently in Uttar Dinajpur has progressively lessened although the district remains a gateway for the successive step migration of new arrivals into other parts of West Bengal and India. The fall in international migration was however succeeded by increased interstate and interdistrict migration as new migrants were drawn to Uttar Dinajpur by the ready availability of wage-work both in rural and urban areas. So long as these work

opportunities allowed the new migrants to engage in main work, or alternatively to acquire agricultural land on tenancy terms in rural areas, male interstate and interdistrict migration and resettlement in Uttar Dinajpur continued to remain strong. More recently, after rural main work opportunities have become saturated and only marginal work opportunities are still available, male migrant labour from external sources has been substituted by the labour of internal migrants, with women taking a growing part in economic activities.

Although both Uttar Dinajpur and Dakshin Dinajpur have absorbed strong flows of economic migration following multiple partitions of the original district of Dinajpur after 1947, several intrinsic differences exist between the nature and sources of migration received in each district, which become visible from the segregated migration data for 2001. Uttar Dinajpur has thus absorbed 89 percent of the interstate migrant workers received in Uttar and Dakshin Dinajpur as a whole till 2001, as well as 69 percent of the intrastate migrant workers and 54 percent of the internal economic migrants within the Uttar and Dakshin Dinajpur regions. Dakshin Dinajpur has absorbed nearly 60 percent of the international migrants, and around 46 percent of the internal economic migrants, while receiving much lower amounts of interstate and intrastate migration. Uttar Dinajpur has received higher proportions of interstate and intrastate male economic migrants compared to its share of female migrants from each source. Therefore, single male migration has been more characteristic of Uttar Dinajpur while family migration flows have been more characteristic in Dakshin Dinajpur. Relative differences in work availability between Dakshin Dinajpur and Uttar Dinajpur have also produced net migration from the former district to the latter. Some of these flows also represent the step migration of poorer rural migrants who had entered Dakshin Dinajpur from across the international border and have now chosen to relocate and resettle within Uttar Dinajpur as interdistrict migrants.



## Major Immigration Streams

Immigration inflows have contributed significantly to high rates of population growth experienced within Uttar and Dakshin Dinajpur over the post-1971 period. The migration streams from different sources have, however, undergone periodic ebbs and flows as a result of the changing intensity of pull factors. While the combined population of the two districts has risen more than 112 percent from 18.60 lakh to 39.45 lakh over the 30-year period between 1971-2001, the share of migrants has gradually fallen from around 31 percent in 1971 to 28.7 percent in 2001. Meanwhile, since the share of internal migrants has also risen from 14 percent to 15.8 percent over the period, external migration inflows into the region have experienced an overall decline. From peak levels exceeding 17 percent in 1971 and 1981, the share of external migrants in the combined regional population has thus fallen to 12.9 percent in 2001.

However, the decline in the constituent inflows has not been steady. Forming the dominant source for external migration, migration inflows from other countries rose in absolute terms between 1971-1981, underwent an absolute decline between 1981-1991, and have risen again over the subsequent decade. Interstate migration from other states has also experienced alternating increases and declines while rising to the longterm peak of 0.74 lakh in 2001. Intra-state inflows have followed a similar course, with an initial spurt between 1971-1981, a slackening between 1981-1991 and then a strong spurt between 1991-2001. As a result, intrastate migration has been the only external source whose proportionate share in the regional population has risen in 2001 compared to 1971. External migration into the Uttar and Dakshin Dinajpur region has brought in people from diverse cultural, religious and linguistic backgrounds, giving the regional population a distinctively multicultural character. Internal migration has redistributed these communities across the region, giving different parts of Uttar and Dakshin Dinajpur a specific cultural identity. Concentrations of post-Partition migrants, of Muslim, Rajbanshi and Adivasi communities, and of Hindi and Urdu speakers, etc., can thus be found within specific areas, which owe as much to initial external migrations as they do to subsequent internal relocation and resettlement within Uttar Dinajpur and Dakshin Dinajpur districts. Longterm economic migration has clearly had a profound impact on the cultural and demographic landscape of the Uttar and Dakshin Dinajpur region.

**Table: Longterm Migration & Demographic Change in Uttar & Dakshin Dinajpur, 1971-2001  
By Place of Birth**

<i>Population Segments</i>	<b>West Dinajpur 1971</b>	<b>West Dinajpur 1981</b>	<b>West Dinajpur 1991</b>	<b>U &amp; D Dinajpur 2001</b>	<b>% Shares 1971</b>	<b>% Shares 1981</b>	<b>% Shares 1991</b>	<b>% Shares 2001</b>
<b>Combined Population</b>	<b>18,59,887</b>	<b>24,04,949</b>	<b>31,25,613</b>	<b>39,44,972</b>				
Non-Migrants	12,80,297	16,52,091	22,93,531	28,13,079	68.8	68.7	73.4	71.3
Internal Migrants	2,59,753	3,34,919	4,30,218	6,25,058	14.0	13.9	13.8	15.8
Migrants from Other WB Districts	45,692	87,630	86,552	1,61,390	2.5	3.6	2.8	4.1
Migrants from Other States/UTs	71,143	73,075	66,635	73,961	3.8	3.0	2.1	1.9
Migrants from Other Countries	2,03,002	2,57,234	2,48,677	2,71,484	10.9	10.7	8.0	6.9
<b>Combined Male Population</b>	<b>9,67,937</b>	<b>12,41,612</b>	<b>16,20,360</b>	<b>20,30,072</b>				
Non-Migrants	7,36,670	9,65,106	13,53,215	16,99,694	76.1	77.7	83.5	83.7
Internal Migrants	67,928	66,998	73,646	1,07,496	7.0	5.4	4.5	5.3
Migrants from Other WB Districts	19,527	39,720	34,040	52,012	2.0	3.2	2.1	2.6

**Table: Longterm Migration & Demographic Change in Uttar & Dakshin Dinajpur, 1971-2001  
By Place of Birth**

Contd.

<i>Population Segments</i>	West Dinajpur 1971	West Dinajpur 1981	West Dinajpur 1991	U & D Dinajpur 2001	% Shares 1971	% Shares 1981	% Shares 1991	% Shares 2001
Migrants from Other States/UTs	38,253	32,947	26,765	26,041	4.0	2.7	1.7	1.3
Migrants from Other Countries	1,05,559	1,36,841	1,32,694	1,44,829	10.9	11.0	8.2	7.1
<b>Combined Female Population</b>	<b>8,91,950</b>	<b>11,63,337</b>	<b>15,05,253</b>	<b>19,14,900</b>				
Non-Migrants	5,43,627	6,86,985	9,40,316	11,13,385	60.9	59.1	62.5	58.1
Internal Migrants	1,91,825	2,67,921	3,56,572	5,17,562	21.5	23.0	23.7	27.0
Migrants from Other WB Districts	26,165	47,910	52,512	1,09,378	2.9	4.1	3.5	5.7
Migrants from Other States/UTs	32,890	40,128	39,870	47,920	3.7	3.4	2.6	2.5
Migrants from Other Countries	97,443	1,20,393	1,15,983	1,26,655	10.9	10.3	7.7	6.6

Source: D-Series Migration Tables, Census of India 1971, 1981, 1991 & 2001

While the share of male migrants in the regional population of Uttar and Dakshin Dinajpur has waned from nearly 24 percent in 1971 to 16 percent in 2001, the share of women lifetime migrants has risen and fallen alternately to grow from 39 percent in 1971 to 42 percent in 2001. Although the number of migrant males has consistently exceeded the number of female migrants, the trends in external migration of males and females from other countries have remained relatively close, indicating that the migration of families as well as excess migration of single males are characteristic of longterm international migration. Interstate inflow of women has generally surpassed the inflow of men from other states and has not declined to the same proportionate extent as the latter between 1971-2001, implying there has been net importation of women to meet nuptial demands from single men who had resettled in Uttar and Dakshin Dinajpur sometime previously. In case of intrastate migration from within West Bengal, the inflow of male and female migrants has risen steadily, accompanying excess inflows of women particularly during 1991-2001. Nuptial migration thus appears to have been the principal reason for the net importation of women from other West Bengal districts, and has also been accompanied by the resettlement of entire migrant families in the Uttar and Dakshin Dinajpur region. Female internal migration within Uttar and Dakshin Dinajpur - obviously a direct result of nuptial migration - is by far the largest single source of migrants within the regional population. With the decline in main work opportunities and the proliferation of marginal work in the region, this has also been the principal source for rising women's work participation.

Although the major inflows of internal and external migration into Uttar and Dakshin Dinajpur are defined above in generic terms, their principal sources can also be identified in terms of the specific districts and states and countries that they originate from. The main external inflow into the region in the past had comprised the resettlement of Partition migrants from East Pakistan. Even after the end of Partition migration in 1971, this inflow has continued in the form of undocumented migration from Bangladesh, after a short lull between 1981-1991 when the absolute number of international migrants had lessened. Coming next as a source of international migration, Nepal stands a distant second in comparison to Bangladesh, which was the point of origin for 97 percent of the international migrants living in Uttar and Dakshin Dinajpur in 1971 and over 99 percent in 2001. The principal source for interstate migration into the region has been the contiguous province of Bihar which has been bifurcated between the two states of Bihar and Jharkhand since November 2000. Together with Jharkhand, Bihar had thus contributed 87 percent of the interstate migrants living in Uttar and Dakshin Dinajpur in 1971 and 86 percent in 2001. Political displacement from Assam into Uttar Dinajpur has increased after political movements against undocumented migration in that state, but has accompanied the resettlement of Adivasi workers from tea regions in Assam after the



proliferation of small tea plantations in the Chopra region of Uttar Dinajpur. The state of Uttar Pradesh (divided between UP & Uttarakhand since November 2000) had formerly ranked second as a source of interstate migration in 1971. With the decline in its absolute and relative share in interstate migration, Assam has now ascended into the second-ranked position.

**Table: Principal Sources of Life-time Migration into Uttar & Dakshin Dinajpur, 1971-2001  
By Place of Birth**

Migration Source	West Dinajpur 1971	West Dinajpur 1981	West Dinajpur 1991	U & D Dinajpur 2001
<i>International Migrants</i>	203,002	257,234	248,677	271,484
Bangladesh/erstwhile E Pakistan & W Pakistan	197,266	256,362	247,577	270,513
Nepal	860	692	750	901
Other Countries	4,876	180	2,390	63
<i>Inter-state Migrants</i>	71,143	73,075	66,635	73,961
Bihar & Jharkhand	62,012	63,921	59,227	63,598
Assam	1,455	3,148	3,140	4,025
UP & Uttarakhand	3,756	2,790	1,518	2,371
Rajasthan	1,590	1,523	960	1,373
Other States/UTs	2,330	1,679	1,780	2,594
<i>Inter-district Migrants*</i>	45,692	87,630	86,552	113,950**
Malda	-	-	48,410	62,684
Murshidabad	-	-	8,040	8,242
Other North Bengal Districts	-	-	12,630	19,864
Other South Bengal Districts	-	-	17,282	15,888
<i>Intra-district Migrants</i>	259,753	334,919	430,218	625,058
Elsewhere within U & D Dinajpur	259,753	334,919	430,218	577,618
From Dakshin Dinajpur to Uttar Dinajpur & vice-versa	-	-	-	47,440

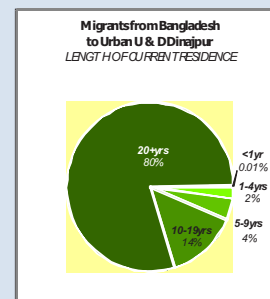
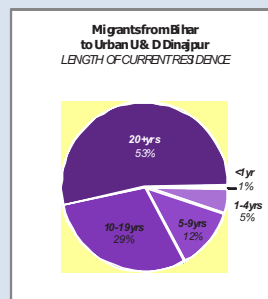
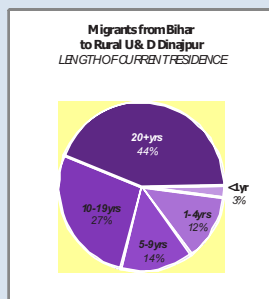
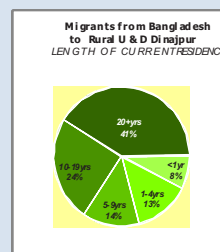
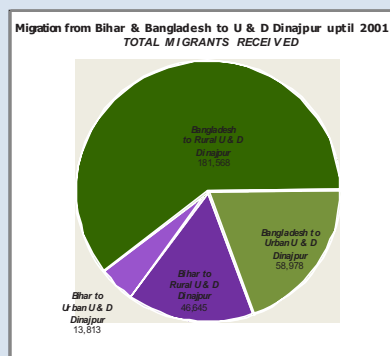
\*Detailed Interdistrict tables not released in 1971 & 1981; \*\* Total as in Table D-11, Census 2001

Source: D-Series Migration Tables, Census of India, 1971-2001

Inter-district migration into Uttar and Dakshin Dinajpur has been sourced mainly from the adjacent district of Malda, which accounted for 56 percent of the inter-district migrants settled within the region in 1991 and 55 percent in 2001. While the inflow of inter-district migrants from Malda rose considerably over the decade in absolute terms, the increase in migration from Murshidabad which came in as distant second was distinctly slow. The fall in the relative share of Malda in the inter-district migrant population resulted because of rising nuptial migration from other North Bengal districts like Darjeeling and Jalpaiguri which has also been strong enough to offset the absolute decline in inter-district migration from the South Bengal districts. However, as observed earlier, the main migration stream in the Uttar and Dakshin Dinajpur region comprises internal migration within the districts of Uttar Dinajpur and Dakshin Dinajpur, which has risen steadily from 2.60 lakh to 6.25 lakh between 1971-200. Till the bifurcation of West Dinajpur in

1991, the cross-flows of migration between Uttar Dinajpur and Dakshin Dinajpur had remained invisible. The segregated data available for 2001 reveal that internal migration from Uttar Dinajpur to Dakshin Dinajpur and vice-versa amounts to around 8 percent of the total volume of internal migration, while 92 percent of the intradistrict movements have occurred within the respective territories of Uttar Dinajpur and Dakshin Dinajpur districts. Uttar Dinajpur has accounted for a greater proportion of the internal movements, with 3.38 lakh persons shifting location within the district. The volume of internal migration within Dakshin Dinajpur was much smaller at 2.87 lakh persons. Of the 0.47 lakh persons who shifted residence from one district to the other, 0.21 lakh shifted from Uttar Dinajpur to Dakshin Dinajpur. The shift from Dakshin Dinajpur to Uttar Dinajpur was greater at 0.27 lakh persons, implying net migration of another 0.06 lakh persons into Uttar Dinajpur.

With Bangladesh and the state of Bihar therefore contributing the principal inflows of external migration into Uttar and Dakshin Dinajpur, a close look at the patterns of migration and resettlement from these two source regions helps in identifying the extended impact of these principal migration streams on the district of Uttar Dinajpur. When classified by the duration of current residence, intercensal migration data from the 2001 Census also reveal the historical character of external migration from Bangladesh and Bihar into Uttar and Dakshin Dinajpur. Thus till 2001, Bangladesh had contributed 2.41 lakh migrants to Uttar and Dakshin Dinajpur, 1.82 lakh (76%) of whom had resettled in rural areas, while 0.59 lakh (24%) had moved into urban areas. Urban resettlement of migrants who had moved in from areas now under Bangladesh was generally older, with 80 percent of the migrants who provided information on when they had resettled in urban Uttar and Dakshin Dinajpur having left Bangladesh before 1981. Migrants who had left Bangladesh between 1981-1991 and had been residing in urban Uttar and Dakshin Dinajpur for periods ranging from 10-19 years comprised another 14 percent, while around 7 percent had migrated from Bangladesh between 1991-2001. In contrast, rural resettlement of migrants from Bangladesh in Uttar and Dakshin Dinajpur was generally more recent, with 41 percent having migrated before 1981, 24 percent between 1981-1991 and 17 percent between 1991-2001. Since rural migration contributes a larger volume of the total migration inflow, this would imply that a sizeable amount of undocumented migration from Bangladesh has continued in recent years.



NB: Percentage figures for length of current residence exclude around 4% migrants who did not state the duration.

Inter-state inflows of migrants who had entered Uttar and Dakshin Dinajpur from Bihar comprised another 0.61 lakh persons in 2001, among whom 0.47 lakh (77%) had settled in rural areas and 0.13 lakh (23%) in urban areas. Urban resettlement from Bihar was generally more recent compared to urban migration from Bangladesh, with 53 percent of the urban migrants who reported the duration of their current residence having left Bihar before 1981, 29 percent between 1981-1991 and 35 percent between 1991-2001. Among rural migrants from Bihar who had resettled in village areas in Uttar and Dakshin Dinajpur, 44 percent had arrived before 1981, 20 percent between 1981-1991 and 30 percent between 1991-2001. Comparison of the flow patterns of external migration into Uttar and Dakshin Dinajpur from Bangladesh and Bihar also suggests that an initial wave of migration and urban resettlement from Bangladesh before 1981 was succeeded by a wave of migration from Bihar between 1981-1991 when undocumented migration and resettlement from Bangladesh declined in volume, and has been followed by another wave of resettlement from both source regions that has been directed into rural Uttar and Dakshin Dinajpur since 1991.

A more detailed look at the segregated impact of these historical patterns of resettlement on the districts of Uttar Dinajpur and Dakshin Dinajpur is provided through the associated tables and charts. While Uttar Dinajpur is seen to have drawn a much larger proportion of the migrant inflows from Bihar, Dakshin Dinajpur has drawn a larger volume of the recent undocumented migration from Bangladesh, with 0.54 lakh migrants resettling in rural Dakshin Dinajpur and another 0.07 lakh in urban Dakshin Dinajpur between 1991-2001, against the corresponding migration of 0.28 lakh persons to rural Uttar Dinajpur and 0.05 lakh persons to urban Uttar Dinajpur after 1991.

**Table: Rural & Urban Migration from Bihar & Bangladesh to Uttar & Dakshin Dinajpur upto  
Census, 2001  
By Place of Last Residence**

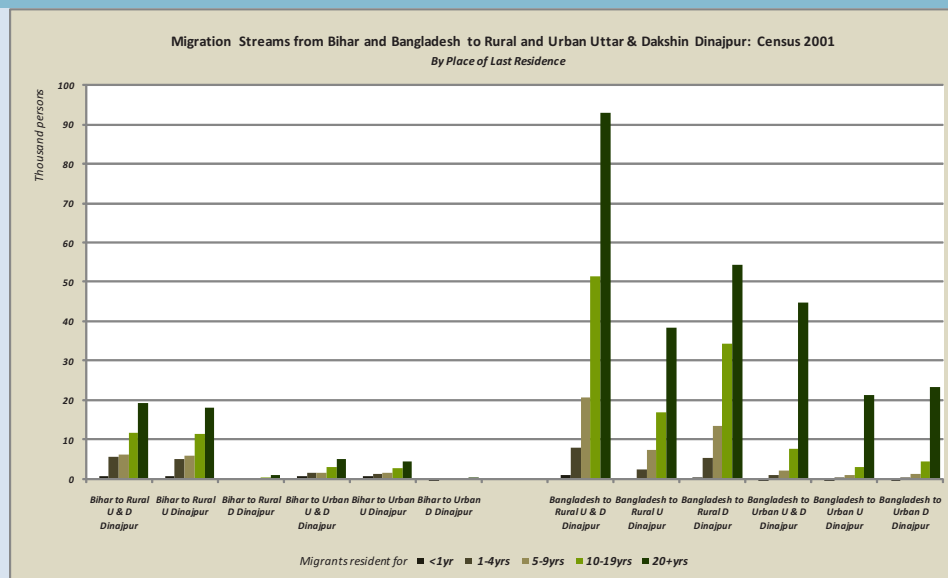
<i>Migration from</i>	<i>Rural Bihar</i>	<i>Rural Bihar</i>	<i>Rural Bihar</i>	<i>Rural Bihar</i>	<i>Rural Bihar</i>	<i>Rural Bihar</i>	<i>Urban Bihar</i>	<i>Urban Bihar</i>	<i>Urban Bihar</i>	<i>Urban Bihar</i>	<i>Urban Bihar</i>	<i>Urban Bihar</i>
<i>Migration to</i>	<i>U&amp;D Dinajpur</i>	<i>Rural U&amp;D Dinajpur</i>	<i>Urban U&amp;D Dinajpur</i>	<i>Uttar Dinajpur</i>	<i>Rural U Dinajpur</i>	<i>Urban U Dinajpur</i>	<i>U&amp;D Dinajpur</i>	<i>Rural U&amp;D Dinajpur</i>	<i>Urban U&amp;D Dinajpur</i>	<i>Uttar Dinajpur</i>	<i>Rural U Dinajpur</i>	<i>Urban U Dinajpur</i>
<b>Total Migrants resident for</b>	<b>51,234</b>	<b>41,969</b>	<b>9,265</b>	<b>48,141</b>	<b>39,937</b>	<b>8,204</b>	<b>6,522</b>	<b>2,733</b>	<b>3,789</b>	<b>5,536</b>	<b>2,314</b>	<b>3,222</b>
< 1yr	1,610	867	743	1,388	664	724	410	141	269	374	121	253
1-4yrs	6,297	5,138	1,159	5,870	4,890	980	918	408	510	771	343	428
5-9yrs	7,051	5,876	1,175	6,689	5,648	1,041	976	418	558	851	359	492
10-19yrs	13,252	11,078	2,174	12,592	10,689	1,903	1,683	750	933	1,451	649	802
20+ yrs	22,059	18,265	3,794	20,692	17,343	3,349	2,358	937	1,421	1,933	769	1,164
Unstated	965	745	220	910	703	207	177	79	98	156	73	83
<b>Male Migrants resident for</b>	<b>15,855</b>	<b>11,272</b>	<b>4,583</b>	<b>14,283</b>	<b>10,366</b>	<b>3,917</b>	<b>2,425</b>	<b>922</b>	<b>1,503</b>	<b>2,081</b>	<b>772</b>	<b>1,309</b>
< 1yr	861	411	450	697	260	437	215	73	142	192	61	131
1-4yrs	1,753	1,161	592	1,537	1,063	474	313	121	192	262	102	160
5-9yrs	1,545	1,034	511	1,396	968	428	297	110	187	257	92	165
10-19yrs	3,227	2,317	910	2,932	2,193	739	532	226	306	462	191	271
20+ yrs	8,065	6,060	2,005	7,344	5,614	1,730	988	353	635	834	290	544
Unstated	404	289	115	377	268	109	80	39	41	74	36	38

**Table: Rural & Urban Migration from Bihar & Bangladesh to Uttar & Dakshin Dinajpur upto  
Census, 2001  
By Place of Last Residence**

Contd.

Migration from	Rural Bihar	Rural Bihar	Rural Bihar	Rural Bihar	Rural Bihar	Rural Bihar	Urban Bihar	Urban Bihar	Urban Bihar	Urban Bihar	Urban Bihar	Urban Bihar
Migration to	U&D Dinaj pur	Rural U&D Dinaj pur	Urban U&D Dinaj pur	Uttar Dinaj pur	Rural U Dinaj pur	Urban U Dinaj pur	U&D Dinaj pur	Rural U&D Dinaj pur	Urban U&D Dinaj pur	Uttar Dinaj pur	Rural U Dinaj pur	Urban U Dinaj pur
<b>Female Migrants resident for</b>	<b>35,379</b>	<b>30,697</b>	<b>4,682</b>	<b>33,858</b>	<b>29,571</b>	<b>4,287</b>	<b>4,097</b>	<b>1,811</b>	<b>2,286</b>	<b>3,455</b>	<b>1,542</b>	<b>1,913</b>
< 1yr	749	456	293	691	404	287	195	68	127	182	60	122
1-4yrs	4,544	3,977	567	4,333	3,827	506	605	287	318	509	241	268
5-9yrs	5,506	4,842	664	5,293	4,680	613	679	308	371	594	267	327
10-19yrs	10,025	8,761	1,264	9,660	8,496	1,164	1,151	524	627	989	458	531
20+ yrs	13,994	12,205	1,789	13,348	11,729	1,619	1,370	584	786	1,099	479	620
Unstated	561	456	105	533	435	98	97	40	57	82	37	45
<b>Total Migrants resident for</b>	<b>240,546</b>	<b>181,568</b>	<b>58,978</b>	<b>96,321</b>	<b>68,766</b>	<b>27,555</b>	<b>240,546</b>	<b>181,568</b>	<b>58,978</b>	<b>96,321</b>	<b>68,766</b>	<b>27,555</b>
< 1yr	1,270	1,103	167	416	347	69	1,270	1,103	167	416	347	69
1-4yrs	9,499	8,225	1,274	3,296	2,671	625	9,499	8,225	1,274	3,296	2,671	625
5-9yrs	23,126	20,836	2,290	8,427	7,358	1,069	23,126	20,836	2,290	8,427	7,358	1,069
10-19yrs	59,588	51,706	7,882	20,382	17,234	3,148	59,588	51,706	7,882	20,382	17,234	3,148
20+ yrs	137,884	92,956	44,928	59,937	38,438	21,499	137,884	92,956	44,928	59,937	38,438	21,499
Unstated	9,179	6,742	2,437	3,863	2,718	1,145	9,179	6,742	2,437	3,863	2,718	1,145
<b>Male Migrants resident for</b>	<b>130,999</b>	<b>99,107</b>	<b>31,892</b>	<b>52,956</b>	<b>37,679</b>	<b>15,277</b>	<b>130,999</b>	<b>99,107</b>	<b>31,892</b>	<b>52,956</b>	<b>37,679</b>	<b>15,277</b>
< 1yr	720	633	87	215	174	41	720	633	87	215	174	41
1-4yrs	4,226	3,634	592	1,551	1,245	306	4,226	3,634	592	1,551	1,245	306
5-9yrs	11,450	10,316	1,134	4,165	3,628	537	11,450	10,316	1,134	4,165	3,628	537
10-19yrs	31,631	27,676	3,955	10,735	9,123	1,612	31,631	27,676	3,955	10,735	9,123	1,612
20+ yrs	77,472	52,625	24,847	34,035	21,836	12,199	77,472	52,625	24,847	34,035	21,836	12,199
Unstated	5,500	4,223	1,277	2,255	1,673	582	5,500	4,223	1,277	2,255	1,673	582
<b>Female Migrants resident for</b>	<b>109,547</b>	<b>82,461</b>	<b>27,086</b>	<b>43,365</b>	<b>31,087</b>	<b>12,278</b>	<b>109,547</b>	<b>82,461</b>	<b>27,086</b>	<b>43,365</b>	<b>31,087</b>	<b>12,278</b>
< 1yr	550	470	80	201	173	28	550	470	80	201	173	28
1-4yrs	5,273	4,591	682	1,745	1,426	319	5,273	4,591	682	1,745	1,426	319
5-9yrs	11,676	10,520	1,156	4,262	3,730	532	11,676	10,520	1,156	4,262	3,730	532
10-19yrs	27,957	24,030	3,927	9,647	8,111	1,536	27,957	24,030	3,927	9,647	8,111	1,536
20+ yrs	60,412	40,331	20,081	25,902	16,602	9,300	60,412	40,331	20,081	25,902	16,602	9,300
Unstated	3,679	2,519	1,160	1,608	1,045	563	3,679	2,519	1,160	1,608	1,045	563

Source: D-Series Migration Tables, Census of India, 2001



While urban areas in Uttar Dinajpur have attracted fewer migrants from Bihar after 1981, most of the more recent migration from Bihar has been into rural Uttar Dinajpur. Although nuptial migration of women from rural Bihar has been stronger than the migration of rural males for economic reasons and has risen in recent years, the flow of rural male migrants from Bihar to Uttar Dinajpur has lessened considerably. However, there has been a continuous inflow of urban migrants from Bihar into urban and rural areas in Uttar Dinajpur, involving family migration as well as the relocation of single males and excess migration of women for nuptial reasons. This trend is unbroken from the past. The volume of external migration from Bangladesh into Uttar Dinajpur has been much larger than the migrant inflow from Bihar, and has been directed mostly into rural areas in Uttar Dinajpur. After 1981, urban areas in Uttar Dinajpur have not attracted much new migration from Bangladesh, and even urban migrants from Bangladesh have preferred to move into rural areas in Uttar Dinajpur. Migrant inflows from Bangladesh into Uttar Dinajpur have invariably been dominated by the excess migration of single males, both in the past as well as the present. However, since the rate of recent inflows has declined, particularly in Uttar Dinajpur, current resettlement of migrants from Bangladesh in Uttar Dinajpur is lower than it was in the past.

It is also clear that the ebbing inflows of external migration from Bihar and Bangladesh are the principal reason why there has been increased intrastate migration in recent years. Since migration into Uttar Dinajpur has primarily been economic in nature, the decline in external migration reflects a decline in the economic incentives for new migration. New work opportunities in the district have largely been of a marginal kind, and have attracted the increased work participation of women rather than the new migration of male workers. However, while this has eased the pressure of external migration on Uttar Dinajpur to some extent, it has also created new economic conditions where resident male workers find that their opportunities for year-round employment have shrunk and have to emigrate periodically from the district to survive, gradually turning the migration inflows into an outflow of seasonal migration.

**Economic Emigration Trends: BPL SURVEY, 2002**

Besides, the high levels of migration into the district which are signalled by the rapid growth of district population since 1971, Uttar Dinajpur also experiences seasonal movements of population within and also outward from the district. Large numbers of unskilled or semi-skilled workers, collectively labeled as 'Islampuris', are known to travel as far afield as Siliguri and Darjeeling, Gangtok and even Kathmandu,

where they perform a variety of wage-rated activities ranging from rickshaw and van pulling, menial and construction labour, road construction and excavation, to domestic service, small trade and other petty enterprise. Workers from what employers label as 'Islampur' actually include rural labour from all over Uttar Dinajpur as well as from the adjoining Kishanganj region which lies contiguous to Islampur SD. The growth of this migrant workforce has now come to notice because of the sheer number of migrant workers - usually juveniles and young males - that are involved.

Several parts of Islampur and adjoining blocks from where significant numbers of workers migrate either seasonally or for longer durations of 1-2 years now show characteristics of the remittance economy which are also characteristic of northern Bihar. Inflows of small but regular amounts of cash into the villages permit several families to improve and modify dwelling structures from purely kuchcha to semi-pucca construction, as can be widely noticed during village visits through this region. However, a less-desired consequence is the large scale dropout of boys from rural schools once they cross the threshold age of 13-14 years and aspire to earn a living for themselves as well as for dependent families.

Livelihood processes of this kind which result ultimately in outward migration from rural areas, are often difficult to comprehend or document because of the difficulty in meeting or interviewing migrant workers who rapidly scatter into a very large receiving region. However, while the migrant workers themselves soon become almost untraceable, the local families that they leave behind temporarily become a good source of information. From interviews of this kind, conducted at several GPs in Chopra, Islampur, Goalpokhar-1 and Goalpokhar-2 blocks during the evaluation of the Post-Literacy Campaign (PLC) by a North Bengal University team in 2007, it became apparent that rural migration was often a livelihood response during the agricultural slack season, when many landless rural labourers found insufficient work. Migration of this kind was strong enough to affect the gender ratios of learners who had participated in the rural literacy campaign.

A further set of interviews at Bindol GP located along the international border of Raiganj block, conducted during the regional study of trafficking of women and children by the Centre for Women's Studies, North Bengal University, identified several regional features that contribute to such undocumented labour movement. For instance, the initial outward movement by a small number of local workers takes place with the encouragement and assistance of smalltime middle-level procurers and labour contractors. Many of the former were themselves migrants from adjoining villages, who were thus well-known to the new aspirants. Among the features which made such migration attractive are the ready access to cash and other forms of small luxury and entertainment that these contact persons always seem to have. Would-be migrants are also reassured of network support from other residents of the district who had migrated earlier and are now residing in the places where the new workers will be destined. Migration also occurred normally in groups in which one or two members took the first initiative and then assembled a small group of their friends. This purely personal mode of contact and organisation made the process of migration virtually undetectable. Subsequently, many returning migrant workers in turn became the agency for more outward migration, until what had begun as a trickle gradually grew into a regularly flowing stream.

Among the characteristics which make 'Islampuri' workers highly employable in the adjoining hinterlands to which they go, is their capacity for hard work accompanied by low material and wage demands. This in fact reflects high levels of work competition and consequently low wage rates in many rural regions through Uttar Dinajpur. Daily-wage differentials between Islampur SD and contiguous areas in Siliguri are as much as Rs. 20/- and increase even further in the Darjeeling and Sikkim hills, where children from impoverished areas in the Islampur SD have become the first choice for employment in road construction groups, small eateries and establishments and also many urban homes. Being undocumented, migration of this kind is also unregulated, imposes a potential threat to the well-being and personal security of the workers involved,

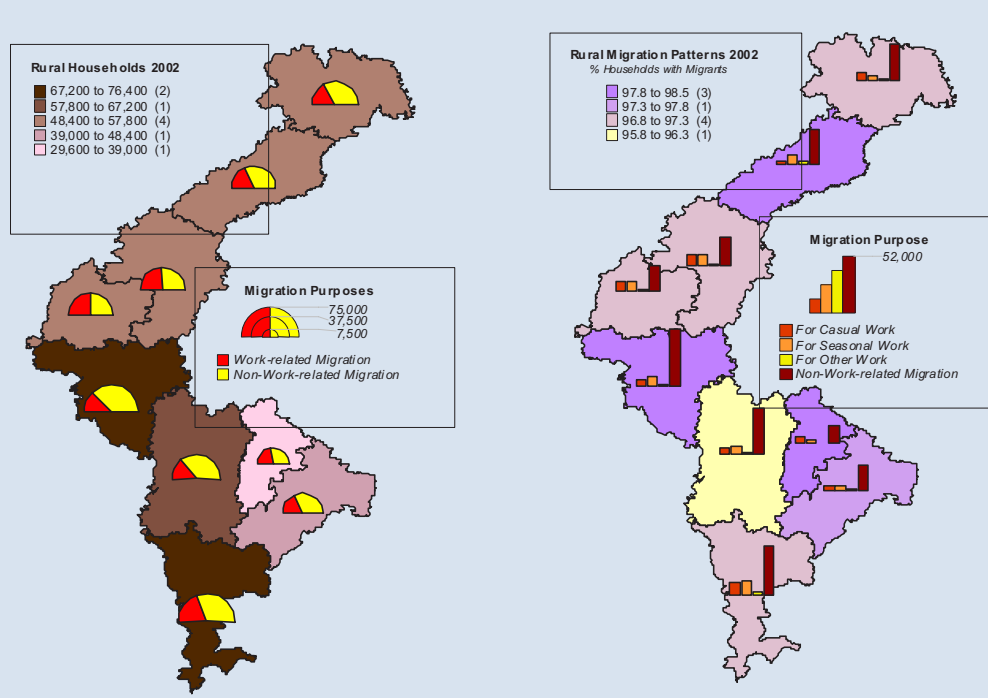
many of whom are underaged. The proneness of certain rural areas in Uttar Dinajpur to yield this constant stream of rural outmigration was tied up intimately with high population and the state of landlessness and poverty, the overall rural employment situation, and the state of human development within the district. Despite the relatively strong agricultural base of the district - particularly in rice production, the roots of outward rural migration lay most decisively in the inability of regional agricultural systems in the district to provide rural workers with year-round opportunities for work.

An opportunity to investigate the prevalence and extent of such internal migration pressures across the different blocks of Uttar Dinajpur is provided by data from the 2002 BPL Survey, which in West Bengal is also known as the Rural Household Survey [RHS 2002]. Uttar Dinajpur reveals highly paradoxical characteristics in this respect. The spread of organised agriculture and the high returns obtainable from rice cultivation, to which Uttar Dinajpur is naturally suited, have been sufficient in the long term to draw in a vast number of political and economic migrants from adjoining states and countries, where similar scope did not exist. Despite the large number of migrants that the district has absorbed, Uttar Dinajpur has been able to afford them with means for livelihood support mainly through its continuous progress in agriculture. However, although plenty of work can be found by agricultural labourers during the principal agricultural seasons, such work is not necessarily continuous and does not extend through the rest of the year. Consequently, a class of rural labour has evolved in the district, which often has to expand its livelihood choices by migrating when necessary for seasonal or casual work.

Rural settlement patterns in the district are well reflected in the distribution of rural households across the blocks. The continuous region from Karandighi to Itahar is thus the most densely settled region of Uttar Dinajpur with each block accounting for a minimum of well over 65 thousand rural households. However Hemtabad and Kaliaganj, both also located in Raiganj SD, are more sparsely settled with under 40 thousand households each. Rural settlement through Islampur SD is less dense but also more even. Each block there, with the exception of Karandighi, has just over 50 thousand households on the average. These overall patterns of rural settlement closely reflect the physiographic conditions and agricultural potentials of the district. Settlement is thus most intense where agriculture is most developed and cropping intensity is the highest.

Although agricultural progress has created immense opportunities for labour absorption in the district, the seasonality of agricultural activities also imparts a seasonality to the resulting rural livelihood patterns. This is also reflected in Census data, for example, in the figures for marginal workers which is high in Uttar Dinajpur both for males and females. Under the circumstances, it often becomes necessary during the agricultural slack season for these workers to seek out work wherever it is available when it is not available in the vicinity of where they live. Detailed data from the BPL survey thus demarcate four sources of internal migration in Uttar Dinajpur, three of which are work-related and one of which is not. Non-work related migration is reported across all blocks in Raiganj SD, and also through most of Islampur SD with the exception of Goalpokhar-1 and Goalpokhar-2, indicating the complexity of migration into and from Uttar Dinajpur. However, all blocks without exception also report the significant presence of rural migration for work-related causes. Thus on a household-scale, more than 9 out of every 10 rural households in Uttar Dinajpur report instances of migration by at least one household member, either for work or other causes. The incidence is even higher in Islampur, Karandighi and the Hemtabad-Kaliaganj belt. Raiganj block on the other hand is something of an exception since, as the headquarters block, it also receives a large number of rural migrants. While fewer households here report outward migration, in those that do non-work related migration is listed as the principal cause. This would indicate on the whole that Raiganj block is able to provide stabler livelihood opportunities to its rural residents, resulting in less outward migration pressure.

MAP: Regional Patterns of Work-Search & Migration in Rural Uttar Dinajpur, 2002



Considerable variation exists across the other Uttar Dinajpur blocks in the reasons for work-related migration. In blocks like Goalpokhar-1 and Goalpokhar-2, and also in Kaliaganj to a proportionately lower extent, migration on equivalent scales takes place both for seasonal and casual work. In Chopra and Hemtabad on the other hand, migration of rural workers occurs principally in search of casual work. Conversely through the main agricultural blocks of Islampur, Karandighi, Raiganj and Itahar, rural outward migration has a pronouncedly seasonal character, in keeping with the otherwise high agricultural labour demand during seasonal peaks. Thus in most Uttar Dinajpur blocks, a class of landless labour now exists that does not necessarily draw its livelihood solely from agricultural work. It is largely from this class of 'footloose' workers who are willing to migrate outside the district if necessary for extended periods that the 'Islampuri' migrant workers seen in other neighbouring districts are commonly drawn.

Other figures from the BPL Survey 2002 on current rural occupational patterns in Uttar Dinajpur show the predominance of casual labour over other livelihood alternatives like subsistence cultivation, artisanship and other labour activities and salaried work. This closely reflects the recent trends towards high population growth fuelled by in-migration into Uttar Dinajpur. This pattern is seen invariably across all blocks, with the subregion stretching from Karandighi through Raiganj to Itahar accounting for the largest component of casual workers in terms of sheer numbers. Evidently, these high rates also reflect high levels of rural in-migration into these blocks. Subsistence cultivation, on the other hand, which is present more or less evenly in every block of the district, is based on land ownership and therefore reflects an older pattern of rural settlement that preceded high rates of migration. Obviously, a large group of rural workers have to seek employment outside agriculture for at least a part of the year. Such workers are better inclined to find such employment opportunities in blocks like Raiganj, Itahar, Karandighi, Hemtabad, Goalpokhar-1 and Goalpokhar-2, where rural non-farm activities have also developed to a noticeable extent. In Islampur and Kaliaganj, the scope for rural non-farm employment is spread more or less evenly across all work categories.



Chopra is a noticeable exception, with non-farm occupations such as tea plantation work assuming a considerable role in the overall occupational distribution.

In a district with a large population and relatively low levels of economic development, not everyone seeking rural work is likely to secure employment at the point or place of search. A large group of currently unemployed rural workers in Uttar Dinajpur consequently reported that they were in the midst of a job search. The categories of work sought by these rural workers were very informative as to the potential for internal work-related migration. Except for Chopra and Hemtabad blocks, where a larger proportion of currently unemployed rural workers were seeking out casual employment, the dominant category in the district comprised rural workers who were seasonally out of work and were thus seeking alternative livelihoods for the duration of a season. Seasonal shortages and excesses of labour supply are thus overwhelmingly present through most of Uttar Dinajpur, driving down rural wage rates considerably. The promise of sustained work at higher wage rates at locations in other states or districts is thus a pronounced reason for internal migration of casual workers from Uttar Dinajpur to other states and districts. Even among seasonal agricultural workers, periods of seasonal agricultural slack create persisting livelihood pressures. Except for agricultural labour families that possess small parcels of land, such seasonal pressures are also mitigated ultimately by internal migration to more distant districts.

#### **BOX - TEXT**

##### **LABOUR MIGRATION IN THE GOALPOKHAR REGION**

As a populous but economically backward district, with livelihood choices within it being scarce, Uttar Dinajpur seasonally or temporarily exports a part of its labour force to relatively advanced states in India, like Maharashtra, Delhi, Karnataka, and Punjab. Thus in every village within the district, one can come upon a section of village youths - mostly male - who at some point migrate out of the village. Their migration, in most cases, is temporary in nature. The migrant youth work in construction or small manufacturing and service units for a few years, earn some money, and then come back. Some of them, however, ultimately take their families with them to the place of their migration. This migration is poverty induced, and the rural youths view it as a means of fighting their way out of poverty.

During survey work for the Uttar Dinajpur DHDR, a case study was done on the village of Dumuria, under Surjapur-1 Gram Panchayat in Goalpokhar-2 block, which is one of the most backward blocks in the district. The village has 150 households and a brief survey was conducted on 100 of these. Dumuria is a village almost totally inhabited by Hindu refugees and a few Santhal families, who had migrated from Bangladesh, some before 1971 and most after 1971. Most Hindu migrant families belonged to various Scheduled Caste groups.

The village was educationally backward, as 30 of the 100 household heads interviewed were illiterate, while another 26 were only functionally literate. Among those who had some level of education, 14 had studied upto the primary level, 19 upto the upper primary level and only one had studied upto high school. No resident had studied beyond this level.

Landlessness or marginal holdings characterised the village. Only five households, with 1-2ha of land each, would qualify as small farmers. The household incomes were also indicative of the impoverished nature of the village. There was one family with a monthly income less than Rs. 1000, while about 20 others had a monthly income between Rs.1000 and Rs.2000. Another 32 families had an income in the range Rs.2000 to Rs.3000 while 28 others had monthly incomes in the range Rs.3000 to Rs.4000. Thus only 18 families in Dumuria had earnings exceeding Rs. 4000 a month.

As far as out-migration from the village was concerned, 59 migrant workers were identified, mostly male belonging to the age group 20-35 years. Among them, two had migrated outside the village to places of work within Uttar Dinajpur, five to places outside the district, and 51 cases to places outside West Bengal. Of the latter, seven have migrated to work as domestic servants or as labour at construction sites, three to work as skilled masons in the construction sector, four to work in tailoring units, four as carpenters, one in other services, and a few as workers in small manufacturing units. A few of the outmigrants were women, who had migrated after their marriage. Only eight of these migrants have left the village for good with all of their family. All the others have migrated less than two years ago and are casual or temporary migrants.

The fact that Dumuria is a village largely composed of refugee families from Bangladesh seems to play a considerable role in the willingness of its residents to outmigrate further. Even after resettling in Uttar Dinajpur, many of these families have remained poor because of limited landholding and limited opportunities for work. Earning differentials between the village and the places to which its workers seasonally migrate enables migrant workers who save a part of their increased earnings to make some outlay towards a better future. Once the inertia towards outward migration is broken, a momentum is generated which leads to a stream of seasonal migration. New workers who choose to migrate learn about other earning opportunities from returning migrants and can also count on support from the social networks set up by other migrants who had left Dumuria previously.

## Chapter 7

### THE WAY AHEAD

#### DHDRs and Decentralised Planning

As one of the most backward districts in the state of West Bengal, Uttar Dinajpur undoubtedly experiences severe impediments in the equalisation of the human capabilities represented by education, healthcare and livelihood access. While the foregoing chapters of the Uttar Dinajpur DHDR have provided a detailed report on these critical development constraints that exist today within the district, along with associated challenges in achieving gender equity and controlling high migration-induced rates of population growth, the logical purpose of preparing the DHDR can only be fully served if these prior findings are compressed synoptically into a set of consistent human development rankings that can be used to measure the level of current attainments and deprivations within the district. Within the structure of human development reports, as popularised by the UNDP, this task is accomplished intuitively through the formulation of simple ranking indexes that can be easily analysed and interpreted by the ordinary people of the district, as well as by other stakeholders who have a more direct role in deciding future planning priorities for the district. Thus, through human development indexing, the DHDRs can review the distribution of attainments and the fulfilment of people's entitlements across the district, while also identifying regions, population segments and livelihood sectors where these constraints are most severe.

By disaggregating the overall development attainments at district level and analysing these at subdistrict level for specific sectors and regions, the DHDRs essentially introduce a 'bottom up' approach towards the measurement of human development and are thus able to draw focus to pockets of persisting backwardness that exist in the district. By shifting their attention from aggregate levels of achievement to the disaggregated patterns of regional attainment, the DHDRs also measure the extent of development inequality within the district, and reveal directions for resource reallocation so that persisting human development gaps can be filled. Thus the DHDRs also assist in infusing a new sense of purposiveness into decentralised district planning by setting achievable timeframes, within which human development inequalities are to be removed. By offering a comprehensive report card to all stakeholders on the development processes and the overall development performance within the district, the DHDRs ultimately help in outlining a development vision for the district, thus providing a springboard for the achievement of social justice and regional equity.

The way forward for the district of Uttar Dinajpur, as defined in this concluding chapter of the Uttar Dinajpur DHDR, commences with two essential steps. The first step involves the synoptic capture of current human development situations that exist within the district through the formulation and formal analysis of human development indices for the different blocks that constitute the district. The second step involves a review of the critical human development constraints and processes described in the preceding chapters in the light of these indices, and the envisioning of a basic human development strategy that can be followed in future by the district planning authorities in Uttar Dinajpur. While these steps are merely the beginning, they create a valuable opportunity to review and recast development priorities, ultimately with the purpose of liberating the human development process in Uttar Dinajpur from its present constraints and opening the doorway for vibrant and inclusive growth that reaches out to all people residing in the district.

#### Indexing Human Development in Uttar Dinajpur

The indexing of human development in Uttar Dinajpur at block and district levels at the conclusion of the DHDR exercise fulfils several useful purposes. Since baseline information on the relative development

achievements of the nine CD blocks is generally inadequate, block indexing helps to identify pockets of persisting backwardness in the district, and also draws immediate attention to the nature of human development deprivations within each block as well as to the nature of specific interventions that need to be made, thus assisting the evolution of an overall development strategy for the District Plan. The indexing methodologies also bring special focus to bear on underlying spatial and agroclimatic attributes that compound human development deprivations in certain subregions. By identifying the sources of persisting human poverty and vulnerability among certain social sections, the indexes help in the formulation of appropriate poverty alleviation strategies designed to uplift vulnerable rural communities from the clutch of human development deprivation and poverty.

Nevertheless, several conceptual and methodological issues have to be resolved before satisfactory computations of the indices can be made. Since the analysis in the DHDR has to be made at subdistrict level using block-level data, the database support for the indexing exercise is poor and entails modification of the UNDP methodology for computing human development indices [HDIs]. Because the existing data sources are limited, insufficient information is available for the computation of human development *dimension indices* for urban areas and for the district as a whole, through direct application of the UNDP method. Such difficulties appear most strongly in the computation of *income-based indices* since no official estimates of per capita incomes are currently available at subdistrict level. Difficulties also arise during the computation of *life expectancy based indices* at subdistrict level, since estimates of *infant mortality rates* [IMRs] for subdistrict units are not available from SRS and the IMRs available from the ICDS system are often incomplete and unreliable.

Thus the indexing of human development in the DHDR depends on adaptation of the original UNDP approach to suit the databases currently available at block level. Such adaptations have also previously been made during HDI computation in national and state HDRs, because of similar database constraints. The *National HDR 2001* for India, thus, made significant departures from UNDP computation methods while calculating *longevity indices* based on weighted averages of *life expectancy at age 1 year and IMR*, instead of zero-age life expectancy as in the relevant UNDP index, and also while calculating indices for *educational attainment* based on weighted averages of *7+ literacy rates* and the *intensity of school enrolments* at different educational stages, instead of *adult literacy rates* and *gross enrolment ratios [GERs]* in the UNDP computation. Again, the indices for *income attainment* in *NHDR 2001* departed significantly from UNDP computations based on *real per capita income*, by weighting *real per capita consumption expenditure* with adjustments for *income inequality* and *inflation* levels.

The HDI computations made in the *West Bengal Human Development Report [WBHDR] 2004*, again, made a methodological departure from the indexing methods used in *NHDR 2001* by returning to zero-age life expectancy to capture longevity and using a weighted average of *7+ literacy rates* and *NSS school enrolment ratios* in the 6-14 age group instead of *adult literacy rates* and GERs. In the case of the WBHDR indices for income attainment, the departures made from the UNDP and NHDR formulations were even more radical, since these were based on an unweighted average of *DDP per capita*, *NSS monthly per capita expenditure [mpce]* and *NSS estimates of the population above the poverty line*.

The methodological problems that arise when computing sub-district level attainment indices for the DHDRs are even more severe, because of lack of direct estimates of per capita income and per capita expenditure at sub-district level, and the dearth of reliable estimates for IMR. The income attainment and health attainment indices of the UNDP thus have to be substituted by suitable surrogate indices that can be readily computed from the existing block level database. However, it may be recalled that the UNDP life expectancy, educational attainment and income attainment indices in themselves are surrogate measures for basic underlying human development dimensions of

- (i) leading a long and healthy life
- (ii) continuous acquisition of knowledge, and
- (iii) enhancing command over resources and material living standards

The lack of direct measures for income, health and knowledge attainments can thus be resolved by the use of alternative indirect measures of these human development dimensions, to yield consistent block-level estimates of HDI based on adaptations of the UNDP methodology.

### Modified HD Indexing Procedures in the Uttar Dinajpur DHDR

While the *Bankura DHDR, 2007* did not make any HDI computations, choosing instead to represent inter-block variations in human development attributes pictorially as radar graphs, modified HDI computations were made in the *Malda DHDR, 2007*, with the limited objective of making internally consistent human development comparisons between the constituent blocks in Malda district. The indexing methodology used in the *Uttar Dinajpur DHDR 2010* is identical to that earlier adopted in the Malda DHDR, and involves the initial computation of separate dimension indices that measure existing attainments in the 9 Uttar Dinajpur blocks in the spheres of education, healthcare and access to livelihoods. Through a simple averaging method, these are then combined to yield the corresponding HDIs for each block, which measure overall human development attainments in collective terms.

The computation for the *education index* is based on gross enrolment ratios [GERs] among the population segment aged between 5-14 years and 15+ adult literacy rates for each Uttar Dinajpur block, representing direct application of the UNDP methodology. Nevertheless, in the absence of regular annual headcounts, the baseline estimates for the block population falling within these two age-segments in 2006 were generated through forward projection of the corresponding 2001 population figures, using exponential growth trends shown by these two population segments during the intercensal period between 1991-2001. The projection has an officially representative character, since similar projected population figures are routinely used during the targeting of Government education and healthcare programmes at district and block level.

Modifications to the UNDP health and income indices were made, for reasons earlier outlined, while calculating block level healthcare and economic indices at for Uttar Dinajpur. The modifications involved surrogate computation of

- (a) a *health services accessibility index* in lieu of the UNDP *life expectancy index*, and
- (b) a *livelihood opportunities index* in lieu of the UNDP *income attainment index*

The health services accessibility index used in the Uttar Dinajpur DHDR is the unweighted average of separate sub-indices for

- (i) the proportion of the projected block population covered by rural sanitation schemes in 2006
- (ii) the proportion of the projected block population fully or partially covered by safe drinking water schemes in 2006
- (iii) the proportion of the target population in the age group 0-4 years covered by immunisation services under the Universal Immunisation Programme [UIP] in each block in 2006, where the immunisation target for each block is determined independently on the basis of block-wise estimates of live births, rather than following the more approximate *expected level of achievement* [ELA] methodology used while reporting immunisation achievements in Health Department documents, and

- (iv) the estimated proportion of safe deliveries in the block in the year 2006, where safe deliveries were defined as the aggregated number of institutionalised deliveries and births assisted by trained birth attendants [TBAs]

This combination of health and hygiene indicators ensures the sensitivity of the health services accessibility index to underlying factors that also determine rural morbidity and mortality, thus closely approximating the block level rankings that would have been obtained if, following the UNDP method, a zero-age life expectancy index had been computed from IMR. The need for computing immunisation coverage indirectly from block estimates of live births arises because the ELA-based indicators for immunisation achievement commonly tend to be based on underestimates of the actual number of live births in the district. Hence the modified methodology was deemed more appropriate in estimating health service accessibility in the Uttar Dinajpur blocks.

The *livelihood opportunities* index used in the DHDR is based on work participation patterns among the Uttar Dinajpur population, for which information is readily available at block level from the Census database. However, since these data are not updatable till the next Census, the computation of the index is done for the census year 2001, unlike the other HD attainment indices where the computations refer to the year 2006. The other practical limitation of this indexing method, in comparison to standard income based indices, lies in its inability to draw in monetary data such as prevailing wage-rates which would help in the valuation of work, rather than merely measuring the extent of its availability. Several conceptual obstacles nevertheless stand in the way of including monetary data in the computation of the index. While standardised data on wage rates are not consistently available at block level, a block is also probably too large a unit for the wage-levels within it to be captured by a single average wage rate. Also, because of wideranging differentials between the wages admissible for various categories and classes of work, a single average wage would be incapable of capturing earning differentials within different segments of the block population. Hence, the livelihood opportunities index used in the computations for the Uttar Dinajpur DHDR depends exclusively on work participation information drawn from Census sources.

Various dimensions of work participation are included in the computation of the index. While Census work participation rates [WPRs] or the ratio of total workers in the block to the 2001 block population give some indication of the size of the block workforce and hence of the *extent* to which work opportunities are available to the block population, the ratio of main workers who are able to secure more than 180 days of work in a year to total workers in the block is a measure of the *quality* of available work opportunities. Collective earnings among main workers would in any case exceed the combined earnings of an equivalent number of marginal workers in the course of the year. Hence, blocks that are able to provide more opportunities for main work to their working population would experience higher income attainments compared to other blocks in the district. A third work participation attribute included within the livelihood opportunities index, utilising the four-fold occupational classification available for Census 2001 data, is the ratio of 'other' workers to main workers, which measures the *diversification* of work opportunities within a block. The *other worker* category within this classification excludes the proportion of workers in the block that derive their livelihoods from traditional agricultural and artisanal home-based activities. Thus, the ratio of other workers to main workers reflects the extent to which opportunities for non-traditional off-farm based livelihoods have proliferated within the block, indicating expansion of the economic base of the block. The Uttar Dinajpur blocks that are able to provide highly diversified work opportunities outside agriculture would also be capable of expanding the incomes of the block population by drawing more and more rural workers into new activities outside traditional agriculture. The livelihood index used in the DHDR is then computed as the simple average of these three basic work participation attributes.

The modified *human development index* used in block-wise human development computations for the Uttar Dinajpur DHDR is then expressed as an equiweighted average of the three dimension indices listed above. Human development differentials between blocks can thus arise because of underlying variations in block level education, healthcare and livelihood attainments, in any possible combination. The results of the modified HDI computations for Uttar Dinajpur are presented in the series of tables and charts below, which rank the 9 CD blocks against each other in terms of their indexed human development attainments. HD dimension indices and HDIs have only been calculated for the rural population in the district, since databases containing the same set of development variables are not available at present for the four statutory towns in the district. Since population growth in Uttar Dinajpur in recent times has been heavily influenced by migration, other conceptual difficulties also arise in making forward projections of the population in individual urban areas, as required by some of the component indices. While rural-to-rural migration generally follows a longterm trend, rural-to-urban migration can be quite spasmodic and unpredictable. Nevertheless, since urbanisation levels in the district are still very limited and the rural areas account for nearly 78 percent of the Uttar Dinajpur population, the block indices are highly representative of the overall human development situation in the district and of the level of human development deprivation experienced in each particular block. As such, these HD indices can provide adequate direction to future human development planning exercises in Uttar Dinajpur by indicating the direction in which the planning interventions can be refocused.

In line with the procedure earlier adopted in the *Malda DHDR 2007*, separate computations have also been made for block level *human poverty indices* [HPIs]. Because of the frictions and fluxes generated by the development process, not all residents in a block are able to leverage human development opportunities equally, experiencing relative deprivation as a result. The HPI is an inversely-weighted index that seeks to capture the extent of poverty-inducing deprivations among vulnerable sections within each CD block. Especially vulnerable among rural segments within block population, for instance, are marginal cultivators who have lost land and become landless labourers as a consequence, households and communities who experience differential social barriers in their access to livelihoods and education, women-headed households, households headed by old and infirm members and other households with a large proportion of marginal workers whose earnings are subject to periodic uncertainty, and so on. In each such instance, the rural households under consideration suffer additional deprivation relative to their peers. Thus while the block HDI coefficients represent the extent of human development achievements made by each block in Uttar Dinajpur, the HPI coefficients identify the corresponding patterns of relative deprivation that may exist in each CD block. Human development interventions in the district need to be made after analysis of both coefficients.

### Current Educational Attainments in Uttar Dinajpur

The education index calculation for the Uttar Dinajpur blocks was based on forward projection of the block-level population count from the 2001 Census upto the year 2006, using the annual exponential growth rates for the population of each block populations, Block-wise primary and upper primary enrolment figures for 2006 were drawn from the DISE database. The size of the 5-14 age cohort, from which learners are drawn at primary and upper primary stage, was estimated for each block from age-group data for the Uttar Dinajpur population. The broad estimates thus generated were smoothed by forward projection of the 0-5 age cohorts from the 1991 and 2001 Censuses, since all infants in that age-group in 2001 would be in the school-going age in 2006, while infants in the 0-5 age-group in 1991 would all have left the primary school-going age cohort in 2006. No data adjustments were made for internal migration of students within the district, since children leaving their birth region to attend upper primary schools located elsewhere

were specified as being residents in the blocks where they were currently enrolled. The Gross Enrolment Ratio [GER], i.e. the proportion of the population of school-going age that is currently enrolled at schools, was estimated for each Uttar Dinajpur block.

Literacy rates among the 15+ age-group in each block were estimated by projecting the literacy trends for 1991-2001 and the baseline population of this COHORT. The number of literates in this age-segment was estimated by subtracting the number of school-going literates in the 5-14 age-group from the projected figure for total literates in each block in 2006. Educational attainment indices were then computed for each block estimated as a weighted average of GERs and 15+ literacy rates, with two-third weight assigned to literacy and one-third weight to GER. The results of this computation are tabulated below for the 9 constituent blocks and the aggregate rural population of Uttar Dinajpur district.

While Hemtabad and Kaliaganj blocks ranked first and second in terms of overall educational attainments, doing well in terms of both GERs as well as 15+ literacy, Goalpokhar-1, Goalpokhar-2 and Karandighi occupied the three lowest positions respectively, primarily because of their lower literacy achievement. Since Goalpokhar-1 was an exceptionally poor performer in both GER and 15+ adult literacy, low literacy levels were likely to be perpetuated in this block in the future. In the other Uttar Dinajpur blocks, GERs tended to cluster closer together, indicating that a future educational transformation can be foreseen in these blocks. Chopra in particular was a notably strong performer in terms of school enrolments, in spite of having adult literacy achievements that were on the low side. Nevertheless, in terms of their overall education index, the Islampur SD blocks collectively trailed behind the Raiganj SD blocks, once again demonstrating the high degree of educational inequality that separates the two sub-divisions of Uttar Dinajpur.

**Table: Education Index Computations for Uttar Dinajpur DHDR, 2010**

CD Blocks	2001 Population	2006 Projected 15y + Population	2001 7y + % Literacy	2006 Projected 15y + % Literacy	2006 Projected 5-14y Population	2006 Total P/UP Enrolment [DISE]	2006 Gross Enrolment Ratio [GER]	Combined Education Index	Education Index Rank
Chopra	223022	156049	43.3	31.7	66800	55146	0.83	0.486	5
Islampur	241951	169294	38.4	31.9	72469	48822	0.67	0.438	6
Goalpokhar-1	245430	176904	31.6	29.2	75727	36190	0.48	0.354	9
Goalpokhar-2	226472	162766	34.1	30.1	69675	43873	0.63	0.411	8
Karandighi	304986	218471	36.0	34.6	93520	50663	0.54	0.411	7
Raiganj	347108	250175	50.3	49.5	107092	68030	0.64	0.542	3
Hemtabad	118822	85921	56.7	51.8	36780	26615	0.72	0.586	1
Kaliaganj	190019	136393	54.1	52.4	58385	39877	0.68	0.577	2
Itahar	249541	178526	47.4	46.4	76421	47177	0.62	0.515	4
<b>U Dinajpur Rural</b>	<b>2147351</b>	<b>1534499</b>	<b>42.9</b>	<b>39.0</b>	<b>656870</b>	<b>416393</b>	<b>0.63</b>	<b>0.471</b>	

Source: Lead Authors' computations for Uttar Dinajpur DHDR, 2010

Certain positive indications are also revealed by the education index computations. With the exception of Goalpokhar-1 and Karandighi, where school enrolments still lag behind the education attainments of the rest of the district, the other Islampur SD blocks all show improvement in enrolment levels despite having low 15+ literacy achievement. Educational backwardness in Uttar Dinajpur can thus be said to be an



inheritance from the past, in the form of persisting illiteracy among adult residents. Chopra has made a remarkable turnaround in breaking this crux, achieving very high GER in spite of low initial literacy. Thus the low levels of education attainment in the Islampur SD blocks largely reflect educational backwardness within their adult populations, which is likely to be reversed with time if school enrolments substantially improve. The unenviable position of Uttar Dinajpur as the least literate district in West Bengal is primarily because of these low education attainments among the population of the Islampur SD blocks, among which Goalpokhar-1 appears likely to perpetuate its position as the least literate block in Uttar Dinajpur because of its abysmally low attainments in both GER as well as adult literacy. Evidence that this position can be improved upon in the future emerges in the case of adjacent Goalpokhar-2 and Chopra. Although adult literacy here is almost at par with the low level seen in Goalpokhar-1, the GERs in these blocks stand clearly ahead. The implication is that families with illiterate parents here are now being increasingly persuaded that the key to a better future lies in improving the access of their children to formal education.

However, a more dire portent also present within the education index computations for all Uttar Dinajpur blocks relates to the longterm implications of the present rural GERs. Currently, less than two-thirds of the children in the 5-15 age-group who should be attending school are enrolled at primary and upper primary schools in the district. Under the target of universalising education which seeks to raise GERs within this age-group to 100 percent in a phased manner in the next few years, a sizeable number of out-of-school children still have to be inducted into the formal and nonformal school system in the district. Since enrolments and pupil-teacher ratios are already high in most Uttar Dinajpur blocks, this cannot be accomplished without substantial expansion within the education system across the entire district. Without this policy commitment, the universalisation target cannot realistically be met in Uttar Dinajpur, and the district will see the perpetuation of its legacy of high adult illiteracy for a long time to come.

The urgency of the educational situation in Uttar Dinajpur district becomes readily apparent. At present, there are a mixture of positive and adverse signals, indicating that education has become a key area for human development intervention in the district. The key interventions will have to be made particularly in the Islampur SD blocks, where there are significant educational deficiencies, both in terms of the dearth of educational institutions and in the number of teachers. The key educational interventions will also need to be planned holistically, so that children entering the primary education system are provided adequate avenues for further educational advancement through the establishment of an adequate number of upper primary and secondary schools and colleges. Without substantial augmentation of the educational infrastructure across the district, both in terms of the dispersal of teaching staff and the dispersal of institutions, a large proportion of the rural population will continue to remain deprived of adequate educational opportunities and knowledge inputs. In view of the urgency of this problem, a re-prioritisation will have to take place within the district which places the educational needs of the isolated Islampur SD blocks above the needs of other more advantageously situated blocks, till these educational imbalances are rectified. Given their border locations and their difficulties of communication, villages in the subdivision will need focused attention if the current problems which result in Uttar Dinajpur being the least literate district in West Bengal are to be rectified equitably.

### Current Health Attainments in Uttar Dinajpur

While the educational attainment index discussed above applied the UNDP method of computation, the health attainment index calculation for the Uttar Dinajpur DHDR employs the proximate method developed for the calculation of block level health indices in the Malda DHDR 2007, because of the unreliability of direct IMR estimates available in the district. Accordingly, the assessment of current healthcare situations in the Uttar Dinajpur blocks is based on surrogate indicators that are sensitive to the quality and coverage

of the basic health services that are accessible to the block populations, namely the coverage of the population by rural sanitation and safe drinking water schemes, the coverage extended by neonatal immunisation schemes, and the incidence of safe deliveries in each Uttar Dinajpur block. These represent a definitive set of general health & hygiene services and maternal & child health [MCH] interventions which also contribute in the long run to the reduction of IMR and improvement of life expectancy in the district, as targeted during computations of the UNDP health attainment index. The health sub-indicators used in measurement of the surrogate health services accessibility index are listed below, with the attainment levels achieved by the nine Uttar Dinajpur blocks. The database on which these are developed includes data from the Uttar Dinajpur Zilla Parishad on current block-coverage under the Total Sanitation Programme [TSP] and Swajaldhara scheme, and data from the Uttar Dinajpur District Health Information System [DHIS] located at the office of the Chief Medical Officer of Health [CMoH] on block-wise coverage of children in the 0-4 age-group under the Universal Immunisation Programme [UIP] and on the incidence of safe deliveries that occur under the supervision of hospitals and trained birth attendants [TBAs] in each block. However, the population figures for the measurement of health and sanitation targets and for the overall number of births to be targeted by universal immunisation schemes and safe delivery are projected forward to the target-year 2006. As explained earlier, the ELA methods used for estimating MCH and immunisation targets are discarded since these provide inaccurate estimates of the number of live births, which are also inconsistent with the intercensal growth rates experienced by the Uttar Dinajpur population. Instead, a more direct estimate of the number of live births that have actually occurred is made from the exponential projection of intercensal growth rates for the block population. These are then used for the measurement of block-wise attainments under the immunisation and MCH programmes, from which the composite health accessibility index is developed by averaging these with safe drinking water and rural sanitation coverage.

As seen in the table for the four sub-indicators of health attainments, rural sanitation coverage under TSP is low in most Uttar Dinajpur blocks. Since TSP includes a subsidy element extended to BPL households, the figures for TSP coverage largely reflect the degree of response among rural BPL households to this incentive. Since rural APL households are expected to bear the full costs of acquiring and installing sanitation facilities purchased from the sanitary marts, the response to TSP among them has been poor in most parts of rural West Bengal and India, accounting for the low rural sanitation coverage visible in the Uttar Dinajpur blocks. On the other hand, the Swajaldhara norm defines a rural habitation as being fully covered by the scheme if a protected water source is accessible to a maximum of 250 persons within an access radius of 1.6 km from their households. On this count, many Uttar Dinajpur blocks now report full coverage under the Swajaldhara norm, even though this does not in itself guarantee that all rural residents would access safe potable water from these installations if other unprotected water sources are available to them within a closer access radius. Since the Dinajpur region has an ancient tradition of utilising water from manmade tanks, over 29,000 of which are scattered across Uttar and Dakshin Dinajpur districts, effective access and use of safe drinking water requires a change in the mindset and the behavioural patterns of the people.

Immunisation coverage is uniformly high in most parts of the district, and the block attainments for immunisation are clustered relatively closely around the average immunisation attainment for the whole district. Indicators for the incidence of safe deliveries are much lower on the whole, and also show wider variability between the Uttar Dinajpur. Since the ultimate target for all health & hygiene schemes is to achieve complete coverage, the present levels of coverage under rural sanitation and MCH schemes in the Uttar Dinajpur blocks are well short of the ultimate scheme targets. Nearly half of the deliveries that take place in the district occur in unsafe conditions, and approximately one in every six infants still does not receive adequate healthcare protection from Government immunisation schemes.

**Table: Health Sub-Index Computations for Uttar Dinajpur DHDR, 2010**

Blocks	2001 Population	2006 Projected Population	2006 Population covered by Sanitation Schemes	Sanitation Sub-Index	2006 Population covered by D/W Schemes	Safe Drinking Water Sub-Index
Chopra	223022	258722	49035	0.19	258722	1.00
Islampur	241951	276633	37443	0.14	276633	1.00
Goalpokhar-1	245430	276011	56318	0.20	276011	1.00
Goalpokhar-2	226472	262627	25797	0.10	262627	1.00
Karandighi	304986	359528	31647	0.09	353546	0.98
Raiganj	347108	394341	58270	0.15	393295	1.00
Hemtabad	118822	132778	75873	0.57	130796	0.99
Kaliaganj	190019	213786	38438	0.18	213786	1.00
Itahar	249541	285140	73358	0.26	283300	0.99
<b>U Dinajpur Rural</b>	<b>2147351</b>	<b>2458598</b>	<b>455516</b>	<b>0.19</b>	<b>2449383</b>	<b>1.00</b>
CD Blocks	2006 Estimated Live Births	2006 Estimated Target for Immunisations	2006 BCG/OP V/DPT /Measles Immunisations	Immunisation Sub-Index	2006 Attended Deliveries	Safe Delivery Sub-Index
Chopra	9293	37173	33479	0.90	6175	0.66
Islampur	9950	39802	31479	0.79	4966	0.50
Goalpokhar-1	9624	38498	35527	0.92	4399	0.46
Goalpokhar-2	9063	36253	27560	0.76	4240	0.47
Karandighi	12601	50406	42704	0.85	6832	0.54
Raiganj	11945	47778	38316	0.80	5806	0.49
Hemtabad	3947	15790	11704	0.74	2519	0.64
Kaliaganj	6110	24440	21298	0.87	5579	0.91
Itahar	8990	35962	31548	0.88	5038	0.56
<b>U Dinajpur Rural</b>	<b>81526</b>	<b>326102</b>	<b>273615</b>	<b>0.84</b>	<b>45554</b>	<b>0.56</b>

Source: Lead Authors' computations for Uttar Dinajpur DHDR, 2010

The health attainment index for the Uttar Dinajpur DHDR is computed as an equiweighted average of the four sub-indicators. Kaliaganj block with its relatively low population pressure and its direct access to a State General hospital [SGH] facility emerges at the head of the block rankings, with higher immunisation coverage and better access to safe delivery services playing a primary role in this achievement. Hemtabad emerges as the second-ranked block in terms of health service access because of similar factors, as well as its better sanitation coverage since it has a relatively high concentration of BPL families. At the opposite end of the scale, Goalpokhar-2 and Islampur perform poorly, primarily because of their large population loads and lower access to immunisation and safe delivery services.

**Table: Health Services Index Computations for Uttar Dinajpur DHDR, 2010**

CD Blocks	Sanitation Sub-Index	Safe Drinking Water Sub-Index	Immuni sation Sub-Index	Safe Delivery Sub-Index	Combined Health Services Index	Health Index Rank
Chopra	0.19	1.00	0.90	0.66	0.689	3
Islampur	0.14	1.00	0.79	0.50	0.606	8
Goalpokhar-1	0.20	1.00	0.92	0.46	0.646	5
Goalpokhar-2	0.10	1.00	0.76	0.47	0.582	9
Karandighi	0.09	0.98	0.85	0.54	0.615	6
Raiganj	0.15	1.00	0.80	0.49	0.608	7
Hemtabad	0.57	0.99	0.74	0.64	0.734	2
Kaliaganj	0.18	1.00	0.87	0.91	0.741	1
Itahar	0.26	0.99	0.88	0.56	0.672	4
<b>U Dinajpur Rural</b>	<b>0.19</b>	<b>1.00</b>	<b>0.84</b>	<b>0.56</b>	<b>0.645</b>	

Source: Lead Authors' computations for Uttar Dinajpur DHDR, 2010

However, unlike educational attainments in Uttar Dinajpur, these variations in healthcare coverage within the district cannot be identified closely either with the Raiganj SD blocks or the blocks under Islampur SD. Chopra and Goalpokhar-1 blocks in Islampur SD do better than Karandighi, Islampur and Goalpokhar-2 and are thus ranked in the third and fifth position in terms of overall health service accessibility, while Islampur and Goalpokhar-2 are pushed to the very base of the accessibility scale. On the other hand, while Kaliaganj and Hemtabad do well within Raiganj SD, the headquarters block of Raiganj Sadar performs surprisingly poorly in terms of health attainments and thus ranks seventh overall within the district, positioned just above Islampur and Goalpokhar. As the associated health sub-indicators reveal, Raiganj Sadar block has particularly low rates of sanitation coverage, followed closely by Itahar. Despite the proximity of the District Hospital [DH] at the headquarters city of Raiganj, access to safe deliveries is also limited within the block, chiefly because of the inadequate DH infrastructure relative to the high population load in the block. Since the block-wise health attainment rankings in Uttar Dinajpur are highly correlated with the extent to which safe delivery and sanitation services are accessible to the rural population, these emerge as key healthcare areas where positive interventions are needed within the district. Although immunisation coverage also needs to be improved substantially in the district to reduce IMR and improve rural child health situations, the gravity of this problems tends to be masked by the reliance on inaccurate ELA based targeting for UIP immunisation services. ELA can only work satisfactorily if the recording of life births in the district is complete and comprehensive. In the absence of statutory mechanisms for enforcing this, coupled with existing weaknesses in the ICDS and SHC health service delivery systems, as well as glaring shortages in SHC staffing in terms of male health assistants who have an independent role in expanding the outreach of the referral healthcare, birth recording and childcare is likely to remain weak in the rural areas of Uttar Dinajpur, leading in turn to overestimation of immunisation coverage and underestimation of IMRs, unless these deficiencies are speedily addressed.

### Current Economic & Livelihood Attainments in Uttar Dinajpur

The index for economic achievement in the Uttar Dinajpur blocks is devised around the highly acceptable premise that income attainments among the block population are opportunity based, and can therefore be made visible through close examination of the work participation patterns of the population concerned. While work participation rates [WPRs] define the size of the economically active population in each block, the ratio of main workers to total workers increases the sensitivity of the index to the quality of livelihood opportunities and thus to the duration of work engagements. The ratio of other workers to main workers is sensitive to the extent to which livelihood opportunities have diversified outside traditional agriculture in Uttar Dinajpur, which by long tradition has been a predominantly agricultural district. The livelihood opportunities index in the table is the unweighted average of these three work participation attributes.

**Table: Livelihood Opportunities Index Computations for Uttar Dinajpur DHDR, 2010**

CD Block	2001 Population	2001 Total Workers	2001 % WPR	2001 % Main Workers to Total Workers	2001 % Other Workers to Main Workers	Livelihood Opportunities Index	Livelihood Index Rank
Chopra	223022	70122	31.4	86.1	50.8	<b>0.561</b>	1
Islampur	241951	79250	32.8	82.3	27.9	<b>0.477</b>	4
Goalpokhar-1	245430	108482	44.2	71.9	19.4	<b>0.452</b>	7
Goalpokhar-2	226472	75330	33.3	77.1	20.5	<b>0.436</b>	9
Karandighi	304986	124147	40.7	73.0	33.7	<b>0.492</b>	2
Raiganj	347108	144452	41.6	77.3	28.2	<b>0.491</b>	3
Hemtabad	118822	48049	40.4	72.9	22.7	<b>0.454</b>	6
Kaliaganj	190019	86153	45.3	74.9	19.7	<b>0.467</b>	5
Itahar	249541	115773	46.4	65.4	23.3	<b>0.450</b>	8
<b>Uttar Dinajpur Rural</b>	<b>2147351</b>	<b>851758</b>	<b>39.7</b>	<b>75.1</b>	<b>27.6</b>	<b>0.474</b>	

Source: Lead Authors' computations for Uttar Dinajpur DHDR, 2010

Agriculture is still the principal source of livelihoods for the population of Uttar Dinajpur, even though the size of landholdings is generally small and the extent of landlessness is high. In line with the recent experience in many other districts across West Bengal, substantial declines in the absolute number of cultivators have occurred in most Uttar Dinajpur blocks, with the exception of Kaliaganj and Itahar, in the former of which the increase in the number of cultivators has been substantial. Meanwhile, because of exceptionally high growth of population over the past few decades, livelihood pressures have intensified considerably. The general dearth of work opportunities outside agriculture are reflected therefore in sharp increases in the number of agricultural labourers through most of the district, except for Chopra and Goalpokhar-1 where the increase has been small, either because of agricultural stagnation (Goalpokhar-1) or because of the switchover from farming to plantation agriculture (Chopra). Gradual intensification of regional agriculture through widespread induction of irrigation and improved agricultural technology has permitted the main rice-growing blocks that spread northwards across Raiganj SD into Karandighi, Goalpokhar-2 and Islampur to absorb sizeable proportions of agricultural labourers in main work because of increased cropping intensity coupled with the highly labour-intensive nature of paddy cultivation. There have nevertheless been largescale

increases in the number of marginal workers in the continuous belt stretching from Itahar through Raiganj to Karandighi, where agricultural saturation is already very high. While in Hemtabad and Kaliaganj, the increase in marginal workers has been of a lesser order, because of lower population pressure overall, the other blocks in Islampur SD have all experienced growing outmigration of rural workers because of the inability of rural livelihood opportunities to grow apace with population numbers.

These combined trends are clearly visible in the variation in WPRs between the Uttar Dinajpur blocks. Chopra, Islampur and Goalpokhar-2 all have large block populations, but report substantially lower work participation than the rest of Uttar Dinajpur. Kaliaganj and Itahar, which grow immense quantities of rice, report much higher WPRs than the remainder of the district. Karandighi and Raiganj both have high population concentration but report WPRs exceeding 40 percent. While the proportion of workers who have been able to secure main work opportunities is generally high in all Uttar Dinajpur blocks, because of the dominance of agriculture, Chopra and Islampur offer considerably higher opportunities for main work participation, so that the numbers of marginal workers in these blocks is much lower compared to the rest of Uttar Dinajpur. Experiencing the highest livelihood pressures, Itahar stands at the other extreme, with over a third of its workforce engaging in marginal work. Along with Chopra and Islampur, Karandighi and Raiganj offer more diversification in non-farm work opportunities. While in Chopra, the main reason behind this lies in the rapid spread of bought-leaf tea factories and associated small tea plantations, livelihood diversification in Raiganj, Islampur and Karandighi is also affected by regional urbanisation trends around the municipal towns located within them, and by the proliferation of beedi manufacturing activities in Karandighi. Kaliaganj, Goalpokhar-1 and Goalpokhar-2 stand at the opposite extreme, so far with little visible diversification away from agriculture. In Kaliaganj, this does not pose an immediate problem because of its lower relative population and because of its highly productive rice-based farming economy. On the other hand, in the two Goalpokhar blocks, the livelihood situations border on desperation, accounting for poverty and high seasonal outmigration from these two blocks. In Itahar, the livelihood situation is similarly desperate because of the sizeable density of the rural population, and high work participation and greater diversification to non-farm livelihood activities is unable to relieve these pressures.

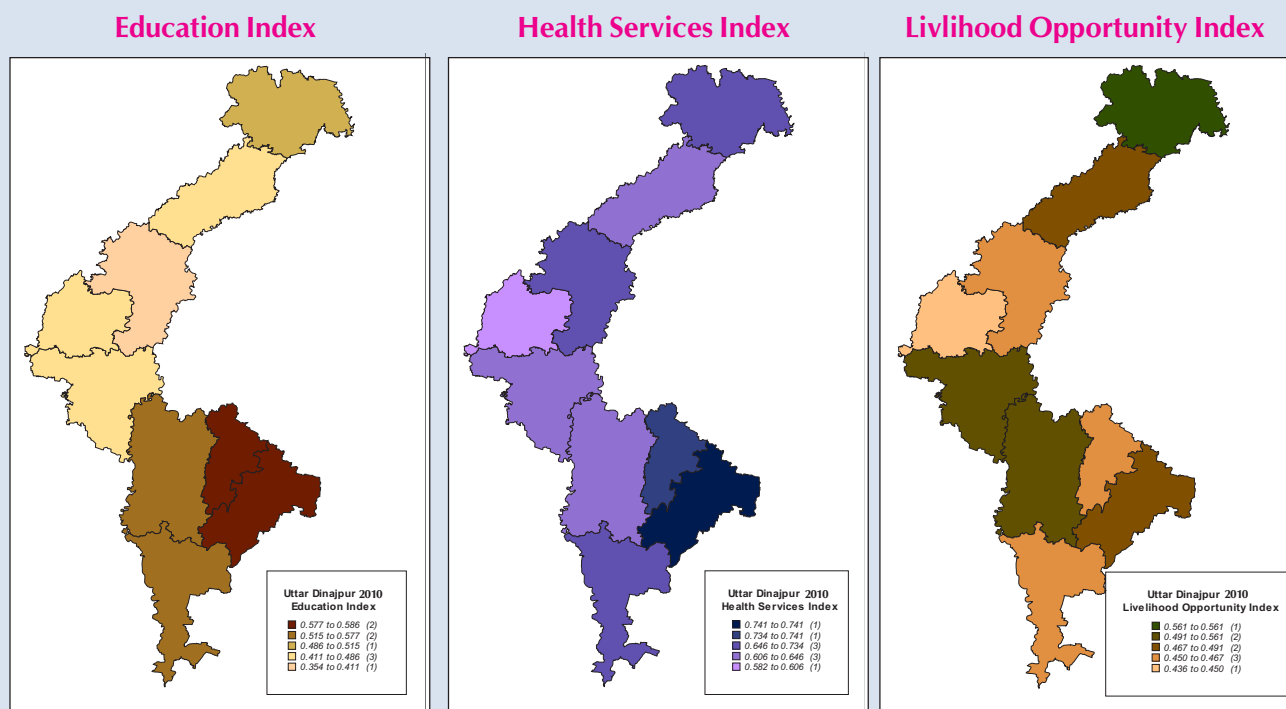
Block rankings for the combined livelihood opportunities index closely follow these distributive patterns. Chopra stands first in terms of economic attainments, because of the combination of greater main work participation and higher rates of diversification to non-farm activities. The marked contrast between its livelihood index value of 0.561, against index values for the other Uttar Dinajpur blocks as well as the index for rural Uttar Dinajpur as a whole, show that it is well and truly ahead of the rest of the district in terms of livelihood opportunities. The clustering of livelihood index values in the other blocks within the relatively narrow range of 0.436-0.492 shows that the principal economic constraints that operate within the district today are the high degree of landlessness, the small sizes of most farming operations, coupled with the overwhelming pressure on agriculture for livelihoods. Since the distributive pattern in livelihood indices across the Uttar Dinajpur blocks is closely correlated with the degree of diversification in livelihood activities, clear indication is obtained that the economic future of the rural residents of Uttar Dinajpur will depend strongly on the ability of the district to create viable livelihoods outside agriculture, through modern knowledge inputs that impart new skills to the district population and enhance its earning capabilities.

### Overall Human Development in Uttar Dinajpur

The broad regional distributions of education, healthcare and livelihood attainments are summarised visually in the three dimension index maps. Regional disparities between the Raiganj SD and Islampur SD blocks are strongest in the case of educational attainments, with all blocks in Islampur SD being educationally deprived in comparison to Raiganj SD. Healthcare disparities are distributed more unevenly between the

two sub-divisions, with the populous blocks of Raiganj, Karandighi and Islampur faring poorly compared to most other Uttar Dinajpur blocks. Goalpokhar-2, which ranks lowest in terms of health service accessibility, forms a separate category by its own, suffering serious deficits in access to sanitation and safe deliveries besides lagging behind substantially in immunisation coverage. Except in Chopra, which stands apart from the other Uttar Dinajpur blocks in terms of the new access it offers to livelihood opportunities outside the agricultural sector, block-level livelihood differentials within Uttar Dinajpur are not as wide as those seen in the case of education and health attainments. The extent of livelihood pressure and work participation in the blocks is driven by population growth and migration. Nevertheless, although relative differences are small, the continuous cluster of blocks from Itahar to Karandighi offers relatively better livelihood access because of regional contiguity. While Kaliaganj and Islampur follow in sequence in the development periphery, the other Uttar Dinajpur blocks show up as definite gap areas in the provision of equitable livelihood opportunities. Among them, Goalpokhar-2 shows significant levels of deprivation in all three human development dimensions. It is thus identified as the subregion of Uttar Dinajpur where the human development situation is most critical.

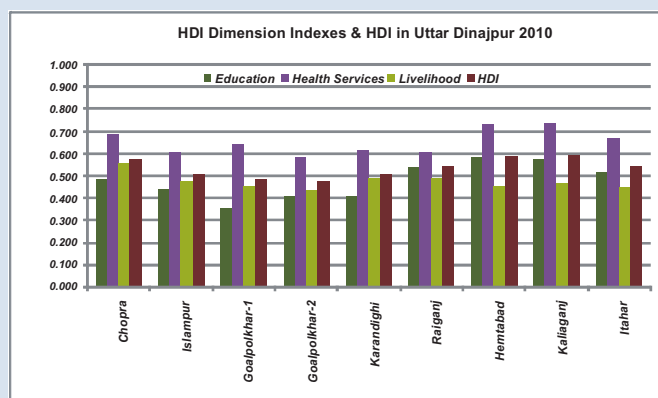
**MAP: Spatial Comparison of Human Development Dimensions across Uttar Dinajpur**



The existence of such livelihood gaps within the economic landscape of Uttar Dinajpur also offers strong evidence of persisting lack of integration within the district economy. This originates partially from spatial factors such as the peculiarly elongated shape of the district, the history of its administrative constitution and the configurations of marketing and transportation networks which still tie the local economy of the Islampur region to neighbouring parts of Bihar. Livelihood development within the Goalpokhar cluster is currently affected by its proximity to the city of Kishanganj, to which this cluster has traditionally served as a feeder region. However, rapid economic development around the new municipality of Dalkola can probably correct this regional imbalance within the foreseeable future, if proper communications policies and assembly market planning are included in an integrated perspective for the development of Dalkola as a new urban complex within Uttar Dinajpur.

**Table: Modified Human Development Index [HDI] Computations for Uttar Dinajpur DHDR, 2010**

CD Blocks	Combined Education Index	Combined Health Services Index	Livelihood Opportunity Index	Human Development Index [HDI]	HDI Rank
Kaliaganj	0.577	0.741	0.467	<b>0.595</b>	<b>1</b>
Hemtabad	0.586	0.734	0.454	<b>0.591</b>	<b>2</b>
Chopra	0.486	0.689	0.561	<b>0.579</b>	<b>3</b>
Raiganj	0.542	0.608	0.491	<b>0.547</b>	<b>4</b>
Itahar	0.515	0.672	0.450	<b>0.546</b>	<b>5</b>
Islampur	0.438	0.606	0.477	<b>0.507</b>	<b>6</b>
Karandighi	0.411	0.615	0.492	<b>0.506</b>	<b>7</b>
Goalpokhar-1	0.354	0.646	0.452	<b>0.484</b>	<b>8</b>
Goalpokhar-2	0.411	0.582	0.436	<b>0.476</b>	<b>9</b>
<b>Uttar Dinajpur Rural</b>	<b>0.471</b>	<b>0.645</b>	<b>0.474</b>	<b>0.530</b>	



**Table: Index Ranks of Uttar Dinajpur Blocks, 2010**

CD Blocks	Education Index Rank	Health Services Index Rank	Livelihood Opportunities Index Rank	Human Development Index Rank
Kaliaganj	2	1	5	1
Hemtabad	1	2	6	2
Chopra	5	3	1	3
Raiganj	3	7	3	4
Itahar	4	4	8	5
Islampur	6	8	4	6
Karandighi	7	6	2	7
Goalpokhar-1	9	5	7	8
Goalpokhar-2	8	9	9	9

Source: Lead Authors' computations for Uttar Dinajpur DHDR, 2010

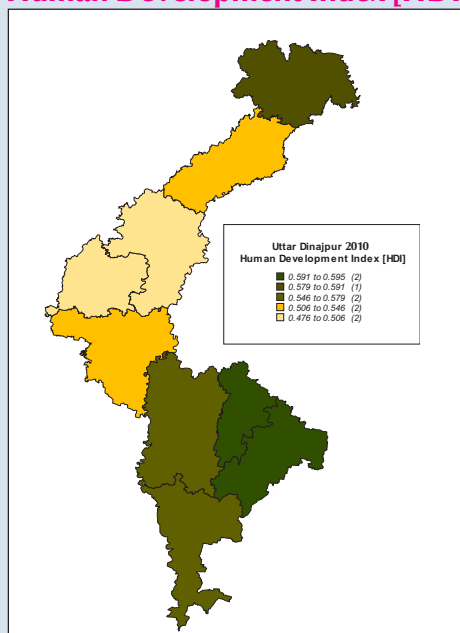


Modified HDI indices for the Uttar Dinajpur block, expressed as the simple average of these three HD dimensions, measure and rank the composite level of human development attained by each block. While Kaliaganj and Hemtabad blocks emerge at the head of the district, helped strongly by favourable healthcare and education attainments, Chopra is the sole block under Islampur subdivision that has done relatively well. Although, like the other Islampur SD blocks, Chopra too suffers from educational deprivation, it ranks third in terms of HDI standing well clear of the other Uttar Dinajpur blocks in the availability and diversification of livelihood opportunities, while also offering equitable health access. Raiganj and Itahar blocks which follow in the fourth and fifth positions in terms of their HDIs, lag well behind Kaliaganj and Hemtabad in their education and health attainments even though the livelihood indices in the four Raiganj SD blocks are clustered fairly close together. With better levels of livelihood diversification prevailing in the contiguous Raiganj-Itahar region which forms a major communications axis between the cities of Raiganj and Malda, workers shifting away from agriculture to other livelihood activities tend to congregate in this region, leading with time to higher population pressure on the education and healthcare infrastructure. In contrast, the neighbouring blocks of Kaliaganj and Hemtabad have smaller block populations and can thus serve healthcare and educational needs more equitably, enabling them to advance to the head of the district in terms of overall human development.

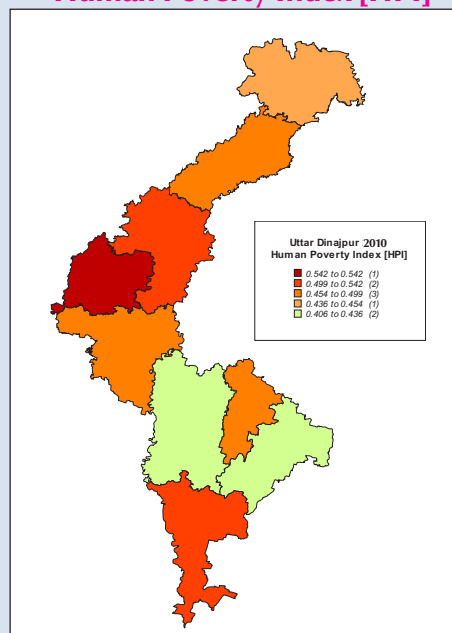
The four blocks that lag behind in terms of overall levels of human development are all located in Islampur SD. While Karandighi does relatively better among them in terms of access to livelihood opportunities, it suffers from relative deficits in education and healthcare access, consequently allowing Islampur to move ahead to the sixth overall position because of relatively better educational access. Since the HDIs for Goalpokhar-1 and Goalpokhar-2 lag well behind the district HDI average of 0.530, strong evidence emerges of the depth of human development deprivation that exists within these two blocks. Goalpokhar-1 offers a peculiar instance where very high levels of educational deprivation are partially offset by more equitable access to health services and livelihood opportunities, enabling it to occupy the eighth position in Uttar Dinajpur in terms of overall human development. With an HDI of 0.476, Goalpokhar-2 lags far behind all other Uttar Dinajpur blocks in terms of all human development dimensions, except for education attainments where it is placed above Goalpokhar-1 in the eighth position. With the human development deficits between Goalpokhar-2 and the first-ranked Uttar Dinajpur block being widest in the case of education and health service access, the importance of setting new priorities in Uttar Dinajpur district that can strengthen the provision of equitable and improved education and rural healthcare to these highly deprived blocks cannot be overemphasised.

## MAP: Spatial Comparison of Human Development & Human Poverty across Uttar Dinajpur

### Human Development Index [HDI]



### Human Poverty Index [HPI]



### Poverty & Deprivation within Uttar Dinajpur

Computation of block-level human poverty indices [HPIs] for Uttar Dinajpur follows the procedure developed in the *Malda DHDR 2007*, and is thus a modification of the HPI used by the UNDP. Since the HPI is an inverse-valued coefficient that indices current levels of human deprivation, it is built entirely from negative indicators such as distributional inequalities and the persistence of human vulnerability and poverty. Since adaptations have to be made to the computational procedure to fit HPIs to the vulnerability indicators commonly available in the block-level database where income-based information is not available, human poverty in the modified HPI can be understood as a reflection of human development deprivation. Once again, since the indicators used for block-level HPI computations are census based, they cannot be updated till the next census is conducted. Accordingly, the HPIs for the Uttar Dinajpur blocks draw on data from the 2001 Census and from the block-wise BPL data available from the *Rural Household Survey [RHS]* conducted in 2002.

As seen in the HPI table, the attributes included in the HPI computation are all negatively weighted, i.e. high values for these attributes define high levels of deprivation. While the data drawn from the 2001 Census include block-level illiteracy rates, the proportion of non-working population, the proportion of landless agricultural workers among main workers and of marginal workers among the total block workforce. High levels for all of these would coincide with the diminution of earning capabilities and opportunities, the degree of assetlessness and the lack of regular work, thus closely reflecting the degree to which distributional inequities and income poverty are present within the block population. Additionally, since rural poverty is a group attribute affecting the entire rural household rather than specific household members, RHS data on the existing concentration of BPL families in the Uttar Dinajpur blocks are also included in the HPI computation. As the BPL definition is based upon multiple attributes of household poverty extending beyond income poverty, a modified HPI index based on these variables is able to capture the presence of human vulnerability and deprivation in the Uttar Dinajpur blocks which prevent certain population segments from leveraging the opportunities that have been created by human development.

**Table: Modified Human Poverty Index [HPI] Computations for Uttar Dinajpur DHDR, 2010**

CD Block	2001 Population	2001 %Illiterates	2001 % Non-Workers	2001 %Agricultural Labourers to Main Workers	2001 % Marginal Workers to Total Workers	2002 % Rural Families in BPL category	Human Poverty Index	HPI Rank
Goalpokhar-2	226472	65.1	66.7	51.0	22.9	65.3	<b>0.542</b>	1
Itahar	249541	51.9	53.6	47.5	34.6	64.9	<b>0.505</b>	2
Goalpokhar-1	245430	67.4	55.8	39.2	28.1	59.2	<b>0.499</b>	3
Hemtabad	118822	42.6	59.6	50.3	27.1	57.0	<b>0.473</b>	4
Karandighi	304986	61.6	61.1	42.5	27.0	37.2	<b>0.459</b>	5
Islampur	241951	60.8	67.2	40.6	17.7	40.7	<b>0.454</b>	6
Chopra	223022	55.7	68.6	29.1	13.9	50.6	<b>0.436</b>	7
Raiganj	347108	47.9	60.1	46.2	22.7	27.0	<b>0.408</b>	8
Kaliaganj	190019	45.2	54.7	42.9	25.1	35.4	<b>0.406</b>	9
<b>Uttar Dinajpur Rural</b>	<b>2147351</b>	<b>57.1</b>	<b>50.1</b>	<b>38.6</b>	<b>25.1</b>	<b>46.7</b>	<b>0.435</b>	

Source: Lead Authors' computations for Uttar Dinajpur DHDR, 2010

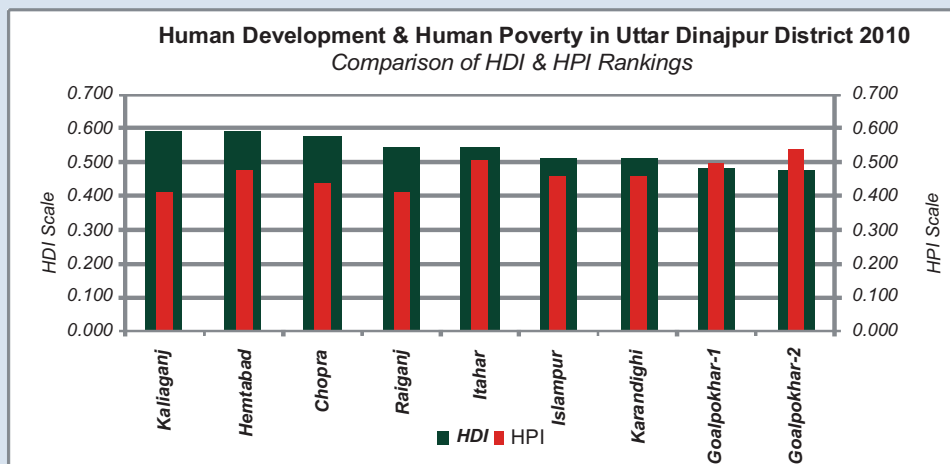
The modified HPI index thus draws special focus to socially and economically deprived sections in Uttar Dinajpur who have not benefited equitably from the process of human development. Even within blocks that show accelerated levels of human development, there are development victims who belong to marginalised categories within the block population and continue to live in poverty. The modified HPI indicators measure their presence within the Uttar Dinajpur blocks, noting that social sections living below the threshold of poverty can suffer educational deprivation, have less access to healthcare and nutrition, and marginal or no access to improved means of livelihood, etc. Since the block-level HDIs and HPIs are thus formulated on different intuitive premises, any combination of the two is theoretically possible. In certain blocks, high levels of human deprivation may coincide with acceptable levels of human development because of social exclusion among marginal segments. In others with greater distributional equity, human poverty may vanish with human development. In still others, human poverty may be the primary cause for low levels of human development, because of the concentration of marginalised segments within the block population. The HPI table, which portrays these characteristics for rural Uttar Dinajpur, can be analysed comparatively with reference to the earlier block-rankings in the HDI table.

With the highest levels of human development in rural Uttar Dinajpur, Kaliaganj block with an HDI of 0.595 also records the lowest HPI of 0.406. It is evident that the high attainments in terms of human development attributes are inclusive in nature, and have, therefore, been able to lower the concentration of poverty in the block. In contrast, second-ranked and contiguous Hemtabad, with an HDI of 0.591 that is very close to that of Kaliaganj, ranks fourth in terms of HPI, implying a higher concentration of poverty and partial exclusion of the poor from the human development gains recorded by other economic sections. Third-ranked Chopra, located far to the north, has been able to ensure greater equity in human development and lower concentration of poverty, therefore, ranking seventh in terms of HPI. The headquarters block of Raiganj, which ranked fourth in terms of HDI but offered the best livelihood opportunities in rural Uttar Dinajpur, accordingly, has a low concentration of poverty and achieves the second-lowest HPI of 0.408,

very close to that of Kaliaganj. In contrast, poverty and exclusion levels are very high in adjacent Itahar, which ranks fifth in terms of HDI but ascends to the second rank in terms of HPI.

The four remaining blocks cover most of Islampur SD, with the exclusion of Chopra. Among these blocks, Islampur and Karandighi rank sixth and seventh in terms of human development, with respective HDIs of 0.507 and 0.506 that indicate the existence of a wide human development gap between them and the lowest ranked Raiganj SD block of Itahar with an HDI of 0.546. However, in terms of the concentration of human poverty, they occupy a more favourable position than Itahar and rank sixth and fifth respectively in terms of HPI. The two Goalpokhar blocks are placed in the least favourable positions in Uttar Dinajpur, both because of low levels of human development and high concentration of exclusion and human poverty. Goalpokhar-1 nevertheless does better than Itahar in terms of HPI. Goalpokhar-2, on the other hand, is incontrovertibly the least developed block of Uttar Dinajpur district, with the lowest levels of human development and the highest concentration of human poverty.

While Goalpokhar-1 and Goalpokhar-2 thus form a regional cluster with very low human development in rural Uttar Dinajpur, Kaliaganj and Raiganj form a pocket of low human poverty. Exclusion and human poverty is otherwise widely present in the other blocks of Uttar Dinajpur, and is particularly severe in Goalpokhar-2 and Goalpokhar-1 because of low levels of human development. In Islampur SD, Chopra is the only block which records relatively low levels of human poverty, because the access to better livelihoods there has been largely inclusive. The other Islampur SD blocks all record high levels of human development inequity and human poverty, making the cluster of four blocks between Islampur and Karandighi the least developed region of Uttar Dinajpur district.



### Evolving Human Development Strategies for Uttar Dinajpur District

After block-level indexing of human development and human poverty in Uttar Dinajpur had clearly identified leading and lagging regions within the district, detailed presentations of the Draft Uttar Dinajpur DHDR were made at separate meetings held under the chairmanship of the Sabhadhipati of the Uttar Dinajpur Zilla Parishad, before the District Planning Committee [DPC] and an Expert Group comprising all members of the DHDR Core-Groups and across-section of other stakeholders. Since as a constitutional authority, the DPC is statutorily empowered to direct the visioning exercise for Uttar Dinajpur district as a whole, and also to formulate and prioritise the District Plan by consolidating individual plans put up by the Gram Panchayats, Panchayat Samitis, Urban Local Bodies and Government line departments, the purpose of these consultations was to

- (a) acquaint the DPC and the Expert Group with current human development situations in the district as reflected in the DHDR, and
- (b) seek firm direction from the DPC for the synthesis of a human development strategy for the district of Uttar Dinajpur to alleviate these current problems.

The issues flagged during these meetings with the DPC and the DHDR Core Groups constitute the basic foundation for human development strategy in Uttar Dinajpur. The core strategic elements first require the district to confront the historic deprivations inherited from multiple alterations in its administrative boundaries after 1947, which are responsible today for glaring regional disparities between its two sub-divisions. Next, the present educational inequalities within the district must be addressed in order to equalise educational opportunities across all blocks, thus enhancing the capabilities and functioning of the resident population. The third element of the human development strategy requires rapid upgradation of physical and social infrastructure, inclusive of healthcare, so that the people of Uttar Dinajpur are assured of the same entitlements that are available in the other districts of West Bengal. The fourth strategic element requires the amelioration of existing human poverty through the creation of equitable livelihood opportunities for the large concentration of socially backward groups that reside within Uttar Dinajpur. The fifth element of the human development strategy calls for substantive improvements in gender security, through a process which progressively empowers women in Uttar Dinajpur, enabling them to participate in a fuller way and on equal terms in social and economic life. The issues that need to be resolved in each of these five strategic categories are outlined below, along with potential approaches that may be applied in the case of Uttar Dinajpur.

#### **A: Rectifying Longterm Impacts of Administration Reorganisation**

Unequal development has long been the bane of the Uttar Dinajpur region, both when it was part of the erstwhile West Dinajpur district, and later since 1992 when it was reconstituted as a separate district. Because of the need to rebuild the administrative infrastructure in Uttar Dinajpur after each readjustment of district boundaries, many development activities in the district had been urban-centred, thus, leading to unbalanced development between the towns and villages. The Islampur region has thus suffered from an initial development lag which was never quite bridged. With time, this gap has widened to the extent that the two subdivisions of Uttar Dinajpur district now present widely diverging human development profiles. This basic problem is compounded by the fact that the district has a diverse multicultural complexion, with the Islampur region showing marked concentration of underprivileged communities and linguistic groups, including the SC, ST and Muslim communities as well as significant clusterings of Urdu and Hindi speakers. For equitable development of all cultural and linguistic groups residing within the district, it is imperative that these development disparities between the two sub-divisions be removed.

Although the separation of Uttar Dinajpur from Dakshin Dinajpur was intended to focus development activities towards the amelioration of regional disparities within the newly constituted district, the process of administrative bifurcation inevitably entailed the restructuring of departments and development programmes, creating another slowdown within the development processes experienced by the new district. With the total quantum of development funds being scarce, this restructuring is still not complete as of date. A particular instance where the impact of district bifurcation can be seen to have been particularly strong arises in the case of the Raiganj District Hospital. Originally a 168-bedded subdivisional hospital under the jurisdiction of Balurghat District Hospital in erstwhile West Dinajpur, the facility was redesignated as a District Hospital in 1992 after the creation of Uttar Dinajpur district. However, neither the overall bed-strength nor the complement of doctors and allied health personnel has expanded commensurately over the subsequent 17 years, making it difficult for Raiganj DH to cater to the entire health needs of the

district of Uttar Dinajpur satisfactorily. Many essential health services, e.g. blood bank facilities, etc. are still inadequately provided, leading to overall deficiencies in healthcare provision in Uttar Dinajpur. At BPHC and hospital level, many health facilities in Uttar Dinajpur still draw in additional patient-loads from adjoining villages in Bihar, and from the extreme western portions of Dakshin Dinajpur where the boundaries of the erstwhile Itahar block were readjusted during the bifurcation of Uttar & Dakshin Dinajpur. Similarly, as a number of patients from the two Goalpokhar blocks attend hospital facilities in contiguously situated Kishanganj - now a district headquarters within Bihar - and Siliguri in Darjeeling district, development of health infrastructure in the Goalpokhar region as well as through most of Islampur SD has consequently been slow. However, in many such cases, patients have to commute considerable distances to avail of hospital care, adding substantially to the time and costs of seeking and availing healthcare.

Following the bifurcation of Government departments between Uttar and Dakshin Dinajpur, other deficiencies persist in departmental infrastructure and personnel. In certain cases, such as the instance of Bureau of Applied Economics & Statistics [BAE&S], the concerned regional officer has to hold dual charge for both districts. In the case of the Public Health Engineering [PHE] department, which executes drinking water schemes across the district, staffing deficiencies have prevailed since the bifurcation of the department in 1992. The District Industries Centre [DIC] lacks a sufficient number of designated industrial estates, where the industrialisation of the district can be aggressively pursued. Even after the reorganisation of the district, the expansion of the network of SHCs and anganwadi centres in Uttar Dinajpur had been slow because of the deficiency of infrastructural funds. Meanwhile, with a large quantum of funds being expended on civil works to upgrade the administrative infrastructure at the new district headquarters at Karnajora, there has been an overall shortage of capital funding for other development projects that need to be taken up urgently in other parts of Uttar Dinajpur.

The obvious planning interventions that can be made in this respect by the Uttar Dinajpur DPC are

- (i) to articulate such persisting problems at the foundational stage of the District Plan,
- (ii) to quantify the resulting service disparities that adversely affect development in each block,
- (iii) to seek full funding support from the State Government for removing these longstanding lacunae which impact upon the overall human development profile of the district.

A time-bound course of action would also need to be defined to resolve the physical and administrative deficiencies within a fixed timeframe, based on dovetailed perspective planning by the District Administration and the line departments, and the execution of all outstanding development works on priority basis. At the end of the defined period, all infrastructural and administrative facilities within Uttar Dinajpur should have been brought to par with those available in every other district in West Bengal.

Removal of existing regional disparities between Islampur SD and Raiganj SD could proceed apace, by reprioritising the regional thrust of the District Plan. In particular, this would mean that the human development needs of the backward blocks under Islampur SD would need to be prioritised ahead of the needs of the more developed blocks in Raiganj SD, till the intrinsic disparities between the two subdivisions have largely disappeared. While a regional development strategy of this nature could involve some local contentiousness, it needs to be understood that the development lag between the two subdivisions initially appeared because of adherence to the opposite scale of priorities, which for a long time gave precedence to the development needs of Raiganj SD over those of the Islampur region. Because of the high concentration of backward social sections within the Islampur blocks, restoration of regional equity is the only way of advancing overall human development attainments across Uttar Dinajpur district as a whole.

**B: Redressal of Educational Inequalities**

With primary school enrolments in Uttar Dinajpur showing a steadily rising trend over the past decade, the basic problem affecting educational attainment in the district is the high dropout rate after the primary stage. Improvement in the retention rates of students within the educational system through the years to come can thus be identified as a major human development target for Uttar Dinajpur district. Considerable imbalance exists currently between the capacity and outturn of the primary educational system and future opportunities for pursuing education through its middle and secondary stages. This forces substantial involuntary dropout of students from the formal system beyond the Class IV-V stage. Accessibility of rural schools is still a major problem in Uttar Dinajpur, with many students residing in the Islampur SD blocks having to travel distances of 4-6km to attend upper primary and secondary school. Since this problem particularly affects the enrolment of rural girls, at least two State-run hostels for Muslim and ST girls need to be established within Islampur SD to improve the retention of girl students within the secondary education system. Separate girls' high schools also need to be set up to improve the retention of girls at Majhiali and Haptiagachh, which are located at a considerable distance from the block headquarters at Chopra.

Several blocks in Islampur SD, where there has been a marked rise in primary enrolments, now also show unmistakable evidence of crowding and congestion, in the form of very high pupil-teacher ratios. The inevitable consequence of this is a deterioration in the quality of instruction. Strengthening of the educational infrastructure in Uttar Dinajpur will thus require the establishment of a substantial number of new schools, accompanied by the extension of classrooms and new teacher recruitments. Since the district has suffered from considerable educational weaknesses in the past, this new development effort will have to be made in a highly concerted manner over a short timeframe, necessitating the mobilisation of adequate State funding for uniform extension of educational opportunities across the rural areas of the district. Although the SSKs and MSKs functioning in Uttar Dinajpur district at present offer a low-cost alternative for universalising basic education, they cannot substitute in the long run for fully-fledged formal institutions. With high rates of population growth and consequent widening of the population segment in the younger age-groups, the demand for education is likely to increase even more through the years to come. Thus a comprehensive upgradation of the school infrastructure is strongly justified.

The necessity of expanding the teaching strength at primary and upper primary schools also entails parallel expansion in the intake capacity of teacher-training institutions. Since any new training institutions would have to meet strict NCTE norms, substantial investments would have to be made on these new facilities, so that the future staffing needs of the district school system could be fully met. To realise all these social objectives simultaneously, the District Planning Committee [DPC] at Uttar Dinajpur would need to formulate a medium-term perspective plan for upgrading the educational infrastructure in the district, and for ensuring that the educational aspirations of students belonging to backward blocks are fulfilled.

Because of the overall dearth of college institutions in the district, opportunities for pursuing under graduate education after the Higher Secondary stage are also limited. With most colleges being clustered around the district headquarters and adjoining Kaliaganj and Itahar blocks, pressure on the college system is highest in Islampur SD, where school enrolments and completion rates have increased substantially over the recent decades. Establishment of a general college at Dalkola in 1995 has not adequately relieved the situation. Given the potential student intake as well as the difficulties of internal communication within the subdivision, another college urgently needs to be established between Goalpokhar and Chakulia.

A large number of high school and College students in Uttar Dinajpur are first-generation learners, whose families have hitherto lacked an educational environment. Hence, career guidance centres need to be established at the school institutions to counsel them on their future choice of subjects and career options. Uttar Dinajpur still offers very limited avenues for vocational education. Since a growing proportion of the

district population will be school-literate in the near future, employment opportunities outside agriculture would have to expand commensurately. Thus the number of technical training institutions and polytechnics would also need to expand substantially, in order to equip non-collegiate students with the technical skills that would enable them to secure alternative employment. To achieve this, a new polytechnic or ITI could be established at Dalkola, in addition to the technical institute due to commence at Islampur from 2010.

The system of *madrasah* education in Uttar Dinajpur fills a vital gap within the district educational system, serving a vast region of Islampur SD with high minority concentration, where the system of State-aided schools is at present inadequate. The proliferation of unrecognised *madrasahs* through this region reflects the growing demand for education among the minority community in an area so far characterised by low literacy. A total of 1888 unregistered *beedi* manufacturing units now function within the district, directly employing 3687 workers and engaging many others - mostly women - in the home-based activity of binding *beedis*. The high incidence of child labour had previously been a serious problem in the Muslim-dominated areas of Uttar Dinajpur, because of high levels of landlessness and poverty among the Muslim population. Under the National Child Labour Project [NCLP], this has been partially ameliorated by establishing 45 NCLP schools, primarily for the children of *beedi* and brickfield workers. However, for NCLP to have a salutary impact on the child labour profile across the district, at least 200 NCLP schools need to be established in Uttar Dinajpur to cater to the combined educational needs of the Muslim, SC & ST communities, among whom landlessness and poverty is generally high.

In the Karandighi region, the recent proliferation of *beedi* binding has enhanced family incomes among the Muslim community, followed by greater demand for education. Enrolment of girl children at the *madrasahs* is thus particularly high, touching 65 percent at the Rahatpur High Madrasah. Many children belonging to the SC & ST communities also enrol at the *madrasahs* after completing their primary education elsewhere. Since there is an overall shortage of upper primary schools under the Government system, the *madrasahs* in the district which generally integrate primary with upper primary and secondary education provide an alternative recourse. However, since Government assistance in support of *madrasah* education is only available to Junior High and High *madrasahs*, the proliferation of unrecognised *madrasahs* at the primary stage is largely unmonitored. Given the vital importance that the *madrasah* system holds for education in Uttar Dinajpur, the Government policy in this regard needs to be reconsidered so that the State-recognised *madrasahs* can gradually emerge as an alternative system extending comprehensive education from the primary to the secondary and higher secondary stage.

Although the Islampur SD areas in Uttar Dinajpur have a substantial Urdu and Hindi speaking population, low access to Urdu-medium Government schools is an important cause for the proliferation of *madrasah* education in the Muslim-dominated areas of the district. However, since few high schools and collegiate institutions in Uttar Dinajpur have provisions for teaching Urdu, the scope for higher education for Urdu-speakers is limited. While more Urdu and Hindi medium schools need to be established in Uttar Dinajpur, separate focus also needs to be laid on procuring adequate supplies of textbooks in these languages, and on the recruitment of an adequate number of Urdu and Hindi speaking teachers through the School Service Commission [SSC] for posting at the Government schools located within Islampur SD. A second step in redressing this problem would be to establish an Urdu and a Hindi college in Islampur SD, with academic support drawn from the West Bengal Urdu and Hindi Academies. This would do a lot to ease the problems currently faced by Urdu and Hindi speakers in the district, who presently have to go to Bihar to pursue higher education.



### **C: Improvements in Physical and Health Infrastructure**

With an unfavourable geographical location that straddles a long international border and the truncation of its transport and communications network as a result of Partition and subsequent administrative reorganisation, Uttar Dinajpur still faces serious shortages in physical infrastructure that tell on its development levels and social welfare performance. Both in the headquarters sub-division of Raiganj where many sub-divisional facilities have still to be upgraded fully to district-level, and in Islampur SD where the transferred areas still depend on adjoining Kishanganj in Bihar for major communication linkages, these infrastructural limitations ultimately show up in the form of regional human development deficits.

Although a large number of rural roads in Uttar Dinajpur have recently been surfaced with black-tops, drawing upon PMGSY support, the road network in the district will have to be upgraded and expanded substantially for the rural economy to develop adequate market linkages. The dearth of communications is especially felt within Islampur SD, where the principal highway link skirts the western fringe. Since four-laning of the highway and its ultimate conversion into a toll-road will seriously affect the development of internal communications, adequate investment should also be made to upgrade the parallel 'Bengal-to-Bengal' roadlink which has the potential to draw internal traffic from the underserved villages located along the eastern border of the district.

While existing deficiencies in educational and healthcare infrastructure in Uttar Dinajpur also to some extent reflect the inheritance from the administrative reorganisations periodically experienced by the district, subsequent provision of these amenities has not been evenly spread between the two subdivisions, leading to critical social infrastructure bottlenecks in the five Islampur blocks. The physical isolation of these blocks from the principal urban centres in Uttar Dinajpur also impedes the posting of requisite personnel, as a result of which the rural PHCs at Kanki and Torial currently lack resident medical officers. Laboratory facilities at rural PHCs are similarly weak. Because of difficulties in recruiting adequate male staff willing to serve as health assistants at the rural SHCs, the programme of institutionalised healthcare visits to rural households served by the SHCs suffers, considerably weakening health monitoring as well as the referral healthcare systems. Meanwhile, many rural residents in the isolated villages and blocks are forced to depend on the services of dubious healthcare providers such as quack doctors.

Sustainable public healthcare requires sufficient staffing and adequate clinical infrastructure. With the increase in district population and fast-growing patient loads, the primary healthcare system in Uttar Dinajpur is currently unable to provide satisfactory rural healthcare coverage. The available bed strength at many BPHCs is highly insufficient to meet the anticipated needs of the block population. No beds are available at the health centre at Kanki, which forces many indoor patients to seek private hospitalisation as far away as Siliguri. With no BPHC being located in the block, the population of Karandighi is similarly underserved by the existing 30-bedded rural hospital, and thus has to depend to a considerable extent on the indoor healthcare services extended by the District Hospital at Raiganj, ultimately lowering the efficiency of the referral healthcare system. Inadequate emolument scales also affect the appointment and retention of healthcare technicians, partially weakening pathology services at the BPHCs. Meanwhile, mushroom growth has occurred in private clinical and pathological establishments across the district, whose services often involve prophylactic and quality concerns.

Since public healthcare coverage in Uttar Dinajpur had hitherto been poor, the rural population will also need to be conditioned towards wider acceptance of modern healthcare. A comprehensive information, education & communication [IEC] strategy thus needs to be formulated for the district as a whole, involving civil society partnerships for health outreach. Although the provision for appointing a grassroot accredited social health activist [ASHA] for each village with 1000 population under NRHM makes another important

step toward this, the number of ASHA workers to be appointed and their training needs would be immense. Hence the programme for healthcare extension in Uttar Dinajpur will have to be carefully coordinated and planned, so that it does not flounder at this critical stage. Given the NRHM coverage norms, the number of SHCs in Uttar Dinajpur is presently inadequate and will have to expand substantially for referral healthcare and health acceptorship to improve. During the process of upgrading the SHC network, there would also have to be some rationalisation of the service loads through reassignments of villages to be covered by the existing and new SHCs. At this stage, considerable attention would need to be devoted to locate these healthcare facilities optimally, taking into account the distances that would need to be covered by the healthcare seekers as well as the existing communication links they would need to traverse.

Because of the dearth of SHCs and AWCs in the district, the delivery of immunisation and RCH services in Uttar Dinajpur is still very weak. Institutional deliveries are still relatively rare, leading to the high persistence of neo-natal and post-natal deaths among mothers and infants. Besides the District Hospital at Raiganj which has been upgraded in name but still functions within the infrastructure of a subdivisional hospital, the State General Hospital at Kaliaganj functions within the infrastructural framework of a rural Hospital. Considerable upgradation of the healthcare infrastructure in the district will have to be made, before improvement occurs in the rural health situation. Establishment of an ESI hospital in Uttar Dinajpur is also required to ameliorate health situations among the large number of brickfield workers in the district.

Although the Union Government has recently announced its intention of establishing a 960-bedded superspeciality hospital at Raiganj, on the lines of the All India Institute of Medical Sciences [AIIMS], the prevailing health situation in the district will only show distinct improvement if the entire referral healthcare infrastructure is also revamped, with adequate provision of health institutions and health staff at all tiers. Since an opportunity for accomplishing this has now arisen under NRHM, Uttar Dinajpur needs to make full use of this opportunity, in order to place healthcare attainments in the district on an even keel.

### **D: Amelioration of Livelihood Situations**

Even though Uttar Dinajpur is a major rice-producing district, the current level of agricultural technology is generally poor, combined with a substantially underdeveloped irrigation potential which restricts the productivity of small and marginal farmlands. Crop losses are a frequent feature during the season of rains, because of the location of large parts of the district along the active floodplains of the Mahananda and Nagar. The problem has become critically acute in the region between Raiganj and Itahar where protection works along the Kulik and Nagar are urgently needed. The dominance of rice in the cropping profile of Uttar Dinajpur has led in recent years to the addition of substantial rice-processing capacity, with over 15 registered mini ricemills, located mostly in Islampur SD. In addition, the unregistered rice-milling sector forms a major cluster within the district, with 4911 small-scale units that collectively employ over 12,600 workers. Large quantities of jute are also produced in the marshy and riverine tracts of Uttar Dinajpur, as a result of which several downstream industrial units that process the fibre into texturised jute yarn have already been set up in the main jute-producing region. While these could form the future core for an integrated complex involving the manufacture of high-value jute products, this potential seems to have been overlooked and no proposal for such an industrial complex is in the pipeline at present. A project of this order could be initiated and sustained if two high-volume jute mills were established to serve jute-growers at Islampur and Raiganj subdivisions and offer them adequate price-support.

As a major agricultural district, Uttar Dinajpur holds considerable potential for agro processing industries. More mini rice mills and rice bran oil extraction units can be set up across the district, with adequate institutional support. Under a closed production cycle, the large volume of rice husk produced by these rice mills would also provide a valuable source of energy to other industrial units. On the same principle, a modern petrochemical cracking unit has been established recently outside Kaliaganj, which processes

petrochemicals brought down by tanker from the Haldia production complex into light aromatics like benzene and toluene for distribution through North Bengal, Bihar and Nepal, using rice husk as its energy source. Other agro based units can also be established outside Islampur for processing tomatoes and pineapples which grow well in the Chopra-Islampur region, while a turmeric processing unit can be located at Goalpokhar.

Through most of Uttar Dinajpur, the expansion in rice production has been based on the enhancement of irrigation, primarily through the mechanism of energised shallow tubewells and river-lifts. However, with rural electrification rates in the district being poor, these energised irrigation systems depend heavily on the unsubsidised use of diesel fuel, greatly raising energy costs while also reducing the competitiveness of rice producers in Uttar Dinajpur. Although the ultimate solution will be offered by the Tista Barrage Project [TBP], which has the potential of irrigating a command of 1.94 lakh ha of agricultural land in Uttar Dinajpur through inexpensive surface-based irrigation technologies when its first substage is complete, the tardy progress made by TBP means that this event lies far in the distant future. Until then, multicrop agriculture in the district will not reach its full potential. A strong case, therefore, exists for accelerating the implementation of TBP in Uttar Dinajpur, especially since the project has now been reclassified as a project of national importance and is thus eligible to secure enhanced funding commitments from the Union Government.

The Dinajpur region has traditionally been known for cultivating a large variety of indigenous aromatic rice strains, of which the *Tulaipanji* variety is native to the Raiganj region. Another variety which is now nearly extinct is the Joshoa rice strain still grown in isolated pockets of Karandighi. Most other local rice varieties have now been eclipsed by modern rice hybrids, which have a shorter production cycle and guarantee higher grain yields. Nevertheless, a serious initiative needs to be mounted for preserving the indigenous rice strains that are still cultivated in pockets by marginal and small farmers in Uttar Dinajpur, many of which can be grown with minimal application of inputs in adverse weather conditions. Considerable research is being done in neighbouring Bangladesh in conserving the traditional varieties of Bengal rice. A similar effort can be initiated in Uttar Dinajpur to protect the agro biodiversity of indigenous rice varieties, which represent the accumulated bio-capital of the region's farmers.

Livestock-based livelihood activities, involving the rearing of cattle, goats and backyard poultry, have a long tradition in Uttar Dinajpur. Several parts of the district produce a milk surplus, which can be enhanced further through breed improvement and fodder cultivation. Goatery projects have been encouraged across the district, as a result of which the Islampur region now meets a considerable part of the meat demand from Siliguri. Establishment of a tannery unit near Islampur would allow the processing of hides sourced from across the surrounding region, eventually forming a base for leathercrafts in the district.

Except for areas within Chopra block where small-grower tea plantations have been established in large numbers, agricultural diversification in Uttar Dinajpur has so far been slow, because of the dominance of rice cultivation. The Panjipara area under Islampur SD and the Birghai area under Raiganj SD produce substantial amounts of horticultural crops. However, because of the lack of cold storages, alternative cropping patterns have yet to take firm root in the district, minimising the year-round opportunities for wage-work available to agricultural labourers and lowering effective wage-rates and earnings. During the season of agricultural slack, a pronounced tendency has thus developed for male agricultural workers to seek casual employment opportunities by migrating to other states and districts. This nevertheless has the social downside of destabilising rural families and forcing an increasing number of women to carry the dual responsibility of looking after their families while seeking out locally available work. Return migration by these male workers also compounds the transmission of communicable diseases, besides greatly increasing the transmission risks of HIV/AIDS in the district.

With substantial migration of young male workers outside the district now taking place, a critical gap could conceivably appear in the rural labour market within Uttar Dinajpur at certain times during the year. However the overall impact of labour outmigration has been lessened so far by informal inflows of agricultural workers from adjacent areas in Bangladesh and Bihar during the peak agricultural season. As evident in border regions like Hemtabad and Goalpokhar-1 blocks and the Bhatun region of Raiganj block, most of these workers usually enter the district on labour contract and leave after the peak season is over, and do not settle permanently in the receiving regions on a long-term basis. However, since they encourage the long-term labour outflow from Uttar Dinajpur by depressing agricultural wage-levels and increasing the wage-differentials with other regions, their movement ultimately has a major impact on rural labour profiles within the district. This phenomenon has become particularly severe along the border villages of Islampur SD, where unskilled boys as young as 13-14 years often quit school with the aim of joining the migrant labourforce that regularly finds work outside the district. As they leave Uttar Dinajpur in the company of the older family males who had migrated before them, the pattern is reinforced, leading to low skill-acquisition and the general absence of thrift and enterprise among the rural population.

Although Uttar Dinajpur is located along a principal highway axis and is well connected with Siliguri, adjoining Bihar and Kolkata, the dearth of medium and large industry in the district currently restricts the scope for alternative non-farm employment. High levels of rural poverty across the region also inhibit the growth of local markets, even though substantial scope exists for extending small-scale industry in the district because of the prevalence of low wage-costs. Paradoxically, the state-sector West Dinajpur Spinning Mills Ltd. established in 1975 as a major public sector unit to feed the traditionally strong handloom industry in the undivided district is now up for privatisation, because of its inability to competitively market its yarn even after its recent modernisation. Given the proximity of the spinning mill to the highly skilled artisanal weavers of the adjacent Gangarampur region in Dakshin Dinajpur, Uttar Dinajpur could still emerge as the future regional hub for an integrated textile complex located in North Bengal. However, revival of the traditional handloom weaving industry in the region would also depend to a considerable extent on new design inputs that can enhance the marketability of the local handloom products.

Several other artisanal trades are practised within the district, including the manufacture of fine pottery articles, folk musical instruments and *dhokra*, *sola*, bamboo and woodcrafts. Many of these trades have their origin in the antiquity of the Dinajpur region and are traditionally practised among the STs as well as the SC artisanal groups. Because of its proximity to forests, Chakulia was once a major centre for the turning of high-quality wooden wheels & axles for bullock-carts - a tradition that is now on the verge of dying out. Kunore is still a major centre for the production of *dhokra* craft, while Kaliaganj has a traditional base of pottery manufacture. However, in the absence of technical and institutional support, the market for artisanal products has dwindled considerably, while the rural population has now gained access to new industrial substitutes. The decline of artisanal trades threatens scores of craftsmen in Uttar Dinajpur with the loss of their traditional skills and livelihoods, reducing them ultimately to the ranks of unskilled agricultural labourers.

Although no organised effort has been made in the district so far to resuscitate traditional artisanal handicrafts, sufficient scope exists to expand their linkage with major urban markets, by showcasing their products and promoting them through major national and regional crafts councils. An initial experiment at reviving and sustaining *dhokra* craft is currently underway at Anantapur GP in Kaliaganj block, with advanced training being imparted to the artisans by craft experts from Santiniketan. However, for this initiative to realise its full commercial potential, an integrated effort at crafts revival needs to be launched across the entire district, under the direction of established crafts consultants, to identify potential producing centres and upgrade raw material supply-chains, product designs, equipment and manufacturing skills, invoking technical inputs

wherever necessary in order to increase production volumes. In pockets where artisan families live in large clusters, such as the potter colonies in Kaliaganj, technical inputs like electric kilns can increase the efficiency of the artisanal production process, while also permitting the diversification of products to include higher ceramic grades like glazed pottery and stoneware. Comprehensive interventions of this kind have already revived many traditional handicrafts in other parts of India, and with major tourism centres like the Dooars and Darjeeling situated close by, there is no reason why similar efforts would not succeed in Uttar Dinajpur.

### **E: *Improvement in Gender Security***

Increasing male migration from several rural regions within Uttar Dinajpur has generally had a beneficial impact on female work participation, leading to the growing economic engagement of women in the district. Nevertheless, since main work opportunities for women tend to be sparse, most women workers are primarily engaged in marginal work and are therefore unable to attain their full earning potential. New work opportunities for women in the district have also been created through the extension of the *beedi* binding activity and via the SHG movement. With high prevalence of rural poverty in Uttar Dinajpur, increased economic engagement of women merely eases the pressure on household incomes, rather than leading to a material change in women's economic status. In terms of social privilege, both rural and urban women in the district remain at a considerable distance from their male counterparts, evidence of which exists in the frequent incidence of crimes against women.

Because of the long borders of the district and constant movement between them, women in Uttar Dinajpur undergo separate personal security risks, with a significant number going missing every year. Cases of trafficking in women are often detected along the Uttar Dinajpur-Bihar border, involving women trafficked from other regions who are in transit through the district, as well as women locally trafficked from within Uttar Dinajpur. The routing of major National Highways through the district leads to the heavy movement of truckers, and a large number of roadside eateries that double up as redlight establishments after dark have sprung up overnight at the truckers' halts. Because of promiscuity, the truckers are also identified as a high-risk group in the transmission of STIs and HIV/AIDS. No rescue home has been established as yet for trafficked women in Uttar Dinajpur, making it difficult for rescuers to provide personal security to the trafficking victims. Since the proximity of borders offers a convenient getaway to the traffickers, many more cases go undetected. As a result, trafficking in women and children through Uttar Dinajpur has now reached the dimensions of a major criminal racket. Largescale movement of trucks through the district makes it easy for the racketeers to move their victims into other states. With the constant outflow and return of male migrants from the district, social vigilance is low, making it especially difficult to trace and apprehend the traffickers and their agents, who therefore operate with impunity in the border regions.

In view of such preconditioning factors, the trafficking of women and children for labour bondage and other immoral purposes poses a major crime risk in Uttar Dinajpur district. From an analysis of recent trafficking records, the common *modus operandi* is for returning migrants to bring back certain 'friends', who then contract false marriages with poor rural girls in connivance with some of their relatives, who are paid a handsome amount of money in return for such services. Hence, a system of preventive vigilance needs to be institutionalised in the border areas of Uttar Dinajpur, under which the local *panchayat* can maintain a marriage register and a migration register, thus allowing public verification of the antecedents of the outside parties that seek to contract a marriage with a local girl, and enabling the police authorities to be alerted in case suspicions arise. Activisation of women's Self-Help Groups in the villages offers another effective means of increasing social vigilance, since cases have already occurred where fraudulent marriages have been halted in time, because of the alertness of the SHGs. Women's SHGs can also offer peer support to the intended victims, in cases where the victim's family is a party to the crime.





