# DISTRICT HUMAN DEVELOPMENT REPORT PASCHIM MEDINIPUR

DEVELOPMENT & PLANNING DEPARTMENT GOVERNMENT OF WEST BENGAL

District Human Development Report: Paschim Medinipur

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#### **Foreword**

Any descriptive account of West Bengal is incomplete without the mention of Medinipur. A bastion of freedom struggle, bedrock of peoples' movements and a place of reverence to the students of political history, Medinipur is the birth-place of Iswarchandra Vidyasagar, Kshudiram Bose, Matangini Hazra, Birendranath Sashmal and many stalwarts who have made the nation proud through their contributions in the social and political spheres. It also has a rare combination of urban agglomeration and rural settings interspersed by forest tracts and hillocks. The eyes of the wanderlust mingle the views of the historical mansions of Mahishadal and Jhargram with the Indian Institute of Technology at Kharagpur, the barrage of Kansabati and banks of Rupnarayan.

The enormous size of the district repeatedly drew the attention of the administrators since the latter half of the nineteenth century for bifurcation. Finally, on the 1st of January, 2002, the twin districts of Paschim Medinipur and Purba Medinipur were carved out of the erstwhile "Midnapore" which was the largest Indian district in size and proportion till that day.

Paschim Medinipur provides an endless canvass of opportunities. Featuring in the lower range of all-round development, it was brought under the Rashtriya Sam Vikas Yojana of the Planning Commission in 2003-2004 during the Tenth Plan and later included under the Backward Regions Grant Fund in 2006-07, in order to usher in a series of multi-faceted programmes aimed at economic well being of a large section of the district population which was either living below the poverty line or on the edge of subsistence.

The surge of Left Wing Extremism (LWE) activities in some areas of the district bordering Orissa and Jharkhand has posed a great threat not only to the lives and livelihood of the people of this area but also to the spread of developmental activities. It (LWE) has challenged the basic authority of governance and has compelled the State Government to resort to a control mechanism that may not be populist but effective to check the growth of militancy that erodes the very platform of progress which the State Government is bent to build for betterment of the district and its people.





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The collation and collection of data to prepare this DHDR has indeed been a very, very uphill task and I have no words to appreciate the team of academicians and administrators who have strived to prepare this document which accumulates much required information about a district that demands a concerted and continuous effort from all of us to improve its hitherto underdeveloped status. I thank the members of the State Planning Board whose advice and guidance had been pivotal in the making of this document. I also thank the officers and staff of the Development and Planning Department for doing all that is needful to bring out this DHDR which is a follow up to the SHDR published in 2004.

It would be a real pleasure if this Report helps to upgrade the position of Paschim Medinipur in the Human Development scenario.

Kolkata

March, 2011

Nirupam Sen



#### **Preface**

Located in the southern part of West Bengal, Paschim Medinipur in its existing part, has been carved out of the erstwhile Midnapore in year 2002. Being the second largest district in the State, has been always in focus because of perpetual underdevelopment in the western part. In the last two years, Maoist violence has rapidly spread over eleven western blocks of the district and it has again brought the issues of Human Development in the forefront. The district has two distinct divisions- western part with arid red lateritic soil along with tribal population concentration and eastern part with alluvial soil deposits with people of different caste groups being present. All the twenty nine blocks of the district, do present a unique opportunity to understand the issues associated with the different aspects of human development, viz., demography, physiological conditions, literacy, economic livelihood etc.

In the different chapters of the report, we have made efforts to analyse each of these aspects and try to understand their relevance to human development. Availability of the authentic data at sub-district level is always a problem. However, we have generally made efforts to rely on Census and Rural Household Survey data. As the current census operation is yet to be over, we have used Census-2001 data. Rural House Hold survey data of the year 2005, has also been used as this provides interesting information on conditions of rural population specially as regards their housing conditions, economic status and asset position. With plethora of programmes running at the district level, we do generate lots of data regarding health, education, nutritional status, agriculture production etc from the lowest level. These data have also been used however, the veracity has been verified vis a vis actual field condition after discussing the same with different field officers.

The process of preparation of HDR in its present form has received contribution from different academic institutions such as Vidyasagar University and IIT Kharagpur. I thankfully acknowledge the contribution of Prof. Sacchidanand Sahaoo of Economics Department, Vidyasagar University for working tirelessly for the preparation of the report and giving his valuable inputs on different issues. I would also like to thank Prof. P. K. Bhowmick, Prof. Arif Merchant & Prof. R. N. Chatterjee of IIT Kharagpur and Prof. D. Mondal & Prof. Sankar Majumder of Vidyasagar University for their contributions to different chapters of the report. The contributions of ADM (Development) Sri R K Maiti, DPLO both past and present, Sri Malay Mukhopadhyay & Sri Pranab Ghosh, ECCP Sri Nirmal Ghorai, Sri Partho Ghosh, erstwhile SDO Sadar, Sri Rupam Banerjee, DNO, NREGA and Smt Aditi Dasgupta, erstwhile DPO, SSA have been praiseworthy. I would also like to thank the entire staff of Development and Planning section of Medinipur Collectorate, with special thanks to NRDMS cell, Dr. Arabinda Maity & others for assisting us in compiling the report in its present form.

I also take this opportunity for extending our gratitude to Development & Planning Department, Government of West Bengal, specially to Additional Chief Secretary, Smt. Jaya Dasgupta, IAS for guiding the entire process and giving us the valuable inputs on different occasions. Paschim Medinipur Zilla Parishad has provided valuable inputs and participated in the entire process. In this regard, I extend my sincere thanks to Smt. Antara Bhattacharya, Hon'ble Sabhadhipati and all the Karmadhyakshas of Paschim Medinipur Zilla Parishad.

I am sure HDR in present form will help us and provide a deeper insight into the different aspects of Human Development in the district and enable us to carry forward the development agenda in the focussed manner.

(Narayan Swaroop Nigam, IAS)

District Magistrate, Paschim Medinipur & Lead Co-ordinator



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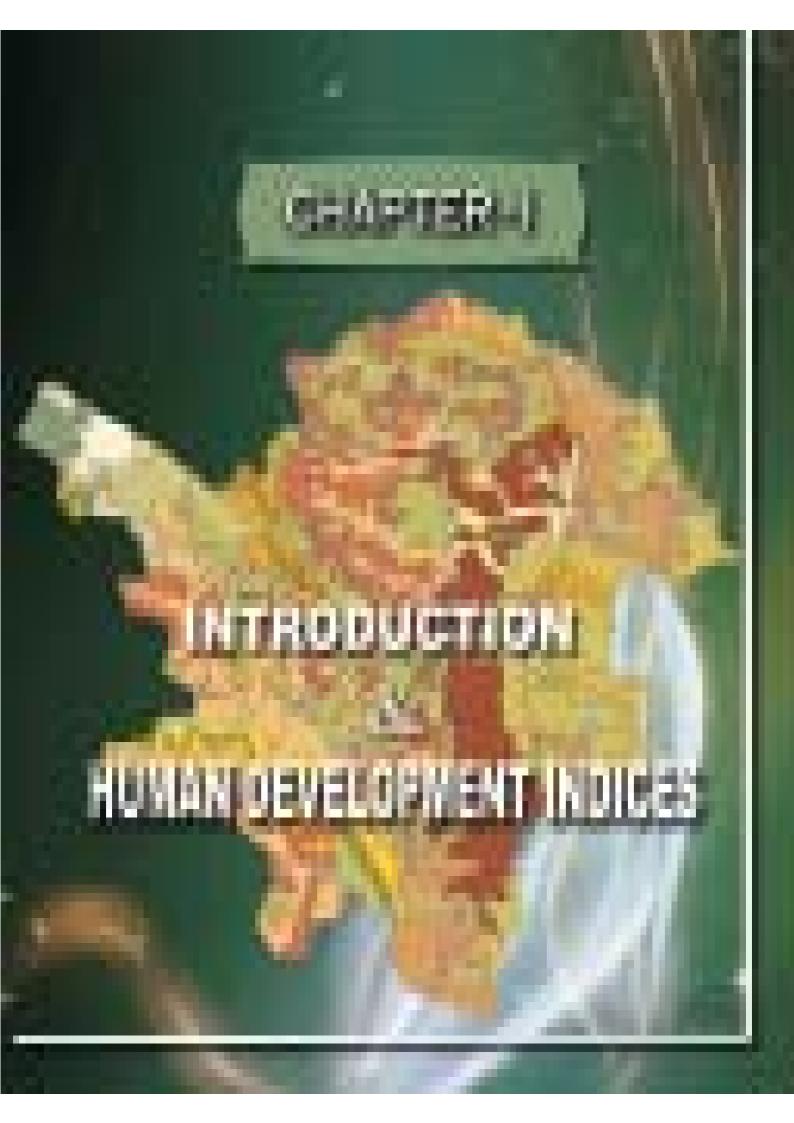
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## Chapter - I

## **Introduction and Human Development Indices for Paschim Medinipur**

"Sarbe BHABANTU Sukhino SARBE santu Niramaya Sarbe Bhadrani Paswantu Ma Kashyachit Dukshabhag Bhabet"

> " May all people be happy May all be healthy May all be decent May none be unhappy"

#### 1.1 Backdrop

Human development as a concept implies a process of change attributes to human being - both quantitatively and qualitatively. The concept of human development has long been echoed by sages of ancient India. The sages wished that every human being should be happy, healthy and educated. It is always emphasized as centre to development of society. In recent years, the Human Development Report of the UNDP has seen development as a process of increasing people's choices so that they should have a long and healthy life, access to knowledge and income, assets and employment, for a decent standard of living.

Human Development is not only related to the environmental resources, its utilization through overall economic activities but also to the quality and vision of governance. The macro variables including policy changes also affect the level and pattern of human development.

West Bengal Human Development Report, 2004 is a pioneering work on the part of the Government of West Bengal, which throws light on various issues concerning Human Development at the district level. The framework which this Report provides as a broad guidance to the preparation of Human Development report of a district, time availability and quality of data at sub-district level pose difficulty in preparation of District Human Development Report.

Against this brief backdrop, the objectives of this Report are to examine the level and pattern of human development across the district of Paschim Medinipur, to discuss diverse issues including the measurement of attributes and parameters to human development and to analyse the variations and finally to suggest measures for narrowing down the variation in human development.

The rest of this chapter is organized as follows. Section 1.2 presents some geographical features of Paschim Medinipur district, which highlights some characteristics essential for understanding its economic backwardness and also human development differential across the district. This is followed by a discussion on some human development indicators and achievements of the district vis-à-vis the whole of the state of West Bengal in section 1.3. Section 1.4 highlights progress of the district in respect of infrastructures which are related to the achievements and human development indicators of the district. Section 1.8 presents human development indices of blocks of the district. The last section, i.e., section 1.10 presents the chapterisation plan of the whole Report.

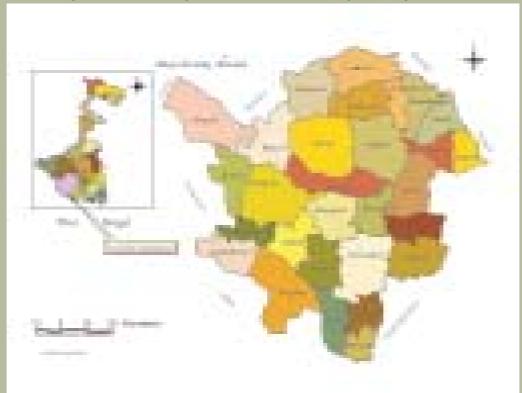
#### 1.2 About Paschim Medinipur

Paschim Medinipur, located in the southern part of West Bengal, has been carved from the erstwhile Medinipur district, the then largest district of India, and came into existence in the present form from 1st January 2002. It is situated between 220 57' 10" and 210 36' 35" North latitude and between 880 12' 40"

#### Introduction and Human Development Indices

and 860 33' 50" East longitude. Paschim Medinipur is bounded by Bankura district from the northern side and Purba Medinipur district from the south-eastern side The southern boundary of the district is merged with Balasore and Mayurbhanj district of Orissa and western boundary is merged with Singbhum and east district of Jharkhand. (see Map 1.1).

The present population of the district is 57 lakh with 18.05 % SC and 14.87 % ST population. Geographical area of the district is 9295.28 Sq. Km. The district is further divided into four Sub-dvisions, 29 blocks and 8 municipalities.



Map 1.1 West Bengal and Paschim Medinipur Perspective

Paschim Medinipur district represents regional diversity in terms of physiographic, agro-climatic characteristics, economic development, social composition etc. Geo-morphologically, the district can be sub-divided into three parts, viz. Chhotonagpur Flanks with hills, mounds and rolling lands in the westernmost part, Rahr Plain with lateritic uplands in the middle part and Alluvial plain of the east with recent deposits. It is hilly in the north-west but represents low basins in the south-east and east. It has drought-affected dry areas in the west but highly wet flood-affected in the east. Dense dry deciduous forest in the west is replaced by semi-aquatic vegetations of marsh lands in the east. It has barren lateritic, non-arable lands in the west and north-west, which gradually changes with highly productive alluvial soil areas in the central and eastern part of the district. It is the abode of tribes and primitive tribes in the western blocks while most of the other areas are inhabited by all castes of the mass society. It represents cultural diversity across blocks.

The area of the district is 9295.28 Sq. Km. The general appearance of the district is that of a large and well-cultivated plain, but towards the north and west gently undulations appear, with ridges covered by a thick growth of sal trees and other scrub jungle, while the intervening depression produces rich crops of

rice. Partly from the poor fertility of the soil, and also from the ruthless way forest have been cut down in past, large forest trees are scares, but still in the neighborhood of some of the villages, a few fine tamarind, sal and mahua trees still do remain. The western boundary is more broken and picturesque, for the lower ranges of the Chhotanagpur Hills line the horizon, the jungle assumes the character of forest, and large trees begin to predominate. The soil, however, is lateritic, a considerable area is unproductive, almost uninhabited, especially in the extreme north-west where there are several hills over 1000 feet in height. The remainder of the country is an almost level plain broken only by the sand hills.

Broadly speaking, there are two natural divisions of the district. The metalled road from Raniganj and Bankura, which traverses the district from north to south, passing through the station of Medinipur and onwards to Balasore and Cuttack, may be generally taken as a dividing line between them. To the east of this road, the soil is purely alluvial, the country is flat, and the land is fertile and fully cultivable. To the west, the country is undulating, the high lands of Central India here terminating in long rolling waves of laterite rock, and most of the surface consists of alternative ridges and depressions. The characteristic formation of the district is laterite, which occupies nearly the whole country in the north and west, but in the south and the east it gradually gives way to the ordinary alluvium of the Gangetic delta.

The alluvial portion may be subdivided into two divisions; first, there is a strip of purely deltaic country bordering Hooghly, intersected by numerous river and water-courses, which are subject to tidal influence. These water-streams are usually connected with one another, thereby rendering it to travel by water. This low-lying tract extends for about 20 miles inland from the Rupnarayan and Hooghly. The alluvial deposits seem to cover the final swells of the laterite formation. None of this formation as yet appeared on the surface, but the watersheds between the streams are distinct, and the general elevation of the country is higher. The second division consists of the alluvial tract constituting the remainder of the eastern half of the district. This is monotonous rice plain intersected by numerous waterways and tidal creeks, which are lined with embankments to protect the fields from flood water. Much of the area is waterlogged, and this is particularly the case with the tract bounded by the Kasai River on the south and the Silai River on the north. This latter tract is a low laying depression formed of the combined details of the Kasai and Silai rivers and intersected by numerous Khals. The river beds have been raised by the constant deposit of silt above the level of the surrounding country; the latter has to be protected from inundation by a complicated system of embankments. Many of these unfortunately obstruct the natural drainage of the country with the result that the soil being deprived of its increment of deposit is permanently depressed, while the waterways have become choked with silt and the land below them is waterlogged.

The river system of Paschim Medinipur district consists of the Rupnarayan, the Kansai and the Subarnarekha which enters this district from Singbhum and passes into the Balasore district, where it falls into the Bay of Bengal. The principal tributary of the Rupnarayan is the Silai or Silabati. This river enters Midnapore from the Manbhum district on the north, and follows a tortuous course. It runs fast in an easterly direction through the north of the Medinipur (Sadar) Sub-division, and then turns to the south east and south through the Ghatal Sub-division. Near Narajole it takes a sharp turn to the north, and eventually it falls into the Rupnarayan at Bhandar, 4 miles below Ghatal. The Silai is navigable throughout the year for a short distance in its lower reaches, which are within tidal influence. It is fed by two small streams from Bankura district on the north, the Purandar and Gopa, and by the Chandur and Kubai in Medinipur its rise in the north-west of the district and flows east till it empties itself into the Silai near Narajole. The Kasai enters the district in the north-west from Bankura. It flows an exceedingly tortuous course, running first

#### Introduction and Human Development Indices

south and south-west and then eastwards past the town of Medinipur, which is situated on its north bank. Below Medinipur the channel contracts rapidly, till at Kapastikti, 13 miles lower down, it bifurcates, one small branch going north and eventually into the Rupnarayan, while the main channel runs south-east. The Subarnarekha is the only other river of Paschim Midnapore requiring notice. It enters the district on the north-west from Dhalbhum and pass through the south-west of Medinipur (Sadar) sub-division intersecting Gopiballavpur thana. To the South of Dantan it enters Balasore district and finally falls into the Bay of Bengal. The Subarnarekha has a rapid stream with a sandy bed, and its banks are generally high and well defined. In seasons of high flood the river overflows it's left bank about 4 miles above the point where it leaves Paschim Medinipur district to enter Balasore district. The Dulongs is also an important river of the district.



Map 1.2 Rivers and Drainage across Paschim Medinipur district.

The experiences of drought and flood are common in the district. The flood prone area is about 142647 ha. (Ghatal & part of Kharagpur sub-divisions). Draught prone area is about 335248 ha (Jhargram and Sadar sub-divisions). Ghatal and the Southern parts of Kharagpur sub-divisions are affected by water logging during the rainy season. As a result, there is frequent loss of crop. Sabang, Pingla and Narayangarh block in Kharagpur sub-division often suffer from such losses. Many areas in Jhargram sub-division have an undulating topography and laterite soil, which is unsuitable for large-scale cultivation. Drought affects the population here frequently and causes damage to the limited agriculture in the area, affecting food security of the people living here. Though the district does not have a coastline, it is affected frequently by the cyclones during the months of October and November and untimely rains during April and May.

The climate is tropical and the land surface of the district is characterized by hard rock uplands, lateritic covered area, and flat alluvial and deltaic plains. Extremely rugged topography is seen in the western part of the district and rolling topography is experienced consisting of lateritic covered area. These rolling plains gradually merge into flat alluvial and deltaic plains to the east and south east of the district. The soil is fairly fertile.

Normal rainfall in the district is around 1400 - 1500 mm. However, for the last few years, it has been highly erratic in nature.

Average temperature of the district varies widely across seasons, varying between maximum of 39 degree Celsius and minimum 10 degree Celsius in 2006 (Table 1.1). The climate is characterized by hot summer, cold winter, abundant rainfall and humidity. Rainfall fluctuates widely over years and concentrates over a few months of a year under monsoon. Normal rainfall estimated over 21 years during 1994 to 2005 is 1549 mm.

Table 1.1 Geographical Location and Climate of Paschim Medinipur District, 2006

Latitude Longitude		itude	•	erature Celsius)	Rainfall Normal	Rainfall Actual	Rainfall Actual	
				2006		(m.m.)	(m.m.)	(m.m.)
North	South	East	West	Maxi- mum			2002	2006
22057/10//	21º36′35″	88012/40//	86033/50//	39	10	1537	1663	1436

Source: Government of West Bengal, District Statistical Handbook, Paschim Medinipur 2006

#### 1.3 Some Indicators of Paschim Medinipur vis-à-vis the whole of West Bengal

- ➤ It ranks 1st among 19 districts of the state of West Bengal in sex ratio (961) followed by Bankura and Purulia (953), Murshidabad (952), Dakshin Dinajpur (950), the all-West Bengal average being 934 in 2001.
- It ranks 2nd in terms of geographical area (9295.28 sq. km.), next to South 24-Parganas (9960 sq. km.) but is followed by Burdwan (7024 sq. km.) and Bankura (6882 sq. km.)
- It ranks 3rd in terms of rural population (45.76 lakh) following South 24-Parganas (58.20 lakh) and Murshidabad (51.33 lakh) but is followed by Burdwan (43.48 lakh), North 24-Parganas (40.83 lakh) and Purba Medinipur (40.51 lakh) as in 2001.
- It ranks 4th in terms of percentage of ST population (14.87) following Jalpaiguri (18.87), Purulia (18.27) and Dakshin Dinajpur (16.12).

Paschim Medinipur is rich in a variety of environmental resources like land, forest and human resources. As per Census of India, total geographical area of Paschim Medinipur district in 2001 (9.75 thousand sq. km.) accounted for 11.01 per cent of the total geographical area of the state (88.75 thousand sq.km.). Total forest area of the district was 1.70 thousand sq. km. which accounted for 14.31 per cent of the total forest area of the state (11.88 thousand sq. km.).

Table 1.2 Forest Areas and its Percentage to Total Reporting Area in Paschim Medinipur District vis-à-vis the Whole of West Bengal, 2003-04 & 2004-05

		2003-04		2004-05			
District/ State	Reporting area ('000hectares)	Forest area ('000hectares)	Percentage of forest to Reporting area	Reporting area ('000hectares)	Forest area ('000hectares)	Percentage of forest to Reporting area	
Paschim Medinipur	928.6	169.7	18.27	928.6	171.9	18.51	
West Bengal	8687.5	1171.3	13.48	8687.5	1174.8	13.52	
Per Cent	10.69	14.49	136	10.69	14.63	137	

Source: Government of West Bengal, District Statistical Handbook, Paschim Medinipur 2006

Similarly, percentage shares of the district to all West Bengal area under orchard, permanent pasture and grazing land, barren and unculturable waste, culturable waste, fallow land other than current fallow were above its percentage share to its geographical area. Percentage shares of the district in non-agricultural area, urban area, and irrigated area were, however, below that in geographical area of the State (Table 1.3), which indicates that there is deficiency of the district in these indicators and demands planned intervention of the government and panchayats in these areas for improvement of economic conditions of people of this district.

Table 1.3 Some Geographical Features of Paschim Medinipur District vis-à-vis the Whole of West Bengal

(in thousand hectares)

District/ State	Geographical Area ('000 sq. km.)	Area Under Orchard and other (2004-05)	Permanent pasture and Grazing Land (2004-05)	Barren and Unculturable Waste (2004-05)	Cultural Waste land (2004-05)	Fallow land other than Current Fallow(2004-05)	Current Fallow Land (2004-05)	Area Under non-agricultural use (2004-05)	Rural Area (Sq Km)2001	Urban Area (Sq Km)2001	Irrigated Area ('000 hectares) 2002-03
Paschim Medinipur	9.79	9.93	0.62	4.03	5.06	4.59	21.84	158.46	9076	219	345.31
West Bengal	88.75	58.54	4.54	25.75	35.56	25.34	314	1874.24	85427	3324	4974
Per cent	11.01	16.96	13.66	15.65	14.23	18.11	6.96	8.45	10.62	6.58	6.98

Source: Government of West Bengal, Statistical Abstract 2005

Inhabited villages (over 7500) of the district show highly differential features and indicators of human development. While there are pockets/agglomeration of highly prosperous and developed villages in the eastern part of the district, there are also villages of distress in the western part. 637 villages have been identified by the Government of West Bengal as backward villages that belong mostly to the western part. There is high concentration of backward villages in the drought prone blocks.

Net area under cultivation is 585222 ha. (63 per cent of the reporting area of the district), Where as 18932 ha. (2 per cent), 20132 ha. (2.16 per cent) and 141290 ha. (15.20 per cent) of land cone under category of culturable waste, barren and uncultivable and area under non-agricultural use respectively

As per Census of India, total population of the 29 blocks of Paschim Medinipur district was 23.80 lakh in 1961, which increased in 2001 to 51.93 lakh accounting for 6.48 per cent of the total population of the State. The rate of growth of population of the district during 1961 to 1971 was 27.52 per cent, which has come down to 15.76 per cent during 1971 to 2001. The decadal growth rate of population of the district during 1971 to 2001 was below that of the State as a whole (Table 1.4).

Table 1.4 Population and Its Growth in Paschim Medinipur District vis-à-vis the Whole of West Bengal, 1961 to 2001

District/ State		Рорг	ulation (i	n lakh)	Growth rate of population (Per cent)				
	1961	1971	1981	1991	2001	1961-71	1971-81	1981-91	1991-01
Paschim Medinipur	23.80	30.35	36.97	48.46	51.93	27.52	21.81	21.34	15.76
West Bengal	349.26	443.12	545.81	680.78	801.76	26.87	23.17	24.73	17.77
Per cent	6.81	6.85	6.77	6.59	6.48	102.42	94.13	86.29	88.69

Source: Census of India, West Bengal, Relevant Issues

Some other human development indicators of Paschim Medinipur vis-à-vis the whole of West Bengal are presented in Table 1.21. Percentage share of urban population in the district was 11.90 in 2001, which was much lower than that in the whole State (27.96). This indicates that level of urbanization of the district has been comparatively low.

In 2001, Hindus accounted for 85.58 per cent of total population of this district, which was higher than that of the whole the State (72.47 per cent). Conversely, percentage share of Muslims in this district was lower (11.33 per cent) than the State average (25.25 per cent).

The percentage share of ST population to total population of this district (14.87) in 2001was far above that of the State as a whole (5.50 per cent) while that of population in the age group 0-6 as well as sex ratio of this district was almost equal to the State average but higher for general caste and scheduled caste than those of the State as a whole.

Literacy rate of the district has been increasing at rapid rate over the census years. One distinguishing feature of the district is that in 1981 literacy rate of the district (39.80 per cent), which was below that of the State (46.32 per cent) increased significantly to 70.41 per cent in 2001, which was above that of the State (68.64 per cent). Both rural and urban literacy rates of the district were higher than those of rural West Bengal. In case of SC and ST, the literacy percentage in the district was also higher than those in the whole of the State. Gender gap in literacy rate (i.e., difference between female and male literacy rates) is, however, substantial and higher in Paschim Medinipur district in both rural and urban areas than that in West Bengal as a whole. Literacy rate is substantially low in the western part. The gender gap in literacy tends to increase in some blocks of the district. Literacy rate among general caste people as well as work participation rate across all castes of this district was higher than that of the State as a whole (Table 1.6 to 1.9).

Table 1.5 Some Indicators of Paschim Medinipur vis-à-vis the West Bengal (2001)

INDICATORS			Paschim Medinipur	West Bengal
% Share of Urban Population			11.90	27.96
% Share Rural Population			88.10	72.03
% Share of Major Religious				
Communities	Hindus		85.58	72.47
	Muslin	ns	11.33	25.25
% Share of SC			18.05	23.02
%Share of ST			14.87	5.50
% Share of Children(0-6)			14.36	14.24
	All		961	934
Sex Ratio	SC		973	949
Sex Natio	ST		977	982
	Childre	en of (0-6)	951	960
Population Density (Per Sq.Km)			531	903
		Total	70.41	68.64
		Male	81.30	77.02
Literacy Rate (%)	All	Female	59.10	59.61
		Rural	68.70	63.42
		Urban	82.40	81.25
		Total	63.57	59.04
	SC	Male	76.88	70.54
		Female	49.84	46.90
		Total	47.05	43.40
	ST	Male	62.92	57.38
		Female	30.83	29.15
Gender Gap In Literacy			22.20	17.41

Source: Census of India, West Bengal, Relevant Issues

Table 1.6 Percentage Share in Population in the Age Group 0-6 by Caste of Paschim Medinipur District vis-à-vis the Whole of West Bengal, 2001

District/State	Percentage share of population in the age group 0-6				Sex ratio			
	Total	Total General SC ST				General	SC	ST
Paschim Medinipur	14.50	14.40	18.60	16.60	961	954	973	977
West Bengal	14.20	13.80	15.10	16.70	934	925	949	982

Source: Census of India, West Bengal, Relevant Issues

Table 1.7 Literacy Rate by Sex in Paschim Medinipur District vis-à-vis the Whole of West Bengal, 1981 to 2001

District/State	1981				1991		2001		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Paschim Medinipur	39.80	51.84	27.20	65.50	77.50	52.50	70.40	81.30	59.10
West Bengal	46.32	57.04	34.43	58.00	68.00	47.00	69.00	77.00	60.00

Source: Census of India, West Bengal, Relevant Issues

Table 1.8 Literacy Rate by Sex and Region in Paschim Medinipur District vis-à-vis West Bengal, 1991

District /State		Rural			Urban	
	Male	Female	Person	Male	Female	Person
Paschim Medinipur	76.40	49.90	63.50	84.70	69.80	77.60
West Bengal	76.00	59.00	68.00	94.00	82.00	88.00
Difference?	0.40	-9.10	-4.50	-9.30	-12.20	-10.40

Source: Census of India, West Bengal, Relevant Issues

Note: ? between value of Paschim Medinipur and that of West Bengal as a whole.

Table 1.9 Literacy Rate and Work Participation Rate by Caste in Paschim Medinipur District vis-à-vis West Bengal, 2001

District /State	L	iteracy rate	e (Per cent)	)	Work participation rate (Per cent)			
	Total	General	SC	ST	Total	General	SC	ST
Paschim Medinipur	70.50	84.80	43.30	38.90	41.10	39.20	39.80	51.20
West Bengal	68.60	73.60	59.00	43.40	36.80	35.20	38.80	48.80
Difference?	1.90	11.20	-15.70	4.50	4.30	4.00	1.00	2.40

Source: Census of India, West Bengal, Relevant Issues

Table 1.10 Percentage Share of Workers across Livelihoods in Paschim Medinipur District vis-à-vis West Bengal, 2001

District/State	Total Workers	Cultivators	Agricul- tural labourers	Total Agricul- tural Workers	Household Industry Workers	Other Workers	Number of Non- agricultural Workers
Paschim Medinipur	100	29.99	35.12	65.11	7.69	27.20	34.89
West Bengal	100	19.18	24.97	44.15	7.37	48.48	55.85

Source: Census of India, West Bengal, Relevant Issues

Distribution of main workers by caste shows that percentages of main workers to total workers across all castes were lower in the district while those of marginal workers were higher than those in the state as a whole (Tables 1.11).

Table 1.11 Percentage of Main Workers and Marginal workers to Total Workers by Caste in Paschim Medinipur District vis-à-vis the Whole of West Bengal, 2001

District /State	Percentage of main workers to total workers			Percentage of marginal workers to total workers				
	Total	General	SC	ST	Total General SC			ST
Paschim Medinipur	67.06	70.53	64.84	58.88	32.99	29.73	33.91	41.8
West Bengal	78.1	80.9	74.0	65.7	21.9	19.1	26.0	34.3
Difference?	-11.04	-10.37	-9.16	-6.82	11.09	10.63	7.91	7.5

Source: Census of India, West Bengal, Relevant Issues

The castewise break up shows that the ownership of land is less among SC/ST population.

Table 1.12 Percentage of Main Cultivators and Agricultural Labourers to Total Main Workers by Caste in Paschim Medinipur District vis-à-vis the Whole of West Bengal, 2001

District /State	P	Percentage of cultivators to total workers			Percent	age of agri		oourers
	Total	al General SC ST			Total	General	SC	ST
Paschim Medinipur	32.5	31.4	21.9	19.2	37.7	24.1	51.4	64.5
West Bengal	19.2	19.3	18.6	19.5	25.0	17.3	38.0	53.2
Difference?	13.3	12.1	3.3	-0.3	12.7	6.8	13.4	11.3

Source: Census of India, West Bengal, Relevant Issues

Table 1.13 Percentage of Main Household Industry Workers and Other Main Workers to Total Main Workers by Caste in Paschim Medinipur District vis-à-vis West Bengal, 2001

District /State	Percentage of household industry workers to total workers				Per	centage of to total		cers
	Total	General	SC	ST	ST Total General SC			ST
Paschim Medinipur	10.3	12.1	8.1	6.9	22.7	27.2	18.0	12.2
West Bengal	7.4	8.4	5.8	3.0	48.5	55.0	37.5	24.2
Difference?	2.9	3.7	2.3	3.9	-25.8	-27.8	-19.5	-12

Source: Census of India, West Bengal, Relevant Issues

Occupational structure is considerably diversified in the relatively developed blocks of Kharagpur and Ghatal sub-divisions, while in the arid regions of Jhargram and Sadar sub-divisions, the occupational structure is less diversified and percentage of non-agricultural workers is relatively low. There is significant correlation between literacy rate and proportion of non-agricultural workers and rural poverty across 29 blocks of the district.

There is high agricultural productivity differential across 29 blocks of the district. The differential being high across drought prone blocks of the western part of the district and substantially irrigated blocks of its eastern part. Low productivity of agriculture has considerable relevance for high level of poverty among households in the drought prone regions specially among the SCs and STs.

#### 1.4 Infrastructure

The district is relatively backward in the development of infrastructures. Road length per square km. of geographical area, particularly of BT type, is considerably low for the district as a whole, particularly in the relatively backward blocks. As per RGGVY programme, rural electrification works are going on at a full pace and it is expected that all mouzas in the district will be electrified by 2011.

Table 1.14 Percentage of Mouza Electrified in Paschim Medinipur District vis-à-vis the Whole of West Bengal, 2004 and 2010

District / State	2004			2010		
	Total	Electrified	Percentage	Total	Electrified	Percentage
Paschim Medinipur	7478	4752	63.55	7478	5742	76.79
West Bengal	37945	31705	83.56	37945	32190	84.83

Source: Government of West Bengal, Statistical Abstract & WBSEDCL

Percentage share of the district in respect of length of total roads maintained by Panchayat Samities and Gram Panchayats in the whole of West Bengal in 2002-03 was 16.65, that by Zilla Parishad 3.04 while that by PWD was 7.51 and by Municipalities and Corporations 5.67.

Per capita advance of commercial banks in the district (Rs. 2184 in 2006) was far lower than that of West Bengal (Rs. 8371) accounting for only 26.09 percent of the state figures (Table 1.15).

Table 1.15 Population per Bank Office, Per capita Deposits and Per capita Advances in Paschim Medinipur District vis-à-vis West Bengal, 2006

District /State	Commercial Bank						
	Number of offices	Population per Bank Office (in thousand)	Per Capita Advances (in Rs)				
Paschim Medinipur	297	21	5438	2184			
West Bengal	4581	19	14525	8371			
Per cent	6.48	111	37.44	26.09			

Source: Government of West Bengal, Department of Panchayats and Rural Development, Annual Administrative Report.

Percentage share of the district in total number of medical institutions of the State on 31.3.2006 was 8.19 but that in number of beds was substantially less (5.22), which was even less than the population share, (Table 1.16). Percentage share of the district in total number of primary and upper primary schools of the Whole of the State have been, is significant (Table 1.17).

Table 1.16 Health Services in Paschim Medinipur District vis-à-vis West Bengal, 2003-04

District /State	Medical I	nstitution	Family Welfare Centre		
	Number	Beds	Rural (Number)	Urban**(Number)	
Paschim Medinipur	1117 4815		29 6		
West Bengal	13640* 92315#		335	135	
Per cent	8.19	8.19 5.22		4.44	

Notes: \* Includes Post Partum Centre,

# includes private institutions

Source: CMOH, Department of Health, Govt. of West Bengal

Table 1.17 Number of Primary and Upper Primary Schools in Paschim Medinipur District vis-à-vis West Bengal, 2008-09

District/State	Primary School	Upper Primary School	Ratio of Primary and Upper Primary Schools (Per cent)
Paschim Medinipur	4673	750	6.23
West Bengal	49893	9528	5.24
Per cent	9.37	7.87	_

Source: DISE 2008-09

#### 1.5 Decentralized Planning and People's Participation

Paschim Medinipur district like all other districts of the State practices decentralized planning formally starting at the lowest level with planning at the Gram Sansad and ending with the compiled plan prepared by the District Planning Committee for the whole district. It is worthwhile to mention here that the undivided Medinipur district was the first district in West Bengal to experiment with 'village-based district planning' since the early 1980s.

The SRD cell of the Department of Panchayats and Rural Development, Government of West Bengal, functions in several arid and semi-arid blocks of the district for preparation of plans of villages based on people's participation.

- # It has been possible to install Gram Sansad Plan-based and Upasamiti-based Integrated Gram Panchayat planning process in 43 selected Gram Panchayats and about 428 Gram Sansads. These Gram Panchayats have been able to demonstrate positive evidence of convergence of initiatives of Gram Panchayats and of the line departments for improved delivery of essential services.
- # 428 Gram Unnayan Samitis under these Gram Panchayats have also started implementation of community-based and community-owned plans, as part of the Gram Panchayat plans, with focus on low-tech and low-cost activities, ensuring and dovetailing community contributions (around 20% of their total budgets) and Untied Poverty Fund available under the SRD Programme.

<sup>\*\*</sup> Includes only those centres currently under Government Grant, # Includes private institutions.

In order to invoke participation of the community and ensure transparency, accountability and inclusiveness, the Gram Unnayan Samitis shared the summary of their annual plan budgets with each and every household in the respective areas. Most of the Untied Poverty Funds under the SRD programme are utilised by Gram Unnayan Samitis through disadvantaged Self Help Groups and indigent households, identified at Gram Sansad level, for social development and livelihoods expansion.

# The SRD programme has been able to create hundreds of evidences of community initiative, participatory democracy, transparency and meeting so-far-unperceived needs of the communities in areas of public health, education and expansion of livelihoods. The examples of success are significantly stimulating replication in neighbouring areas with community initiative.

#### Expanding Scope of Livelihoods through Management of Degraded Land

Through the participatory planning process, 73 schools in 10 Gram Panchayats of Jamboni block have been motivated to prepare 75 mango orchards under NREGA in the year 2008-09. Around 3087 mango trees (mostly of Amrapali variety) have grown up to 5-6 feet high in a year in the nearly wasteland with the help of school teachers, students, and local SHG members. The Gram Panchayat paid substantially for labour for earthwork and primary materials including saplings. This initiative not only created scope of additional livelihood opportunity for the poor and marginalized but also showed how the unutilised barren land in Paschim Medinipur could be brought back to use for productive purpose and also for soil conservation.

#### Nursery by Self Help Groups for Social Forestry

As part of Gram Sansad Plans and Support to NREGA, more than 40 nurseries were raised by Gram Unnayan Samitis in the year 2009-10 through women's Self Help Groups who have raised nearly 6 lakhs saplings. The SHG members collected some seeds from a nearby jungle. As part of other external support, the SHG got technical know-how from a trainer-facilitator deployed under the SRD programme. The SHG worked hard for bed preparation, fencing, seed sowing, caring etc.

Local planning is, however, plagued with unique problems related to setting proper priorities as also selection of beneficiaries, and the lack of trained manpower or mechanism to store and make use of local data and indeed a proper environment for taking up the complex task of planning at the local level.

Generally, PRIs receive schematic fund. Schematic funding alone restricts the scope of planning. Seriousness to use the mechanism of fiscal devolution to enhance the efficiency of panchayats is not yet in sight. The process has not been carried to its logical extent of 'devolution' type of transfer of functions, resources and authority from the state government to the PRIs.

Besides, own source revenue mobilization also determines fiscal autonomy of PRIs. Revenue mobilization of panchayats is increasing significantly but remains low. Average annual growth rate of own source revenue mobilization of gram panchayats during 2002-03 to 2007-08 was higher in the district (44.26 per cent) than that in the State as a whole (32.31 per cent) (Table 1.18).

Table 1.18 Per capita Own Source Revenue of Gram Panchayats in Paschim Medinipur District vis-à-vis West Bengal, 2002-03 to 2007-08

Item	Number of Gram Panchayats	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Average Annual growth rate(%)
Paschim Medinipur	219	4.84	6.38	11.43	14.35	24.64	23.72	44.26
West Bengal	3173	7.13	8.40	11.11	12.61	17.36	18.65	32.31

Source: Government of West Bengal, Department of Panchayats and Rural Development, Annual Administrative Report.

Percentage of total cumulative revenue collection to demand and pattern of utilisation of own source revenue in gram panchayats of Paschim Medinipur District vis-à-vis the Whole of West Bengal for 2005-06 is presented in Table 1.19. Percentage of revenue collection to demand in the district in this year was 33.27 which was higher than that (28.10 per cent) in West Bengal as a whole.

Table 1.19 Percentage of Total Cumulative Revenue Collection to Demand and Pattern of utilisation of Own Source Revenue in Gram Panchayats of Paschim Medinipur District vis-à-vis West Bengal, 2005-06

District/State		2005-06	2004-05 Percentage of Utilisation of Own Source Revenue			
	Total Cumulative Revenue Demand (Rs lakh)	Total Cumulative Revenue Collection (Rs lakh)	Percentage Collection to Demand	Commi- ssion	Contin- gency	Develop- ment
Paschim Medinipur	679.55	226.10	33.27	8.48	43.48	56.52
West Bengal	8068.89	2267.51	28.10	7.79	58.99	41.01

Source: Government of West Bengal, Department of Panchayats and Rural Development.

#### 1.7 Rural Poverty

In 2005, a Rural Household Survey(RHS) was conducted by the Department of Panchayats and Rural Development, Government of West Bengal to estimate the number of BPL families. The survey reveals that out of 1.16 million rural families in the district, 0.5 million families are Below the Poverty Line. Generally, these families belong to marginal farmers and agricultural labourers.

Table 1.20 BPL Families as per RHS vis-à-vis the West Bengal (2005)

District/ State	No. of Families	No. of BPL Families	BPL %
Paschim Medinipur	1163394	509494	43.79
West Bengal	13393530	4569834	34.12

Source: Zilla Parishad, Paschim Medinipur

#### 1.8 Human Development Indices

The indicators presented above shows human development scenario of Paschim Medinipur district vis-à-vis the whole of West Bengal. However, appropriate indicators need to be combined to form composite index so that variation across the district can be explained. This is done by forming education index, health index and economic livelihood index. The indices have been combined together to analyse the Human Development Index(HDI) of the different blocks.

- Education index has been prepared by giving one third weightage to children's enrollment ratio and two-third weightage to adult literacy rate and by adopting normative approach where both these indicators have minimum value of 0 and maximum value of 1.
- Health index has been prepared by giving equal weightage to child health indicator and adult health indicator.
- Economic livelihood index is prepared based on equal weightage to foodgrains productivity index, percentage of non-marginal workers index and APL index by adopting normative approach.
- Human development index has been prepared by giving equal weightage to education index, health index and economic livelihood index.
- Daspur II ranks first in terms of human development index (0.772) followed by Daspur I (0.728) and Ghatal (0. 649). Nayagram has the lowest value of Human Development Index (0. 423) followed by Jamboni (0.454) and Binpur II (0.479).

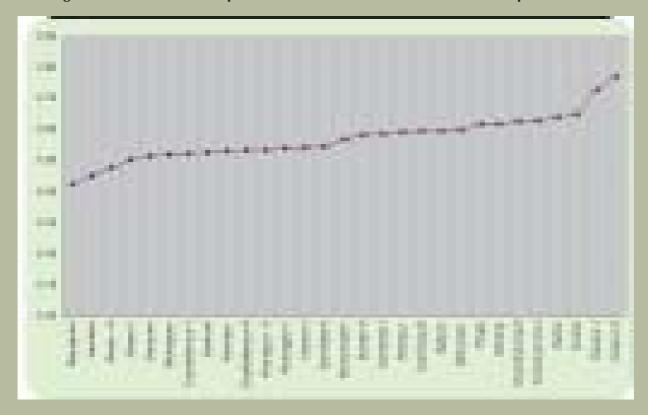
**Table 1.21 Human Development Index for Blocks of Paschim Medinipur District** 

Block	Education index	Rank	Health index	Rank	ELI	Rank	HDI	Rank
Chandrakona-I	0.74	8	0.646	7	0.501	10	0.629	5
Chandrakona-II	0.683	21	0.676	4	0.525	6	0.628	6
Daspur-I	0.77	4	0.738	2	0.677	2	0.728	2
Daspur-II	0.823	3	0.803	1	0.690	1	0.772	1
Ghatal	0.763	5	0.669	5	0.515	3	0.649	3
Binpur -II	0.665	26	0.564	16	0.208	29	0.479	27
Binpur-I	0.678	22	0.471	27	0.367	19	0.505	26
Gopiballavpur-l	0.623	28	0.553	21	0.395	15	0.524	23
Gopiballavpur-II	0.655	27	0.553	19	0.397	16	0.535	20
Jamboni	0.669	25	0.465	28	0.227	27	0.454	28
Jhargram	0.692	19	0.547	23	0.309	26	0.516	25
Nayagram	0.622	29	0.387	29	0.260	28	0.423	29
Sankrial	0.705	15	0.545	24	0.332	24	0.527	22
Dantan-I	0.687	20	0.553	20	0.391	17	0.544	17
Dantan-II	0.756	7	0.574	14	0.425	11	0.585	14

#### Introduction and Human Development Indices

Block	Education index	Rank	Health index	Rank	ELI	Rank	HDI	Rank
Debra	0.727	12	0.693	3	0.503	4	0.641	4
Keshiary	0.734	9	0.506	26	0.356	22	0.532	21
Kharagpur-I	0.693	18	0.552	22	0.379	20	0.541	18
Kharagpur -II	0.695	1 <i>7</i>	0.559	18	0.351	23	0.535	19
Mohanpur	0.761	6	0.564	15	0.473	5	0.599	9
Narayangarh	0.729	11	0.611	11	0.368	18	0.569	15
Pingla	0.829	2	0.591	13	0.430	13	0.617	8
Sabang	0.837	1	0.559	17	0.460	7	0.619	7
Garhbeta-I	0.708	14	0.622	9	0.431	12	0.587	13
Garhbeta-II	0.675	24	0.621	10	0.349	25	0.548	16
Garhbeta-III	0.701	16	0.649	6	0.434	8	0.595	11
Keshpur	0.733	10	0.599	12	0.443	9	0.592	12
Medinipur	0.676	23	0.515	25	0.371	21	0.521	24
Salboni	0.721	13	0.644	8	0.422	14	0.596	10

Figure 1.1 Human Development Index for Blocks of Paschim Medinipur District



**Table 1.22 Distributions of Blocks by Value of Human Development Index** 

HDI Class	Number of blocks	Names of Blocks
0.423-0.499	3	Nayagram, Jamboni, Binpur-II
0.500-0.549	11	Binpur-I, Jhargram, Midnapore, Gopi-I, Sankrail, Keshiary, Gopi-II, Kharagpur-II, Kharagpur-I, Dantan-I, Garhbeta-II
0.550-0.599	7	Narayangarh, Dantan-II, Garhbeta=-I, Keshpur, Garhbeta-III, Salboni, Mohonpur
0.600 - 0.699	6	Pingla, Sabang, Chandrakona-II, Chandrakona-I, Debra, Ghatal,
0.700 and above	2	Daspur-I, Daspur-II

While value of HDI, varies widely across 29 blocks of the district from 0.423 in Nayagram to 0.772 in Daspur II, this variation is positively and significantly explained by foodgrains productivity, percentage of electrified villages, road density, i.e., road length per square km. of geographical area, cropping intensity, crop diversification index, per capita own source revenue of panchayats, percentage of non-agricultural workers, percentage of households above poverty line and percentage of cultivators to total workers, and is negatively and significantly explained by percentage of laterite soil area, percentage of SC and ST population, percentage of marginal workers and agricultural labourers.

Map 1.3 Human Development Index (HDI) in the Blocks of Paschim Medinipur



#### Introduction and Human Development Indices

#### 1.9 Conclusion

The wide variation in human development index and gender development index across the blocks need substantial explanations. The rest of this Report is devoted to seeking analysis of those factors and forces responsible for this wide variation.

#### 1.10 Plans for the Rest of the Report

- **Chapter 2** Regional profile of this district where accent is made on physical characteristics of the constituent blocks.
- **Chapter 3** Highlights issues relating to education and the related variables.
- **Chapter 4** Sets itself to the discussion of the process of building health index and the factors related to it.
- **Chapter 5** Discusses issues relating to economic livelihood index and related factors.
- **Chapter 6 P**resents gender dimensions including gender gap in literacy and work participation concerning human development.
- **Chapter 7** Analyses issues relating to community diversity in respect of human development.
- **Chapter 8** Discusses the questions concerning human vulnerability affecting human development
- **Chapter 9 D**iscusses issues relating to industrialization and urbanization of this district both of which form an important aspect of human development.
- **Chapter 10** The final chapter tries to delineate the way forward making some concluding observations.

# CHAPTER III BEGINNA PROFILE OF RECEIVABLISHES.



## Regional Profile of Paschim Medinipur District

#### **Chapter - II**

#### REGIONAL PROFILE OF PASCHIM MEDINIPUR DISTRICT

#### 2.1 Introduction

The 29 blocks that comprise Paschim Medinipur district vary widely in respect of geographical features, infrastructure and development indicators. It is held that variation in human development indices across the district can largely be explained by the variation in the regional characteristics.

The plan of the rest of this chapter is as follows. Section 2.2 presents some geographical features of the blocks and section 2.3 the relevant infrastructures. Section 2.4 highlights some human development indicators at the block level.

#### 2.2 Some Geographical Features

This section presents the regional profile of the district by types of net cropped area and textural characteristics of soil by block, classification of blocks by predominant soil, land use and cropping intensity by block and forest by sub-division.

#### 2.2.1 Types of Net Cropped Area

Of the 29 blocks of the district Daspur-II represents the highest proportion (61.52 per cent) of low land to net cultivated area (NCA) followed by Ghatal (52.24 per cent), the lowest proportion (2.97 per cent) being witnessed in Jamboni. Kharagpur-II has the highest proportion (74.79 per cent) of medium land, the lowest proportion being observed in Daspur-II. Jhargram block has the highest proportion (51.18 per cent) of high land followed by Nayagram (49.83 per cent) and Jamboni (48.70 per cent), the lowest proportion (8.36 per cent) being registered in Kharagpur-II (Table 2.1).

Table 2.1 Rural Area and Types of Net Cultivated Area by Block and Sub-Division, 2005-06

(in hectare)

Sub division	C.D Block	Net Cultivated Area (NCA)	% of Low land	% of Medium land	% of High land
	Chandrakona-I	17000	23.53	45.88	30.59
	Chandrakona-II	13100	23.25	53.87	22.88
Ghatal	Daspur-I	13200	50.7	33.73	15.57
	Daspur-II	13000	61.52	23.33	15.15
	Ghatal	17900	52.24	32.15	15.61
	Binpur-I	20052	21.71	48.02	30.27
	Binpur-II	21870	10.91	31.34	57.74
	Gopiballavpur-l	15265	27.66	36.01	36.33
Jhargram	Gopiballavpur-II	15565	9.98	53.19	36.83
	Jamboni	20450	2.97	48.33	48.7
	Jhargram	25425	12.05	36.77	51.18
	Nayagram	22826	12.97	37.19	49.83
	Sankrail	21153	22.85	41.92	35.23

Regional Profile of Paschim Medinipur District

Sub division	C.D Block	Net Cultivated Area (NCA)	% of Low land	% of Medium land	% of High land
	Dantan-I	20663	14.56	53.45	31.99
	Dantan-II	15887	11.6	66.46	21.94
	Debra	29287	12.56	67.92	19.52
	Keshiary	20720	29.54	55.26	15.2
Kharagpur	Kharagpur-I	18500	17.1	57.74	25.16
	Kharagpur-II	20440	16.85	74.79	8.36
	Mohanpur	12000	16.95	46.84	36.21
	Narayangarh	40046	25.05	62.43	12.53
	Pingla	18600	15.72	64.85	19.43
	Sabong	21083	17.21	36.97	45.82
	Garhbeta-I	18452	9.05	49.63	41.32
	Garhbeta-II	15100	30.64	55.72	13.64
Medinipur	Garhbeta-III	14500	19.23	43.34	37.43
Sadar	Keshpur	36219	14.51	63.57	21.92
	Medinipur	17700	17.36	53.36	29.28
	Salboni	17572	17.56	35.81	46.63

Source: PAO, Deptt. of Agriculture

#### 2.2.2 Textural Classification of Soil

- Textural classification of soil across the district shows that Nayagram block has the highest sandy area (6575 hectare) followed by Keshiary (5300 hectare), the lowest being in Chandrakona-I (60 hectare).
- Sandy loam is the predominant soil in the district, where the highest area belongs to Jhargram followed by Binpur-II, the lowest being observed in Dantan-II.
- Next to sandy loam, loam soil is predominant in the district, where the highest area belongs to Kharagpur-II followed by Debra, the lowest being registered in Dantan-I.
- Next to loam is, clay loam soil where the highest area belongs to Narayangarh followed by Sabong, the lowest being observed in Garhbeta-III.
- Clay soil is highest in Sabong followed by Pingla, the lowest being in Kharagpur-II.
- Sandy clay loam is highest in Ghatal followed by Daspur-II, the lowest being registered in Chandrakona-II (Table 2.2).

Table 2.2 Textural Classification of Soil by Block in Paschim Medinipur District, 2005-06

(Area in ha.)

Sub- division         Block Chandrakona-II         Sandy Loam         Loam Loam         Loam Loam         Loam Loam         Clay river         Catchments of river           Ghatial         Chandrakona-II         60         7262         1800         1200         4000         2000         Shilabati           Ghatal         116         6600         2000         786         2730         1120         Silaboti           Baspur-II         150         2393         3600         1213         3887         1796         Silaboti           Binpur-II         3845         12280         7180         -         770         -         Kangsaboti           Binpur-II         3845         12280         1780         -         -         -         Dulung Tarfeni           Gopiballavpur-II         2502         7146         2790         -         1346         -         Subamarekha           Jamboni         3245         15245         710         -         -         Dulung Keleghai           Jahrgram         3490         18826         3790         -         -         Dulung Keleghai           Jahrgram         3490         18525         1420         -         7         Dulung Keleghai									(/ trea iii iia.)
Ghatal         Chandrakona-II         60         7262         1800         1200         4000         2000         Shilabati           Ghatal         Daspur-I         336         3969         5090         800         1832         1486         Silaboti           Daspur-II         150         2393         3600         1213         3887         1796         Silaboti           Ghatal         400         600         5000         2980         5466         2020         Silaboti           Binpur-I         3885         12280         1780         -         770         -         Kangsaboti           Binpur-II         4826         18090         1066         -         770         -         Kangsaboti           Gopiballavpur-II         2502         7146         2790         -         1346         -         Subamarekha           Gopiballavpur-II         1749         10435         1772         -         1712         -         Subamarekha           Jamboni         3245         15245         710         -         -         Dulung Keleghai           Jargam         6575         13709         2570         -         906         -         Keleghai	Sub-	Block	Sandy	Sandy	Loam	Sandy Clay	Clay	Clay	Catchments of
Ghatlal         Chandrakona-ll         116         6600         2000         786         2730         1120         Silaboti           Daspur-II         336         3969         5090         800         1832         1486         Silaboti           Daspur-II         150         2393         3600         1213         3887         1796         Silaboti           Binpur-I         3845         12280         1780         -         770         -         Kangsaboti           Binpur-II         4826         18090         1066         -         -         -         Dulung Tarafeni           Gopiballavpur-II         1749         10435         1772         -         1712         -         Subamarekha           Jamboni         3249         18826         3790         -         1712         -         Dulung Keleghai           Jambani         3490         18826         3790         -         2200         -         Dulung Keleghai           Jambani         3410         15555         1425         -         720         -         Dulung Keleghai           Kapagam         6575         13709         2570         -         5190         1855         Subamarek	division								
Ghatal         Daspur-II         336         3969         5090         800         1832         1486         Silaboti           Daspur-II         150         2393         3600         1213         3887         1796         Silaboti           Ghatal         400         600         5000         2980         5466         2020         Silaboti           Binpur-I         3845         12280         1780         -         770         -         Kangsaboti           Binpur-II         4826         18090         1066         -         -         -         Dulung Tarafeni           Gopiballavpur-II         1749         10435         1772         -         1712         -         Subamarekha           Jamboni         3245         15245         770         -         -         Dulung Keleghai           Jamboni         3245         15245         710         -         -         Dulung Keleghai           Jamboni         3440         18826         3790         -         2200         -         Dulung Keleghai           Sankrall         3410         15555         1425         -         720         -         Dulung Keleghai           Kharagpur-I <td></td> <td></td> <td>60</td> <td>7262</td> <td>1800</td> <td>1200</td> <td>4000</td> <td>2000</td> <td></td>			60	7262	1800	1200	4000	2000	
Daspur-II		Chandrakona-II	116	6600	2000	786	2730	1120	Silaboti
Singur-    Singur-    Sa45   12280   1780   -     770   -     Kangsaboti	Ghatal	Daspur-I	336	3969	5090	800	1832	1486	Silaboti
Binpur-I		Daspur-II	150	2393	3600	1213	3887	1796	Silaboti
Binpur-II		Ghatal	400	600	5000	2980	5466	2020	Silaboti
Hargram		Binpur-I	3845	12280	1780	-	770	-	Kangsaboti
Jhargram   Gopiballavpur-II   1749   10435   1772   -   1712   -   Subamarekha   Jamboni   3245   15245   710   -   -   -   Dulung Keleghai   Jhargram   3490   18826   3790   -   2200   -   Dulung Keleghai   Nayagram   6575   13709   2570   -   906   -   Keleghai   Sankrail   3410   15555   1425   -   720   -   Dulung Keleghai   Dantan-II   1370   2890   570   -   5190   10855   Subamarekha   Dantan-II   -   270   790   -   3575   1128   Keleghai   Keshiary   5300   8700   3945   -   3362   -   Subamarekha   Kharagpur-II   1510   2815   14310   -   1110   790   Kangsaboti   Mohanpur   840   1030   1370   -   2104   6463   Kangsaboti   Narayangarh   2270   14474   3225   -   6770   15121   Pingla   -   -   -   -   3684   15788   Sabong   -   -   -   -   4500   1907   Medinipur   Sadar   Garhbeta-II   3895   12340   4550   -   839   -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -     -       -       -		Binpur-II	4826	18090	1066	-	-	-	Dulung Tarafeni
Jamboni   3245   15245   710   -   -   -   Dulung Keleghai     Jhargram   3490   18826   3790   -   2200   -   Dulung Keleghai     Nayagram   6575   13709   2570   -   906   -   Keleghai     Sankrail   3410   15555   1425   -   720   -   Dulung Keleghai     Sankrail   3410   15555   1425   -   720   -   Dulung Keleghai     Dantan-II   1370   2890   570   -   5190   10855   Subamarekha     Dantan-II   -   270   790   -   3575   1128   Keleghai     Keshiary   5300   8700   3945   -   3362   -   Subamarekha     Kharagpur-I   2110   13320   3230   -   1210   -   Kangsaboti     Kharagpur-II   1510   2815   14310   -   1110   790   Kangsaboti     Mohanpur   840   1030   1370   -   2104   6463   Kangsaboti     Narayangarh   2270   14474   3225   -   6770   15121     Pingla   -   -   -   -   3684   15788     Sabong   -   -   -   -   6720   17745     Sabong   -   -   -   4500   1907     Garhbeta-II   3895   12340   4550   -   839   -     Garhbeta-III   3895   12340   4550   -   839   -     Keshpur   2250   1508   7250   -   6147   20425     Medinipur   10002   6030   3000   -   1009   -     Salboni   2320   18588   3250   -   1456   -		Gopiballavpur-I	2502	7146	2790	-	1346	-	Subarnarekha
Hargram   3490   18826   3790   -   2200   -   Dulung Keleghai     Nayagram   6575   13709   2570   -   906   -   Keleghai     Sankrail   3410   15555   1425   -   720   -   Dulung Keleghai     Sankrail   1370   2890   570   -   5190   10855   Subamarekha     Dantan-II   -   270   790   -   3575   11228   Keleghai     Keshiary   5300   8700   3945   -   3362   -   Subamarekha     Kharagpur-I   2110   13320   3230   -   1210   -   Kangsaboti     Kharagpur-II   1510   2815   14310   -   1110   790   Kangsaboti     Mohanpur   840   1030   1370   -   2104   6463   Kangsaboti     Narayangarh   2270   14474   3225   -   6770   15121     Pingla   -   -   -   -   3684   15788     Sabong   -   -   -   4500   1907     Carhbeta-II   2210   5675   10425   -   4500   1907     Carhbeta-II   2260   10225   2210   -   311   -     Keshur   2250   1508   7250   -   6147   20425     Medinipur   10002   6030   3000   -   1009   -     Salboni   2320   18588   3250   -   1456   -	Jhargram	Gopiballavpur-II	1749	10435	1772	-	1712	-	Subarnarekha
Nayagram		Jamboni	3245	15245	710	-	-	-	Dulung Keleghai
Sankrail   3410   15555   1425   -   720   -   Dulung Keleghai		Jhargram	3490	18826	3790	-	2200	-	Dulung Keleghai
Dantan-I		Nayagram	6575	13709	2570	-	906	-	Keleghai
Dantan-II		Sankrail	3410	15555	1425	-	720	-	Dulung Keleghai
Keshiary   5300   8700   3945   -   3362   -   Subarnarekha     Kharagpur		Dantan-I	1370	2890	570	-	5190	10855	Subarnarekha
Kharagpur-I         2110         13320         3230         -         1210         -         Kangsaboti           Kharagpur-II         1510         2815         14310         -         1110         790         Kangsaboti           Mohanpur         840         1030         1370         -         2104         6463         Kangsaboti           Narayangarh         2270         14474         3225         -         6770         15121           Pingla         -         -         -         -         3684         15788           Sabong         -         -         -         -         6720         17745           Debra         2942         7375         12702         -         4500         1907           Garhbeta-I         2210         5675         10425         -         1654         -           Garhbeta-III         3895         12340         4550         -         839         -           Keshpur         2250         1508         7250         -         6147         20425           Medinipur         10002         6030         3000         -         1009         -           Salboni         2320		Dantan-II	-	270	790	-	3575	11228	Keleghai
Kharagpur         Kharagpur-II         1510         2815         14310         -         1110         790         Kangsaboti           Mohanpur         840         1030         1370         -         2104         6463         Kangsaboti           Narayangarh         2270         14474         3225         -         6770         15121           Pingla         -         -         -         -         3684         15788           Sabong         -         -         -         -         6720         17745           Debra         2942         7375         12702         -         4500         1907           Garhbeta-I         2210         5675         10425         -         1654         -           Garhbeta-III         3895         12340         4550         -         839         -           Keshpur         2250         1508         7250         -         6147         20425           Medinipur         10002         6030         3000         -         1009         -           Salboni         2320         18588         3250         -         1456         -		Keshiary	5300	8700	3945	-	3362	-	Subarnarekha
Mohanpur         840         1030         1370         -         2104         6463         Kangsaboti           Narayangarh         2270         14474         3225         -         6770         15121           Pingla         -         -         -         -         -         3684         15788           Sabong         -         -         -         -         6720         17745           Debra         2942         7375         12702         -         4500         1907           Garhbeta-I         2210         5675         10425         -         1654         -           Garhbeta-III         3895         12340         4550         -         839         -           Keshpur         2250         1508         7250         -         6147         20425           Medinipur         10002         6030         3000         -         1009         -           Salboni         2320         18588         3250         -         1456         -		Kharagpur-I	2110	13320	3230	-	1210	-	Kangsaboti
Narayangarh   2270   14474   3225   -   6770   15121     Pingla   -   -   -   -   3684   15788     Sabong   -   -   -   -   6720   17745     Debra   2942   7375   12702   -   4500   1907     Garhbeta-l   2210   5675   10425   -   1654   -     Garhbeta-ll   3895   12340   4550   -   839   -     Garhbeta-lll   2560   10225   2210   -   311   -     Keshpur   2250   1508   7250   -   6147   20425     Medinipur   10002   6030   3000   -   1009   -     Salboni   2320   18588   3250   -   1456   -	Kharagpur	Kharagpur-II	1510	2815	14310	-	1110	790	Kangsaboti
Pingla       -       -       -       -       -       3684       15788         Sabong       -       -       -       -       -       6720       17745         Medinipur Sadar       Debra       2942       7375       12702       -       4500       1907         Garhbeta-II       2210       5675       10425       -       1654       -         Garhbeta-III       3895       12340       4550       -       839       -         Garhbeta-III       2560       10225       2210       -       311       -         Keshpur       2250       1508       7250       -       6147       20425         Medinipur       10002       6030       3000       -       1009       -         Salboni       2320       18588       3250       -       1456       -		Mohanpur	840	1030	1370	-	2104	6463	Kangsaboti
Sabong         -         -         -         -         6720         17745           Debra         2942         7375         12702         -         4500         1907           Garhbeta-I         2210         5675         10425         -         1654         -           Garhbeta-II         3895         12340         4550         -         839         -           Garhbeta-III         2560         10225         2210         -         311         -           Keshpur         2250         1508         7250         -         6147         20425           Medinipur         10002         6030         3000         -         1009         -           Salboni         2320         18588         3250         -         1456         -		Narayangarh	2270	14474	3225	-	6770	15121	
Debra   2942   7375   12702   -   4500   1907		Pingla	-	-	-	-	3684	15788	
Medinipur       Garhbeta-I       2210       5675       10425       -       1654       -         Sadar       Garhbeta-III       3895       12340       4550       -       839       -         Garhbeta-III       2560       10225       2210       -       311       -         Keshpur       2250       1508       7250       -       6147       20425         Medinipur       10002       6030       3000       -       1009       -         Salboni       2320       18588       3250       -       1456       -		Sabong	-	-	-	-	6720	17745	
Medinipur       Garhbeta-II       3895       12340       4550       -       839       -         Sadar       Garhbeta-III       2560       10225       2210       -       311       -         Keshpur       2250       1508       7250       -       6147       20425         Medinipur       10002       6030       3000       -       1009       -         Salboni       2320       18588       3250       -       1456       -		Debra	2942	7375	12702	-	4500	1907	
Sadar       Garhbeta-III       2560       10225       2210       -       311       -         Keshpur       2250       1508       7250       -       6147       20425         Medinipur       10002       6030       3000       -       1009       -         Salboni       2320       18588       3250       -       1456       -		Garhbeta-I	2210	5675	10425	-	1654	-	
Keshpur       2250       1508       7250       -       6147       20425         Medinipur       10002       6030       3000       -       1009       -         Salboni       2320       18588       3250       -       1456       -	Medinipur	Garhbeta-II	3895	12340	4550	-	839	-	
Medinipur         10002         6030         3000         -         1009         -           Salboni         2320         18588         3250         -         1456         -	Sadar	Garhbeta-III	2560	10225	2210	-	311	-	
Salboni 2320 18588 3250 - 1456 -		Keshpur	2250	1508	7250	-	6147	20425	
		Medinipur	10002	6030	3000	-	1009	-	
District Total 70283 237350 104220 6979 75210 -		Salboni	2320	18588	3250	-	1456	-	
	District Total		70283	237350	104220	6979	75210	-	

Source : PAO, Deptt. of Agriculture

#### 2.2.3 Predominant Soil

Classification of blocks by predominant soil type shows that laterite soil to the tune of 90 per cent of net cultivated area is found in Garhbeta III, Binpur-II, Jhragram and Nayagram which rank low in value of human development index. On the other hand, 100 per cent alluvial soil characterizes 9 blocks, namely Sabong, Pingla, Debra, Dantan-I, Dantan-II, Mohanpur, Chandrakona-I, Daspur-I and Daspur-II which rank high in the human development ladder (Table 2.3 and Table 1. 24 referred back).

Table 2.3 Classification of Blocks by Predominant Soil Type in the District, 2005-06

Sub-	Name of Block	Net Cultivated	Predominant	% Total	Other Type	% of
division		Area	type	area		Total
		(in hectare)				Area
	Chandrakona-I	17000	Alluvium	100%	Letaritic	-
	Chandrakona-II	13100	Alluvium	90%	Letaritic	10%
Ghatal	Daspur-I	13200	Alluvium	100%	Letaritic	-
	Daspur-II	13000	Alluvium	100%	Letaritic	-
	Ghatal	17900	Alluvium	95%	Letaritic	5%
	Binpur-I	20052	Letaritic	70%	Alluvium	30%
	Binpur-II	21870	Letaritic	95%	Alluvium	5%
	Gapiballavpur-I	15265	Letaritic	60%	Alluvium	40%
Jhargram	Gapiballavpur-II	15566	Letaritic	55%	Alluvium	45%
	Jamboni	20450	Letaritic	85%	Alluvium	15%
	Jhargram	25424	Letaritic	90%	Alluvium	10%
	Nayagram	22826	Letaritic	90%	Alluvium	10%
	Sankrail	21153	Letaritic	80%	Alluvium	20%
	Dantan-I	20663	Alluvium	100%	-	-
	Dantan-I	15887	Alluvium	100%	-	-
	Debra	29287	Alluvium	100%	-	-
	Keshiary	20720	Letaritic	60%	Alluvium	40%
Kharagpur	Kharagpur-I	18500	Letaritic	60%	Alluvium	40%
	Kharagpur-II	20440	Alluvium	65%	Letaritic	35%
	Mohanpur	12000	Alluvium	100%	-	
	Narayangarh	40046	Alluvium	90%	Letaritic	10%
	Pingla	18600	Alluvium	100%	-	-
	Sabong	21083	Alluvium	100%	-	-
	Garbeta-I	18452	Letaritic	85%	Alluvium	15%
	Garbeta-II	15100	Letaritic	90%	Alluvium	10%
Medinipur	Garbeta-III	14500	Letaritic	95%	Alluvium	5%
Sadar	Keshpur	36219	Alluvium	75%	Letaritic	25%
	Medinipur	17700	Letaritic	55%	Alluvium	45%
	Salboni	17572	Letaritic	80%	Alluvium	20%

Source : PAO, Deptt. of Agriculture

#### 2.2.4 Land Use Pattern and Cropping Intensity

- Distribution of geographical area of the district and land use pattern across shows that Binpur-II block has the largest geographical area followed closely by Jhargram and Salboni and the smallest block being Mohanpur.
- Narayangarh block records the largest net cropped area, the smallest being again Mohanpur.
- Area under pasture and orchard is largest in Salboni followed by Jhargram, the smallest being observed again in Mohanpur.
- It is revealed that Pingla block recorded in 2005-06 the highest cropping intensity (199 per cent) followed by Daspur-I, Sabang and Garbeta-I, Jhargram. Sankrail and Jamboni registering the lowest (Table 2.4).

Map 2.1 lassification of Blocks of Paschim Medinipur District by Predominant Soil type.

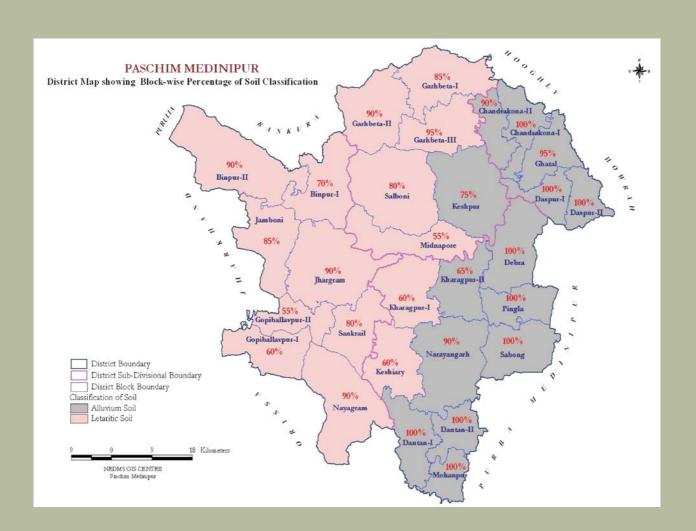


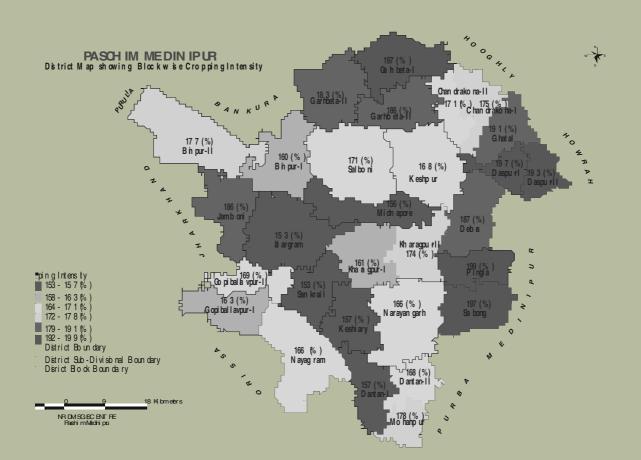
Table 2.4 Land Use in Paschim Medinipur District by Block, 2005-06

(Area in hectare)

		1						
Block	Geogra	Net	Area	Cultivable	Forest	Area	Gross	Cropp-
	-phical	Cropped	under	Wasteland	Land	under	Cropped	ing
	Area	Area	Pasture	/ Current fallow		more	Area	Intensity %
			& Orchard	land		than once		/0
Medinipur	33300	17700	950	570	5940	9927	27627	156
Salbani	52639	17572	2350	1450	18688	12427	29999	171
Keshpur	47567	36219	380	1453	2070	24526	60745	168
Garhbeta-I	36117	18452	1050	500	7460	17826	36278	197
Garhbeta-II	43970	15100	1576	1500	9750	12527	27627	183
Garhbeta-III	30308	14500	1375	900	6242	12411	26911	186
Medinipur Sub-division	243901	119543	7681	6373	50150	89644	209187	175
Kharagpur-I	32600	18500	825	300	4000	11327	29827	161
Kharagpur-II	26587	20440	618	300	0	15066	35506	174
Sabang	30075	21083	372	-	-	20526	41609	197
Pingla	21948	18600	300	300	_	18377	36977	199
Debra	34231	29287	499	1308	540	25376	54663	187
Narayangarh	49197	40046	760	1081	2152	26266	66312	166
Dantan-I	25552	20663	290	348	-	11876	32539	157
Dantan-II	18430	15887	90	33	_	10827	26714	168
Mohanpur	13994	12000	44	50	_	9327	21327	178
Keshiary	29352	20720	585	400	2314	11827	32547	157
Kharagpur Sub-division	281966	217226	4383	4120	9006	160795	378021	174
Jhargram	53951	25425	1760	960	15400	15326	40751	160
Nayagram	50560	22826	1170	4805	13600	15126	37952	166
Sankrail	27610	21153	446	420	1620	11275	32428	153
Jambani	33110	20450	375	1510	7640	10843	31293	153
Binpur-I	36243	20052	1087	1240	8240	15377	35429	177
Binpur-II	57574	21870	550	987	20220	13694	35564	163
Gopiballabpur-I	27392	15265	140	3409	5449	10547	25812	169
Gopiballabpur-II	19777	15565	225	1026	1110	13455	29020	186
Jhargram Sub-division	306217	162606	5753	14357	73279	105643	268249	165
Ghatal	23901	17900	585	30	-	16326	34226	191
Chandrakona-I	22228	17000	400	120	-	12827	29827	175
Chandrakona-II	17982	13100	487	72	1050	9326	22426	171
Daspur-I	16719	13200	470	-	-	12826	26026	197
Daspur-II	16614	13000	462	-	-	12127	25127	193
Ghatal Sub-division	97444	74200	2404	222	1050	63432	137632	185
District Total	929528	573575	20221	25072	133485	419514	993089	173

**Note:** 1 Cropping intensity is defined as ratio of gross cropped area to net cropped area.

Source: Department of Agriculture, Office of the Principal Agricultural Officer, Paschim Medinipur, **Annual Plan, 2005-06, Govt. of West Bengal** 



Map 2.2 Cropping Intensity by blocks of Paschim Medinipur District.

#### 2.2.5 Forests

There are four forest divisions in Paschim Medinipur district. Medinipur Forest Division has under it 50267.49 ha. of area in nine Territorial Ranges. Jhargram Forest Division comprising forest area over 621 Sq. km is one of the oldest forest divisions of South West Bengal. Kharagpur Forest Division is primarily a Social Forestry Division constituted in 1982 with a view to implementing Social Forestry Scheme / Project throughout erstwhile Midnapore district. Rupnarayan Planning and Survey Division since November 1995 emerged as a Territorial Division and it is also implementing different schemes related to soil conservation and social forestry works. The forest under each Division is managed with active cooperation of the Forest Protection Committees. Reserved forest and open scrub are largest in Medinipur Forest Division while protected forest which constitutes the highest percentage of total forest area of the district is largest in Jhargram Forest Division and un-classed forest area is largest in Kharagpur Division (Table 2.5).

Table 2.5 Area under Forest by Type and Division in Paschim Medinipur District, 2007

(in hectare)

		Forest Area			Forest Type		
Division	Reserved	Protected	Unclassed	Sal	Open	Plantation	Total
	Forest	Forest	Forest	Coppice	Scrub		
Medinipur	3814.05	43715.23	2738.21	19677.00	9620.00	4955.00	50267.49
Jhargram	100.00	80400.00	-	64320.00	8040.00	11000.00	80743.034
Rupnarayan	28.51	30429.45	0.65	16213.94	2741.95	8906.67	30458.61
Kharagpur	-	10054.00	4903.00	4764.00	3626.00	6537.00	14957.00
Total	3942.56	164598.68	7641.86	104975.00	24028.00	31398.00	176183.00

Source: District Planning Committee, Paschim Medinipur (2008), District Annual Plan 2008-09.

Map 2.3 River and Forest by type along with Block and Panchayat Boundary of Paschim Medinipur District



#### 2.2.6 Cropped Area and Crop Diversification Index

- In 2006-07, Sabong recorded the largest area under Aus rice (10.42 thousand hectares) followed by Garhbeta I and Garhbeta III blocks.
- The area under Aman crop was largest in Keshpur (37.46 thousand hectares) followed by Narayangarh and Debra, the lowest being registered in Daspur-I.
- The area under Boro cultivation was largest in Sabang (21.51 thousand hectares) followed by Debra and Pingla.
- Garhbeta-I block recorded the largest acreage under potato (12.72 thousand hectares) followed by Chandrakona-I, Chandrakona-II, Keshpur and Garhbeta-III.
- Garhbeta-I block registered the largest acreage under til (9.85 thousand hectares) followed by Chandrakona-I and Garhbeta-III.
- The acreage under mustard was largest in Sabong (2.76 thousand hectares) followed by Keshpur and Salboni.
- Garhbeta-I recorded the largest area under vegetables (5.31 thousand hectares) followed by Narayangarh and Jhargram (Table 2.6).

Table 2.6 Area under Principal Crops by Block Paschim Medinipur District, 2006-07

(in '000 hectares)

Block	Aus	Aman	Boro	Wheat	Potato	Til	Mustard	Vegetables	Others*
Medinipur	0.20	19.62	0.49	-	2.14	0.73	0.28	1.98	-
Salboni	-	24.41	0.89	1.14	7.26	5.43	2.26	1.91	-
Keshpur	1.75	37.46	6.94	2.22	9.28	5.08	2.69	2.16	0.433
Garhbeta-I	7.31	14.72	1.75	-	12.72	9.85	-	5.31	-
Garhbeta-II	0.58	18.30	1.67	1.69	8.93	7.11	0.09	2.92	-
Garhbeta-III	4.51	13.21	0.09	0.03	9.13	7.34	1.73	2.49	-
Kharagpur-I	-	1 <i>7</i> .13	1.00	-	-	0.41	0.02	1.29	-
Kharagpur -II	0.80	21.07	3.58	0.01	0.01	0.03	0.03	1.31	0.002
Sabang	10.42	21.40	21.51	0.05	0.06	0.12	2.76	2.28	1.295
Pingla	1.79	15.83	15.93	0.03	0	0.35	0.84	1.77	0.869
Debra	1.06	26.29	19.57	0.04	0.22	0.76	0.23	2.00	0.040
Narayangarh	0.15	36.02	7.95	-	-	2.04	0.08	2.97	-
Dantan-I	0.11	19.41	3.94	-	-	0.55	-	1.50	-
Dantan-II	0.20	13.45	5.62	-	-	0.11	0.01	1.14	-
Mohanpur	-	6.27	4.97	-	-	0.03	-	1.11	-
Keshiary	-	17.00	0.61	-	0.01	0.44	0.01	1.01	-
Jhargram	-	13.98	0.42	0.02	-	0.65	0.16	2.95	0.012
Nayagram	0.01	17.80	1.25	-	-	0.31	0.09	1.39	-
Sankrial	1.65	15.70	2.68	0.09	0.01	1.2	0.49	2.45	0.046
Jamboni	0.75	16.14	-	-	-	-	-	2.32	0.027

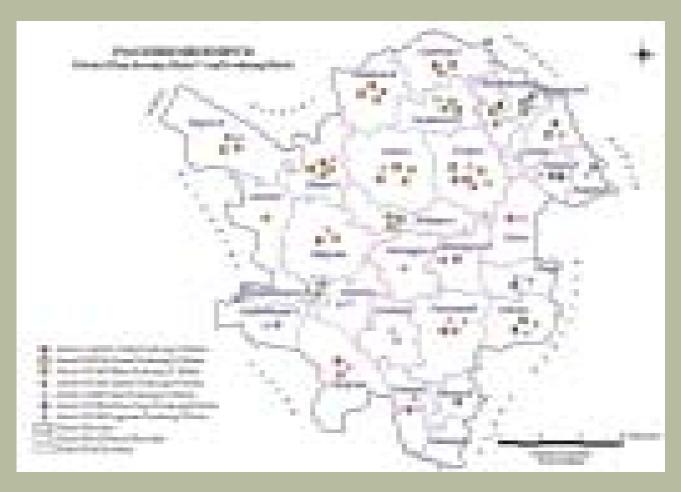
#### Regional Profile of Paschim Medinipur District

Block	Aus	Aman	Boro	Wheat	Potato	Til	Mustard	Vegetables	Others*
Binpur-I	0.88	23.86	0.56	1.06	2.52	2.72	1.66	1.81	0.160
Binpur -II	-	23.23	1.26	0.11	0.15	0.44	0.09	2.33	0.048
Gopiballavpur-I	3.48	11.48	0.87	0.09	0.09	0.32	1.43	2.35	0.028
Gopiballavpur-II	2.75	10.86	0.14	0.01	0.02	0.77	0.35	2.01	0.069
Ghatal	1.25	11.6	8.38	0.48	2.95	2.36	0.47	1.94	1.191
Chandrakona-I	1.73	15.84	4.17	0.06	10.16	8.41	0.66	1.46	0.087
Chandrakona-II	0.06	11.24	2.04	-	9.9	5.44	0.06	0.86	0.005
Daspur-I	0.01	7.72	8.98	-	3.44	1.38	0.27	2.49	1.096
Daspur-II	-	12.05	10.69	-	0.45	0.11	0.16	2.42	0.585

Note: \* includes area of Jute, Masur, Maskali, Khesari and Gram

Source: District Statistical Handbook Paschim Medinipur,

Map 2.4 Major Crop producing Blocks of Paschim Medinipur District.



Using the data on area under agriculture, we constructed crop diversification index for each block of the district for a couple of years using Thompson's Index of Diversity which is shown as follows.

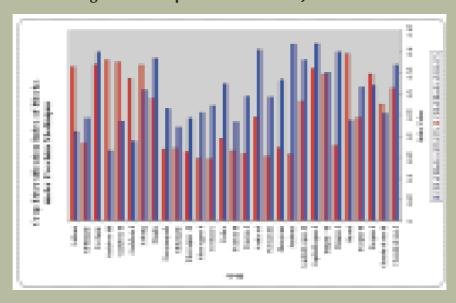
Thomson's Index =  $1-\Sigma$  Pi 2, where Pi = percentage share of each crop to gross cropped area.

The 29 blocks of the district experience differential scenario as regards cropping pattern index during the period from 1994-95 to 2006-07. Gopiballavpur I recorded the highest cropping index (0.415) followed by Jamboni (0.417) in 1994-95. Ghatal recorded the highest cropping pattern index (0.394) in 2005-06 followed by Garhbeta-III (0.379), the least being registered in Keshiary (0.147). In 2006-07, Gopiballavpur-I and Ghatal registered the highest cropping pattern index (0.385), though at reduced value during this period, followed by Garhbeta-III, Garhbeta-III and Garhbeta-I, Keshpur and Salboni, the lowest value being observed in again in Keshiary (0.154). The crop diversification index improved in 8 blocks, namely Chandrakona-II, Daspur-I, Ghatal, Sabong, Garhbeta-I, Garhbeta-III, Garhbeta-III, and Salboni (Table 2.7).

Table 2.7 Crop Diversification Index, 1994-95 to 2006-07

Block	1994-95	2005-06	2006-07	Change	Block	1994-95	2005-06	2006-07	Change
Chandrakona-I	0.368	0.313	0.296	-0.072	Debra	0.324	0.195	0.189	-0.135
Chandrakona-II	0.254	0.276	0.255	0.001	Keshiary	0.271	0.147	0.154	-0.117
Daspur-I	0.319	0.347	0.357	0.038	Kharagpur-I	0.256	0.149	0.163	-0.093
Daspur-II	0.316	0.244	0.263	-0.053	Kharagpur -II	0.242	0.163	0.165	-0.077
Ghatal	0.237	0.394	0.385	0.148	Mohanpur	0.222	0.172	0.197	-0.025
Binpur-I	0.399	0.177	0.338	-0.061	Narayangarh	0.264	0.169	0.178	-0.086
Binpur -II	0.351	0.347	0.200	-0.151	Pingla	0.384	0.290	0.284	-0.1
Gopi-I	0.419	0.359	0.385	-0.034	Sabang	0.310	0.368	0.357	0.047
Gopi-II	0.379	0.282	0.316	-0.063	Garhbeta-I	0.188	0.336	0.350	0.162
Jamboni	0.417	0.157	0.206	-0.211	Garhbeta-II	0.236	0.375	0.367	0.131
Jhargram	0.333	0.173	0.244	-0.089	Garhbeta-III	0.166	0.379	0.374	0.208
Nayagram	0.292	0.152	0.167	-0.125	Keshpur	0.399	0.369	0.349	-0.05
Sankrail	0.404	0.245	0.272	-0.132	Medinipur	0.242	0.183	0.201	-0.041
Dantan-I	0.295	0.159	0.167	-0.128	Salboni	0.210	0.364	0.349	0.139
Dantan-II	0.233	0.166	0.172	-0.061					

Figure 2.1 Crop Diversification - Joint bar



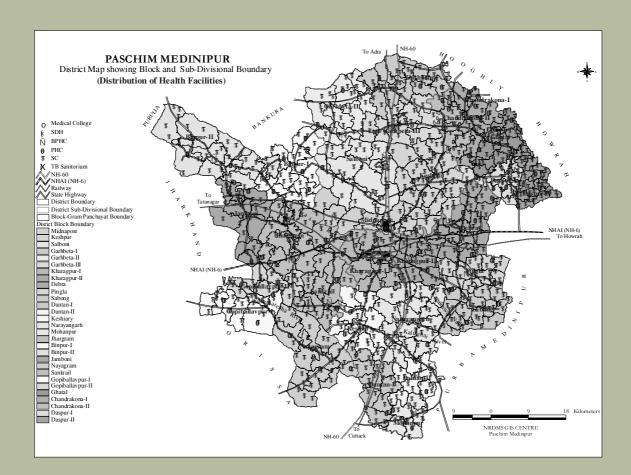
#### 2.3 Infrastructure at the Block Level

#### 2.3.1 Presence of Financial Institution(Banks etc.)

- One notable feature during the economic reform period is that across the blocks of the
  district the number of commercials bank and gramin bank offices remained constant except
  in three blocks, namely Jhargarm, Kharagpur-I and Salboni during 1994-95 to 2005-06.
  Thus, population served per commercial and gramin bank office increased during this
  period for most of the blocks.
- During 2005-06 Kharagpur-1 block recorded the highest number of commercial bank offices followed by Salboni and Jhargram, the lowest number of commercial bank offices (only 2) is located in Mohanpur block. During this period Chandrokona-2 block suffered most with 27000 populations served per commercial and gramin bank office during 2005-06 followed by Pingla block. The most advantageous situation is enjoyed by Midnapore and Keshiary block where only 9000 population is served by commercial and gramin bank office followed by Jhargram.
- On the other hand, number of co-operative societies for most of the blocks increased and also their number of members and working capital during the period 1994-95 to 2005-06.
   Debra block recorded highest number of co-operative societies (143). The lowest number of co-operative societies was located in Mohanpur block (35).
- Narayangarh block registered highest number (50277) of cooperative members followed by Ghatal during 2005-06.
- Daspur-1 block recorded the highest amount of working capital (Rs.127 cr.) followed by Ghatal (Rs.56.2 cr.), Jamboni block experiencing lowest working capital (Rs.1.46 cr.).
- Net collection from small savings registered significant increase in Paschim Medinipur district from Rs.248 cr. thousand in 2001-02 to Rs 420 cr. in 2005-06. Kharagpur-II block recorded in 2005-06 the highest small savings collection (Rs.60 cr.) followed by Daspur-1 (Rs.18.62 cr.).

#### 2.3.2 Health Institutions

The district has a total of 977 health-care institutions starting from the Health Sub-Centre level to the District Medical College & Hospital at Midnapore with 4858 beds (Table 4.2). To cater the population of 5619212 (estimated population for 2009) the existing health infrastructure is not sufficient. At present in the context of availability of health-care institutions, the district stands far below the national norms, especially in tribal areas of Jhargram and Medinipur Sadar sub-divisions.



Map 2.5 Location of Health Infrastructure in Paschim Medinipur District.

#### 2.3.3 Connectivity

- In terms of transportation and communication, NH 6 and 60 run through the heart of the district connecting it with several metropolitan cities of eastern India. State highways, district roads and village roads connect the villages with the towns and industrial centers.
- South Eastern Railways provides well spread railway connectivity.
- The survey conducted by Paschim Medinipur Zilla Parishad reveals that total road length (BT type) for the district was 1727.85 km. as in August 2007 and track / moorum road length amounted to 7101 km.
- BT type road length varied widely across blocks of the district, the highest being in Garbeta-I followed by Jhargram and the lowest being in Daspur-II. The track / moorum road length was highest in Jhargram followed by Keshpur, the lowest being in Chandrakona-I.
- Road length per sq. km. of geographical area in Paschim Medinipur district in August 2007 was less than 1 km. (0.97 km.), the highest being recorded in Debra block followed by Daspur-I and Daspur-II and the lowest being registered in Nayagram block (Table 2.8).

Map 2.6 Road Networks in Paschim Medinipur District.

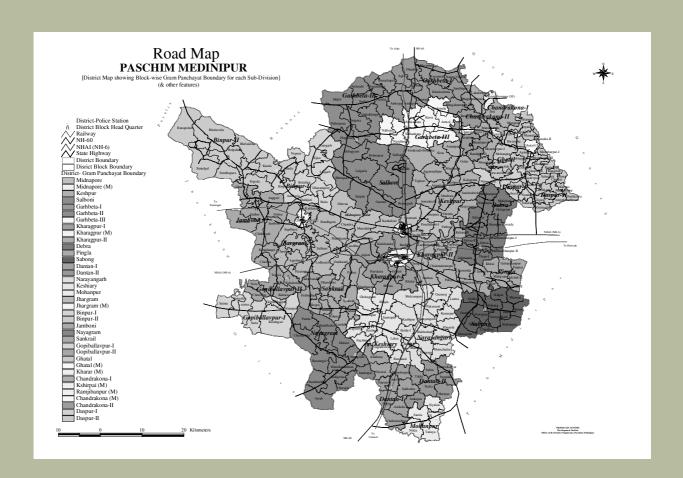


Table 2.8 Length of Roads by Block in Paschim Medinipur District, August, 2007

(in Km)

Block	ВТ	WBM	GRAVEL	TRACK/ MOORUM	TOTAL	Road length	Rank
Chandrakona-I	46.80	5.90	-	113.55	166.25	0.86	23
Chandrakona-II	49.25	-	-	127.00	176.25	1.17	12
Daspur - I	43.50	-	-	206.05	249.55	1.48	2
Daspur - II	17.25	-	-	227.85	245.10	1.48	3
Ghatal	52.50	1.00	-	211.00	264.50	1.22	10
Binpur - I	67.50	1.00	-	295.40	363.90	1.02	18
Binpur - II	74.00	-	-	381.60	455.60	0.78	25
Gopiballavpur - I	46.50	-	-	251.10	297.60	1.08	15
Gopiballavpur - II	45.00	-	-	165.00	210.00	1.09	14
Jamboni	53.15	-	-	219.95	273.10	0.86	24

Block	ВТ	WBM	GRAVEL	TRACK/ MOORUM	TOTAL	Road length	Rank
Jhargram	92.00	-	-	555.30	647.30	1.26	8
Nayagram	44.00	-	-	304.15	348.15	0.69	29
Sankrail	65.70	-	-	198.70	264.40	0.96	20
Dantan - I	44.00	-	-	217.00	261.00	1.02	19
Dantan - II	58.75	-	-	201.55	260.30	1.40	4
Debra	65.50	-	-	447.90	513.40	1.50	1
Keshiary	61.00	-	-	267.65	328.65	1.13	13
Kharagpur - I	57.00	3.50	-	213.45	273.95	0.87	22
Kharagpur - II	58.50	-	-	217.70	276.2	1.04	16
Mohanpur	20.00	-	-	165.00	185.00	1.35	5
Narayangarh	91.80	-	-	499.50	591.30	1.18	11
Pingla	37.00	-	-	256.50	293.50	1.31	6
Sabong	46.00	-	-	342.05	388.05	1.27	7
Garhbeta - I	128.25	-	-	246.55	374.8	1.04	17
Garhbeta - II	77.80	-	-	200.20	278.00	0.71	28
Garhbeta - III	49.00	-	-	180.45	229.45	0.74	27
Keshpur	68.50	-	-	534.10	602.60	1.25	9
Medinipur	82.60	-	-	209.30	291.90	0.90	21
Salboni	85.00	-	-	345.750	430.75	0.78	26
Total	1727.85	11.40	-	7801.30	9540.55	0.97	-

Source: Office of the District Engineer, Paschim Medinipur Zilla Parishad.

#### 2.3.4 Electricity

The supply of electricity in this district is through West Bengal State Electricity Board (WBSEB). From the super grid lines of 220 kv and 123 kv through substations (220 kv/132kv and 132 kv/33kv) power is supplied to 33 kv feeder lines and again through another set of substations (33 kv/11kv) power is supplied to 11 kv lines and subsequently through 11 kv/440v transformers the supply is effected in the rural areas.

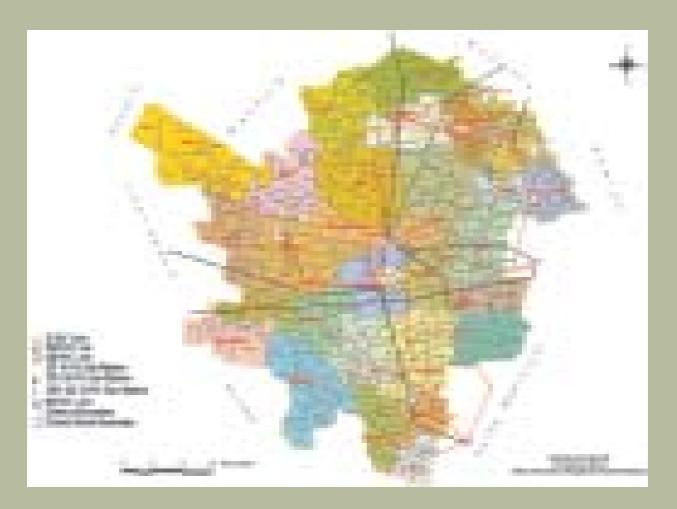
Percentage of mouzas electrified recorded significant increase during 2000 to 2007across the district but that varied widely among the blocks (Table 2.9) The intensification works under RGGVY (11th Plan) are going on at a full pace on emergent basis through PGCIL Agency and Sub-Agencies L & T and MAYTAS and it is expected that all the mouzas will be electrified by 2011. Scope for intensification have been identified for 5658 mouzas (Revised).

Total 5742 mouzas have been electrified i.e. 76.79 %. Mouza electrification extended 100 % in Daspur-II, Daspur-I, Ghatal, Garhbeta-I and Midnapore Sadar block and mouza electrification covered more than 55 % in all other blocks except Nayagram, Gopiballavpur-I and Sankrail block (Table 2.10).

Table 2.9 Percentage of Mouza Electrified by Block in Paschim Medinipur District, 2000 to 2007

Block	2000	2001	2002	2003	2004	2005	2006	2007
Chndrakona-I	88.64	88.64	88.64	88.64	91.67	91.67	92.42	92.42
Chaandrakona-II	87.02	87.02	87.02	87.79	88.55	88.55	91.60	91.60
Daspur-I	96.30	96.30	96.30	96.30	96.30	96.30	96.30	96.30
Daspur-II	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Ghatal	93.10	93.10	93.10	93.10	93.10	93.79	93.79	93.79
Binpur-I	24.77	25.32	25.50	25.50	42.68	44.12	44.67	44.67
Binpur-II	18.30	18.30	18.30	18.30	38.09	40.00	40.85	40.85
Gopiballavpur-I	6.94	6.94	6.94	6.94	26.39	26.85	26.85	27.78
Gopiballavpur-II	43.23	43.75	43.75	43.75	51.56	55.21	55.21	60.94
Jamboni	31.66	33.14	33.73	34.02	47.34	47.63	48.52	48.52
Jhargram	25.00	25.66	25.66	25.66	45.53	46.19	48.34	49.83
Nayagram	5.65	5.65	5.95	5.95	22.62	27.08	27.68	27.68
Sankrail	15.33	15.33	15.33	16.03	21.60	23.34	27.87	31.01
Dantan-I	39.70	39.70	39.70	39.70	48.74	49.75	51.76	60.30
Dantan-II	28.91	28.91	28.91	30.47	36.72	38.28	40.63	40.63
Debra	81.76	81.76	81.76	81.76	87.63	87.84	88.68	89.31
Keshiary	50.00	51.36	51.36	51.36	60.91	61.36	61.82	64.09
Kharagpur-I	25.28	25.65	25.65	25.65	33.83	34.57	36.06	48.70
Kharagpur-II	36.83	37.11	37.11	37.68	49.01	52.97	54.96	63.89
Mohanpur	59.22	59.22	59.22	59.22	67.96	71.84	73.79	73.79
Narayangarh	36.43	36.43	36.63	36.63	32.75	51.16	51.55	55.04
Pingla	82.97	82.97	82.97	82.97	86.26	86.26	86.26	87.91
Sabong	67.67	68.53	68.53	68.53	72.84	74.14	74.57	76.72
Garbeta-I	67.65	67.65	67.65	68.46	69.00	69.27	69.27	69.27
Garbeta-II	29.34	29.34	30.84	30.84	41.92	43.11	44.31	47.01
Garbeta-III	60.78	61.21	61.64	62.93	70.26	70.26	70.69	70.69
Keshpur	36.12	36.12	36.44	36.44	49.68	55.36	55.52	61.51
Medinipur	61.99	62.36	62.73	62.73	68.63	69.00	70.11	70.11
Salboni	50.19	50.19	50.19	50.19	56.06	57.01	57.58	58.71

Source: District Statistical handbook 2007 Paschim Medinipur District



Map 2.7 Power Network in Paschim Medinipur District.

Table 2.10 Present status of Mouza Electrification and Intensification works under RGGVY

SI.	Block	No. of	Inhabited	No. of De-	Mouza		Status of Intensification Work under RGGVY		
No.		Mouza	Mouza	populated Mouza	Elec- trified	Revised Scope	Job Started	Job Com- pleted	Electri- fication (2010)
1	Medinipur	268	227	41	227	228	228	228	100.00
2	Salboni	528	394	134	341	325	325	325	86.55
3	Keshpur	634	537	97	412	392	390	380	76.72
4	Garbeta-I	356	288	68	288	293	29	6	100.00
5	Garbeta-II	334	265	69	191	191	11	0	72.08
6	Garbeta-III	233	192	41	184	184	8	0	95.83
7	Kharagpur-I	268	226	42	125	125	100	92	55.31
8	Kharagpur-II	353	324	29	207	207	159	138	63.89

## Regional Profile of Paschim Medinipur District

				No. of		Status of	Intensificat	ion Work	Percentage
SI.	Block	No. of	Inhabited	De-	Mouza	u	nder RGGV	/Y	of Mouza
No.		Mouza	Mouza	populated	Elec-	Revised	Job	Job Com-	Electri-
				Mouza	trified	Scope	Started	pleted	fication (2010)
9	Debra	477	457	20	452	452	110	80	98.91
10	Pingla	182	171	11	170	170	96	70	99.42
11	Keshiary	220	199	21	144	144	70	28	72.36
12	Dantan-I	199	179	20	131	131	59	22	73.18
13	Dantan-II	128	116	12	115	59	9	0	99.14
14	Narayangarh	517	455	62	311	311	72	21	68.35
15	Mohanpur	103	101	2	90	93	21	5	89.11
16	Sabong	232	225	7	193	193	85	68	85.78
17	Jhargram	604	491	113	359	359	60	47	73.12
18	Binpur-l	553	417	136	305	305	2	2	73.14
19	Binpur-II	470	389	81	226	226	15	9	58.10
20	Jamboni	388	281	107	201	201	47	18	71.53
21	Nayagram	336	297	39	118	118	18	10	39.73
22	Sankrail	287	248	39	116	116	27	17	46.77
23	Gopiballavpur-I	216	196	20	86	86	19	11	43.88
24	Gopiballavpur-I	192	174	18	124	124	11	6	71.26
25	Chandrakona-I	132	127	5	125	123	123	104	98.43
26	Chandrakona-II	131	122	9	121	121	121	119	99.18
27	Ghatal	145	138	7	138	139	139	133	100.00
28	Daspur-I	162	156	6	156	155	155	153	100.00
29	Daspur-II	87	86	1	86	87	80	50	100.00
	Total:	8735	7478	1257	5742	5658	2589	2142	76.79

Source: Project Manager, WBACDCL



Map 2.8 Present status of Electrification in Paschim Medinipur District

#### 2.3.5 Industries

Paschim Medinipur had 246600 number of enterprises (organized and unorganized) in 2005 and 91.64% of these are non-agricultural. Annual growth of these enterprises had been 2% over the period 1985 - 2005 and most of these happened to be located in rural areas. The main industrial area is Kharagpur and several small scale clusters are found in Midnapore, Chandrakona, Jhargram, and Garhbeta. In Salboni, a mint is functioning till date. Day by day, big investors and industrial houses are now showing their interest establishing large industries in this district. Already Jindal Group of Industries has initiated the construction of a giant steel plant.

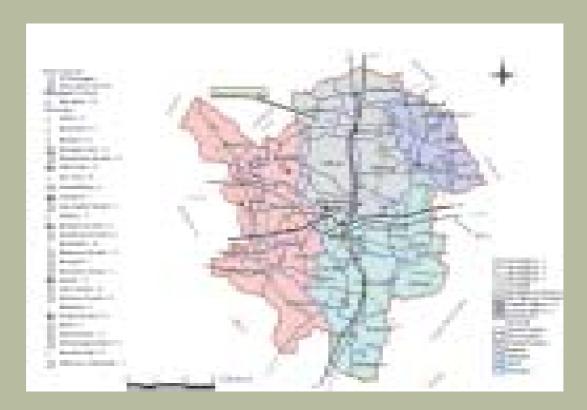


Map 2.9 Industrial Growth Centre in Paschim Medinipur District.

#### **2.3.6** Tourism

Tourism activities are concentrated in three main clusters, viz. Medinipur-Kharagpur town, Garhbeta - Chandrakona town and Jhargram characterized by temples, heritage areas, beautiful rivers, green forests and hillocks. But due to infrastructural underdevelopment neither flow of tourists nor employment in this sector is noteworthy. Indian Institute of Technology at Kharagpur and Vidyasagar University at Medinipur are prominent educational centres in this district.

Paschim Medinipur is known as the land of freedom fighters, social reformers and martyrs like Khudiram, Matangini Hazra, Hemchondra Kanoongo and many more. It also has an enriched and diversified legacy of socio-cultural activities, especially the customs and traditions of different tribal groups like Lodhas, Mundas and Santhals.



Map 2.10 Tourist Spots in Paschim Medinipur District.

#### 2.3.7 Panchayati Raj Institutions

- The highest institution for local governance in the district is the Zilla Parishad.
- All the 29 C.D. Blocks are governed by the respective Panchayat Samities.
- At the lowest level, 290 Gram Panchayats and 3058 Gram Sansads are actively taking part in rural self governance and development.
- There are in total 4 sub-divisions, viz. Medinipur Sadar, Kharagpur, Jharagram and Ghatal and 27 police stations in the district.
- For urban areas, 8 municipalities and Medinipur-Kharagpur Development Authority (MKDA) are working towards better urban governance.

- The distribution of administrative units in Paschim Medinipur district in 2008 by subdivision shows that Kharagpur sub-division has the largest number of Panchayat Samities, Gram Panchayats and Gram Sansads and households, while Ghatal sub-division has the largest number of municipalities and municipal wards, and Jhargram sub-division has the largest number of mouzas and inhabited mouzas.
- Across blocks of the district, it is observed that Narayangarh block has the largest number of Gram Panchayats followed by Keshpur.
- ➤ Keshpur block has the largest number of Gram Sansads followed by Debra and Narayangarh. Keshpur block has the largest number of mouzas and inhabited villages followed by Narayangarh.

Map 2.11 Administrative Units in Paschim Medinipur District

#### 2.4 Basic Indicators at the Block Level

Paschim Medinipur district registered increase in the percentage share of urban population from 10.93 in 1981 to 12. 66 in 1991. It showed decrease to 12.59 per cent in 2001. Jhargram has been the least urbanised sub-division, which shows increasing trend in the percentage share of urban population from 3.62 in 1981 to 5.26 in 2001. Ghatal sub-division also recorded increasing trend of urbanization; the percentage share of urban population increased from 11. 56 to 12.60 during 1991 to 2001. On the other hand, Kharagpur sub-division with its highest urban population ratio (16.05 per cent in 1981) showed a declining trend in this ratio to 15.60 per cent in 1991 and further to 14.41 per cent in 2001. Sadar sub-division was relatively low urbanised (8.19 per cent of urban population) in 1981, which increased sharply to 14.60 per cent in 1991 to decline, however,

- to 12.59 per cent in 2001. The sudden increase in the urban population ratio of this subdivision may be explained by increase in the area of the Medinipur municipality during 1981 to 1991 (from 10.35 sq. km. in 1981 to 15.62 sq. km. in 1991). During 1981 to 1991 decadal growth of urban population was highest in Sadar sub-division (137.5 per cent) followed by Jhargram (55.55 per cent) and Ghatal (25.64 per cent). But during 1991-2001 Jhargram sub-division recorded the highest growth of urban population (28.19 per cent) followed by Ghatal (17.35 per cent) and Kharagpur (6.05 per cent) while Sadar sub-division registered the lowest decadal growth (2.63 per cent).
- Decadal growth of population declined perceptibly across different blocks of Paschim Medinipur district during 1991-2001 compared to the earlier decade. The growth rate was highest in Garhbeta-III Block followed by Chandrakona-I, the lowest being in Gopiballavpur II block during 1981-1991. During the next decade it was highest in Garbetta-I followed by Medinipur block, the lowest being experienced by Daspur-II block. Urban population was highest in Kharagpur municipality followed by Medinipur, the lowest population being registered in Kharagpur municipality in 2001.
- Daspur-II block recorded in 2001 the highest population density followed by Daspur-I, the lowest being experienced by Nayagram. Of the municipal towns the highest population density was recorded by Medinipur municipality followed by Jhargram and Kharagpur. Of the blocks of the district the highest population density was registered in Ghatal followed by Garbeta-III and Sabang, the lowest being experienced by Nayagram. Daspur-II recorded the highest sex ratio followed by Daspur-I and Binpur II, the lowest sex ratio was registered by Ghatal municipality in 2001. The sex ratio in blocks of the district for 1991 and 2001 is shown in Figure 2.2.

Table 2.11 Population Density and Sex Ratio by Block, 1991 to 2001

Block	Populatio	n density	Sex	ratio	Block	Population	n density	Sex r	atio
	1991	2001	1991	2001		1991	2001	1991	2001
Chandrakona-I	535	610	953	958	Debra	644	745	953	975
Chandrakona-II	582	710	950	955	Keshiary	395	452	950	959
Daspur-I	942	1044	977	1017	Kharagpur-II	515	609	958	965
Daspur-II	1188	1246	987	1043	Kharapur-I	432	757	953	949
Ghatal	789	883	970	973	Mohanpur	607	701	959	960
Binpur -II	223	250	970	983	Narayangarh	452	534	943	958
Binpur-I	148	389	954	957	Pingla	666	762	927	934
Gopiballavpur-I	290	344	936	942	Sabang	702	783	947	943
Gopiballavpur-II	428	486	931	947	Garhbeta-I	468	554	946	949
Jamboni	283	320	955	961	Garhbeta-II	283	334	953	959
Jhargram	260	298	947	957	Garhbeta-III	377	950	950	947
Nayagram	212	247	963	979	Keshpur	500	597	950	953
Sankrail	318	371	953	971	Medinipur	388	488	954	949
Dantan-I	496	589	943	961	Salboni	256	299	963	961
Dantan-II	290	724	939	952					

Source: Census of India, West Bengal, Relevant Issues



Figure 2.2 Sex Ratio in Blocks , 1991 and 2001

- Distribution of population by religion during 1981 to 2001 shows that Hindus formed the majority in all the blocks. The percentage of Muslim population was highest in Keshpur block followed by Medinipur, the lowest being experienced by Nayagram block. Christian population was highest in Keshiary block followed by Nayagram.
- Keshpur block recorded in 2001, the highest Scheduled Caste population followed by Ghatal the lowest being experienced by Mohanpur block.
- Binpur-II block registered the highest Scheduled Tribe population followed by Narayangarh, the lowest being experienced by Daspur-II block in 2001.
- Chandrakona-I block registered the highest percentage of SC population (35.04) in 2001 followed by Ghatal (31.86), Gopiballavpur II (29.31) and Chandrakona-II (25.44) and Binpur I (25.23) and Keshpur (25.14).
- Binpur-II recorded the highest percentage of ST population (42.11) followed by Nayagram (39.85), Gopiballavpur I (34.67), Keshiary (33.61) and Binpur I (29.33).
- Daspur-II block recorded the highest percentage of general caste population (87.12) in 2001 followed by Mohanpur (84.73), Dantan II (84.45), Pingla (82.22) and Sabong (80.34), Daspur-I (72.80) and Garhbeta III (70.30), the lowest being registered in Nayagram (41.79).
- Keshpur block has the highest percentage of muslim population to total population (26.64) followed by Medinipur Sadar (23.66). (Table 2.12).

Table 2.12 Percentage of Scheduled Caste, Scheduled Tribe and General Caste Population, 2001

Block	SC %	ST%	GC %	Muslim%	Total%
Chandrakona - I	35.04	4.37	60.59	14.89	100
Chandrakona - II	25.44	3.64	70.92		100
Daspur - I	24.20	3.00	72.80	6.22	100
Daspur - II	12.69	0.19	87.12		100
Ghatal	31.86	1.70	66.44	9.24	100
Binpur - I	25.23	29.33	45.44	2.16	100
Binpur - II	14.65	42.11	43.24		100
Gopiballavpur - I	22.06	34.67	43.27	0.69	100
Gopiballavpur - II	29.31	23.72	46.97		100
Jamboni	15.44	29.77	54.79	6.31	100
Jhargram	13.17	23.05	63.78	3.27	100
Nayagram	18.36	39.85	41.79	1.07	100
Sankrail	16.94	24.58	58.48	1.56	100
Dantan - I	16.15	16.11	67.74	7.56	100
Dantan - II	8.93	6.62	84.45		100
Debra	12.15	19.55	68.30	9.53	100
Keshiary	21.20	33.61	45.19	1.29	100
Kharagpur - I	16.80	15.74	67.46	9.07	100
Kharagpur - II	17.47	25.29	57.24		100
Mohanpur	10.28	4.99	84.73	9.24	100
Narayangarh	18.17	21.57	60.26		100
Pingla	8.22	9.55	82.23	12.38	100
Sabong	13.58	6.08	80.34	5.31	100
Garhbeta - I	22.05	8.12	69.83		100
Garhbeta - II	23.62	20.64	55.74	16.96	100
Garhbeta - III	15.56	14.14	70.30		100
Keshpur	25.14	5.90	68.96	26.64	100
Medinipur	18.76	18.77	62.47	23.66	100
Salboni	16.88	17.91	65.21	2.84	100
Total:	18.05	14.87	67.08	11.33	100

Note: Total percentage is excluding Muslim Population

Source: Census of India 2001

The percentage of SC and ST population and that of minority to total population across the district has got relevance to human development level.

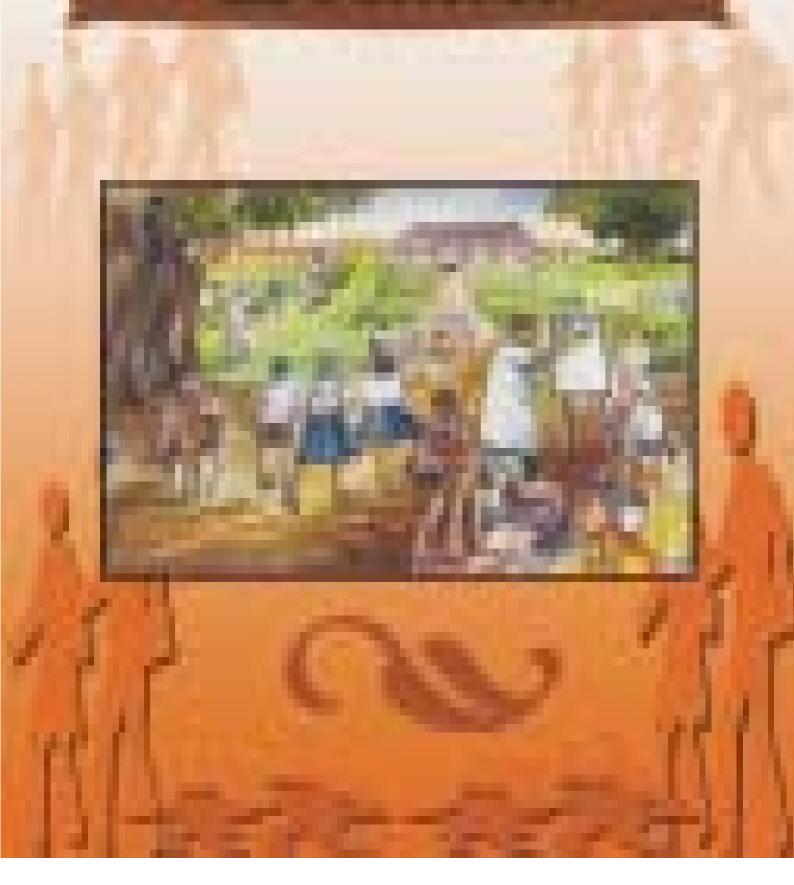
- Daspur-II registered the highest literacy rate followed by Pingla and Sabang, the lowest being experienced by Nayagram in 2001. Gender gap in literacy (i.e, the difference between male and female literacy rates) increased during 1981 to 1991 in most of the blocks, but during the next decade i.e, during 1991 to 2001 the gap diminished almost in all blocks.
- During 2001 the highest gender gap in Literacy was experienced by Nayagram (30 %) followed by Binpur-II (29.6 %), the lowest being recorded by Daspur-II (18.5 %).
- Of the municipal towns the highest literacy rate was recorded by Ghatal followed by Jhargram, the lowest being registered by Chandrakona and Khirpai in 2001.
- In 2001 Sabang block registered the highest literacy rate among the SC population and Jamboni recorded the highest literacy among ST population in 2001, the lowest being registered by Daspur-I.

#### A summing up

To sum up, 29 blocks of the district present differential natural resources and demographic indicators. The infrastructural indicators and their growth also vary substantially across blocks. These factors explain largely the differential human development scenario of the district across its blocks. The percentage of predominant laterite soil and SC and ST population are seen to be negatively and significantly correlated while road length per sq. km. and percentage of villages electrified are positively and significantly associated with the level of human development. This suggests the development of infrastructures like road and electricity and also provision of full time employment to marginal workers for the improvement of the human development across the district.



# CHAPTERIII



# Education

## **Chapter - III**

## **Status of Education**

#### 3.1 Introduction

Education plays a crucial role in human development. It helps the human beings achieving one of the most important aspects of human life. Achievement of much desired knowledge is important not only for its own sake; it also acts as an instrument for the attainment of a decent standard of living and an indirect instrument for the attainment of a long and healthy life. It is very difficult to capture the achievement of knowledge by a single variable. It can be reflected by a number of partial achievements or ends like enrolment ratio, drop out rate (inversely), literacy rate, adult literacy rate, female literacy rate, literacy rate of the weaker sections etc. and a number of instruments or means like availability and access to schools, teacher-student ratio, basic amenities available in the schools, etc. A large number of variables, means and ends, may be identified to explain the present status of achievement of knowledge of a society. However, it is very difficult to identify the relative importance of the variables and to arrive at a combined indicator reflecting the development in the present aspect of human life.

The United Nations Development Programme (UNDP), in its Human Development Reports (HDR), considers the combined primary and secondary enrolment ratio as the simple indicator of educational achievement of the children in the school going age and the simple adult literacy rate as the indicator of educational achievement of the adults. It combines the indexes of these two indicators through a weighted average with weight to combined primary and secondary enrolment ratio and weight to adult literacy. In the National Human Development Report of India (2003) only the general literacy rate was used for the calculation of educational attainment index and in the Human Development Report of West Bengal (2004) two indicators, viz., the general literacy rate and the percentage of children in the age group 6 to 14 years attending school were used for the calculation of educational attainment index by attaching weight to literacy rate index and weight to attendance index.

Thus, though status of education of the people in any region can be measured by a number of variables, only those variables which measure the attainment of knowledge are used in the construction of Human Development Index.

#### 3.2 Indicators of Development in Education



Development in Education of the people in any region can be viewed by a large number of variables and they can be classified as instruments and outcomes or achievements, and also as flows and stocks (assets). National University of Educational Planning and Administration (NUEPA), New Delhi, through its District Information System for Education (DISE) and the Government of India (MHRD, Department of School Education and Literacy) have identified as much as 23 indicators for the calculation of Educational Development Index (EDI) separately for Primary and Upper Primary levels of education and also a composite index for the entire Elementary education exclusively based on the DISE data.

#### Education

Variables used in computing Educational Development Index (EDI) are identified under four components as mentioned below. As mentioned earlier, some of these variables act as instruments and others are outcome, some are flows and some are stocks:

## I. Variables used under the component ACCESS are

- Percentage of Habitations not Served
- Availability of Schools per 1000 Child Population
- Ratio of Primary to Upper Primary Schools/Sections (only at Upper Primary stage)

#### II. Variables used under the component INFRASTRUCTURE are

- Average Student-Classroom Ratio
- Schools with Student Classroom Ratio 60
- School with Drinking Water facility
- School with Common Toilet
- Schools with Girl's Toilet

#### III. Variables used under the component TEACHERS' SUPPORT are

- Percentage of Female Teachers
- Pupil-Teacher Ratio
- School with Pupil-Teacher Ratio 60
- Single-Teacher Schools (in schools with more than 15 students)
- Percentage of Schools with 3 teachers
- Teachers without Professional Qualification

#### IV. Variables used under the component OUTCOMES are

- Gross Enrolment Ratio Overall
- Participation of Scheduled Castes Children: Percentage SC Population (2001 Census) Percentage
   SC Enrolment
- Participation of Scheduled Tribes Children: Percentage ST Population (2001 Census) Percentage ST Enrolment.
- Gender Parity Index in Enrolment
- Repetition Rate
- Drop-out Rate
- Ratio of Exit Class over Class I Enrolment (only at Primary stage)
- Percentage of Passed Children to Total Enrolment
- Percentage of Appeared Children passing with 60 per cent and more marks

#### 3.3 Status of Education

**General Literacy:** Medinipur district is one of the developed districts of West Bengal in education,. According to the 2001 census the literacy rate in Medinipur district was 75.2% just after Kolkata, North 24 Parganas, Howrah and Hooghly. The said rate for Paschim Medinipur district was slightly low at 70.4%. Literacy rates for the district for rural and urban areas and for male and female population are given in Table 3.1.

**Table 3.1 Literacy Rates in Paschim Medinipur District, 2001** 

Sub- divison	Literacy Rate Total	Male Literacy Rate	Female Literacy Rate	Gender Gap	Rural Literacy Rate	Urban Literacy Rate	Rural Male Literacy Rate	Rural Female Literacy Rate	Urban Male Literacy Rate	Urban Female Literacy Rate
Ghatal	75.10	64.80	60.20	24.60	74.00	81.90	84.10	64.00	89.60	73.80
Jhargram	63.50	76.70	49.70	27.00	62.20	84.80	75.80	48.10	90.90	78.40
Kharagpur	73.50	83.90	62.60	21.30	72.10	81.30	83.10	60.60	87.90	74.20
Medinipur Sadar	67.50	78.10	56.30	21.80	64.90	84.10	64.90	52.80	89.00	79.00
District	70.40	81.30	59.10	22.20	68.70	82.40	68.70	56.80	88.70	75.70

Source: Census-2001, Paschim Medinipur

Though the overall literacy rate of the district is above 70% the picture is slightly gloomy in western part of the district i.e. Jhargram Sub-division and certain parts of Medinipur Sadar Sub-division. These areas are mainly dominated by scheduled tribes and primitive tribe groups who remain economically and educationally backward for over the years. Two blocks of Jhargram Sub-division viz. *Nayagram* and *Gopiballavpur-I* are considered as Educationally Backward Block (EBB) on the basis of its low female literacy percentage. It may be mentioned here that apart from these two declared EBBs there are some more blocks which are very close to these EBBs by character.

Female education is enough linked with the human development and it is a strong predictor of socio-economic, demographic and health status of a region. The simplest indicator to measure it is obviously the female literacy rate. Higher the value of female literacy rate better is the district, i.e. higher the Index value. Table 3.2 depicts the block wise literacy rate of total population as well as that of underprivileged sections (i.e. female, SC & ST population). Still there are six blocks with female literacy percentage below 50% and fourteen more blocks lie within the range of 51-60% in respect of female literacy rate. The figures are not at all satisfactory. Now the focus of the district administration is put on increasing the female literacy rate by 2011. Initiatives are being taken to promote adult literacy specially among women in combination with skill training and income generating activities. It is primarily aimed to eradicate illiteracy among women self help group members. The goal is to reach the target of female literacy to about 70% and the total literacy rate to be hiked by at least 10%. It demands the involvement of all privileged sections. Political will indeed will play a key role in this aspect.

# Districtwise survey on Literacy in West Bengal, 2008-09 by *ADVANCED SURVEY RESEARCH CENTRE* - A brief report

The survey was done to examine how well the training is being imparted to the learners in the centres for 'Continuing Education Programme' (CEP) and 'Literacy Extension Programmes' (LEP). Four municipalities and four blocks were randomly selected in each district for survey. 100 learners in urban and 100 in rural centres were examined through a designed test questions on language (68 marks) and arithmetic (36 marks). Gradation was as follows:-

**Excellent**: total score in between 94-104; **Good**: total score in between 68-94; **Just literate**: total score in between 48-68; **Rather illiterate**: < 26 in language & < 20 in arithmetic

### Findings:-

Literacy rate in aggregate	NSSO (2004-05)	ASRC CEP/CLP-wise (2008)	ASRC household-wise (only for 7-65 yrs.) (2008)
Female	58.13	33.72	79.78
Male	73.61	48.73	78.74
Total	65.98	43.04	79.13

**Suggestions of ASRC:-** To bring the local people to the centres continuous persuasion and encouragement is needed. Efforts should be made to improve the local lighting facilities to the extent possible.

Table 3.2 Block wise literacy percentage highlighting the literacy rate of underprivileged sections

								,		•	0		
S	BLOCK	MALE	FEMALE	TOTAL	GAP		SC	%			ST	%	
<u>Q</u>						MALE	FEMALETOTAL	OTAL	GAP	MALE	<b>FEMALE</b>	TOTAL	GAP
-	Chandrakona-I	80.30	60.50	70.40	19.80	55.16	32.28	43.72	22.88	44.05	21.04	32.55	23.01
2	Chandrakona-II	76.30	56.30	66.30	20.00	52.05	29.08	40.57	22.97	44.92	19.70	32.31	25.22
3	Daspur-I	85.10	64.50	74.80	20.60	62.20	35.13	48.67	27.07	38.19	16.40	27.30	20.79
4	Daspur-II	89.20	70.70	79.95	18.50	61.45	42.28	51.87	19.17	41.88	23.41	32.65	18.47
5	Ghatal	84.70	62.10	73.40	22.60	62.12	36.93	49.53	25.19	44.17	19.85	32.01	24.32
9	Binpur-1	76.30	46.70	61.50	29.60	54.23	26.07	40.15	28.16	59.71	31.06	45.39	28.65
_	Binpur-II	76.50	47.60	62.05	28.90	63.21	35.38	49.30	27.83	58.58	31.57	45.08	27.01
∞	Gopiballavpur-I	70.50	42.40	56.45	28.10	51.15	24.64	37.90	26.51	47.31	19.44	33.38	27.87
6	Gopiballavpur-II	77.00	49.60	63.30	27.40	56.85	28.91	42.88	27.94	54.99	25.99	40.49	29.00
10	Jamboni	80.20	53.30	66.75	26.90	63.83	37.64	50.74	26.19	59.51	30.72	45.12	28.79
1	Jhargram	76.90	51.70	64.30	25.20	54.64	30.65	42.65	23.99	52.77	25.93	39.35	26.84
12	Nayagram	70.60	40.60	55.60	30.00	53.09	27.30	40.20	25.79	44.46	21.10	32.78	23.36
13	Sankrail	78.40	52.90	65.65	25.50	57.44	32.62	45.03	24.82	56.38	29.52	42.95	26.86
14	Dantan-I	78.80	53.70	66.25	25.10	63.10	38.50	50.80	24.60	42.04	16.63	29.34	25.41
15	Dantan-II	84.10	62.70	73.40	21.40	68.27	46.19	57.23	22.08	68.41	19.40	43.91	49.01
16	Debra	83.90	62.10	73.00	21.80	65.34	41.17	53.26	24.17	53.07	25.45	39.26	27.62
17	Keshiary	78.70	55.20	66.95	23.50	63.39	41.10	52.25	22.29	55.77	29.31	42.54	26.46
18	Khargrapur-I	78.20	54.70	66.45	23.50	62.55	38.16	50.36	24.39	51.83	25.99	38.91	25.84
19	Khargrapur-II	78.90	55.50	67.20	23.40	94.09	36.90	48.68	23.56	50.59	23.72	37.16	26.87
70	Mohanpur	85.90	64.00	74.95	21.90	67.53	42.12	54.83	25.41	41.37	14.47	27.92	26.90
21	Narayangarh	81.70	29.00	70.35	22.70	68.38	45.86	57.12	22.52	49.52	23.78	36.65	25.74
22	Pingla	88.50	68.40	78.45	20.10	60.69	30.03	49.56	39.06	57.94	29.09	43.52	28.85
23	Sabong	89.30	67.30	78.30	22.00	73.52	49.64	61.58	23.88	54.02	26.13	40.08	27.89
24	Garhbeta-I	74.90	53.00	63.95	21.90	52.38	28.94	40.66	23.44	48.17	21.48	34.83	26.69
25	Garhbeta-II	78.70	54.00	66.35	24.70	52.57	29.48	41.03	23.09	57.54	30.42	43.98	27.12
76	Garhbeta-III	75.90	54.00	64.95	21.90	54.10	32.91	43.51	21.19	49.65	22.25	35.95	27.40
27	Keshpur	78.90	54.50	02'99	24.40	33.98	27.41	30.70	27.41	46.36	17.64	32.00	28.72
28	Medinipur	71.70	47.80	59.75	23.90	54.26	29.15	41.71	25.11	44.50	20.87	32.69	23.63
29	Salboni	77.30	52.20	64.75	25.10	33.18	24.53	28.86	24.53	54.65	26.50	40.58	28.15

Source: Census-2001, Paschim Medinipur



Learners, Neo-literates participating the district-level meeting on International Literacy Day, 2007



A Neo-literate addressing the audience on International Literacy Day, 2008



Dignitaries attending the Residential Workshop on CEP & PRI



Rally on International Literacy Day, 2007



Rally on International Literacy Day, 2008



Participants at the Residential Workshop on CEP & PRI

The right to education is a fundamental human right. States have an obligation to pursue the aim of education for all. The Indian Constitution also gives stress on the issue as "Any section of the citizens residing in the territory of India or any part thereof having a distinct language, script or culture of its own shall have the right to conserve the same."

In this backdrop Government of India has notified on 27th August, 2009 **THE RIGHT OF CHILDREN TO FREE AND COMPULSORY EDUCATION ACT, 2009**, an Act to provide for free and compulsory education to all children of the age of six to fourteen years.

#### Salient points of Right to Education Act, 2009

- ✓ Free and compulsory education for every child of 6-14 years.
- ✓ No fee/ charges/ expenses for completing the elementary education.
- ✓ Compulsory admission, attendance and completion of education up to standard VIII.
- Child belonging to weaker section and disadvantaged groups not to be discriminated and prevented from pursuing and completing elementary education on any grounds.
- ✓ Availability of a neighbourhood school.
- Sufficient infrastructure including school building, teaching staff, library and learning equipment including play materials, games and sports equipment.
- Special training facility for children above 6 years who have not admitted in time or who have not completed elementary education even after 14 years.
- ✓ Good quality education conforming to the standards.
- ✓ Timely prescribing of curriculam and courses of study.
- ✓ Training facility for teachers.
- ✓ No capitation fee and screening procedure for admission.
- ✓ Prohibition of holding back and expulsion.
- ✓ Prohibition of physical and mental harassment to child
- ✓ Appropriate Pupil-Teacher ratio to be maintained.
- ✓ Certificate to be awarded to every child after completion of elementary education.



**Sarva Siksha Avijan** was launched in 2001(turned as **Sarva Siksha Mission**, since 2008-09) in view of similar objectives of universalisation of elementary education (UEE). Though SSA/SSM has no obligatory power as it remains embedded within an Act it works with an aim of:

- Universal Enrolment (Primary schooling for 5 + to 8 + and upper primary schooling for 9 + to 13 + age group of children)
- Universal Retention
- Universal Achievement
- Bridging up all types of gender and social gaps in schools.

After a lapse of nine years we may have a look on what SSA/SSM could do to achieve its goal in the district of Paschim Medinipur in terms of different variables counted for attaining Educational Development Index (EDI).

## Variable I: ACCESS

Table 3.3 Different types of schools in the district (Govt. or Govt. aided)

(Number)

								(Number)
SI. No	Name of Block / Municipality	Primary	Pry. with Up. Pry.	Pry. with Up. Pry. And Secondary/ H.S. I - X/XII	Up. Pry. Only V - VIII	Up. Pry. With Secondary/ H.S. V - X/XII	Total Upper Primary	Total Schools
1	Binpur - I	137	0	0	1	15	16	153
2	Binpur - II	190	0	6	2	14	22	212
3	Chandrakona - I	116	0	0	5	19	24	140
4	Chandrakona - II	110	1	2	4	9	16	126
5	Dantan - I	108	0	2	1	16	19	127
6	Dantan - II	92	0	3	0	16	19	111
7	Daspur - I	129	0	2	8	20	30	159
8	Daspur - II	162	1	1	9	25	36	198
9	Debra	206	2	3	3	30	38	244
10	Garhbeta - I	177	0	4	3	15	22	199
11	Garhbeta - II	166	0	0	4	14	18	184
12	Garhbeta -III	122	0	0	3	14	17	139
13	Ghatal	168	0	3	5	25	33	201
14	Gopiballavpur - I	131	0	1	0	11	12	143
15	Gopiballavpur - II	135	0	2	2	13	17	152
16	Jamboni	113	1	0	5	10	16	129
17	Jhargram	199	0	1	2	18	21	220
18	Keshiary	122	0	3	0	14	17	139
19	Keshpur	247	0	3	4	34	41	288
20	Kharagpur -I	98	0	0	0	10	10	108
21	Kharagpur - II	142	1	4	3	18	26	168
22	Medinipur	117	0	1	2	11	14	131
23	Mohanpur	81	0	0	0	14	14	95
24	Narayangarh	233	0	2	2	32	36	269
25	Nayagram	164	0	3	3	14	20	184
26	Pingla	145	0	0	4	25	29	174
27	Sabong	230	0	3	12	33	48	278
28	Salboni	168	3	1	3	18	25	193
29	Sankrail	151	0	1	2	11	14	165
30	Chandrakona MN	19	0	0	3	2	5	24
31	Ghatal MN	37	0	0	1	4	5	42
32	Jhargram MN	24	0	3	0	5	8	32
33	Kharagpur MN	103	3	4	1	23	31	134
34	Kharar MN	13	0	0	0	23	2	154
35	Khirpai MN	13	0	0	0	2	2	15
36	Midnapore MN	84	0	2	2	20	24	108
37	Ramjibanpur MN	18	0	0	0	20	2	20
37	TOTAL	4670	12	60	99	578	749	5419
	DISE 2000 2000 Basel	40/0	12	00	,,,	370	7-13	3713

Source DISE, 2008-2009, Paschim Medinipur

Table 3.4 Ratio of Primary to Upper Primary School (as on 31.10.09)

			-	er of Colorale	· · · · · ·		
			Numb	per of Schools		D :	
SI.	Block/MN	Drimon	Upper	New Setup	Total	Primary: Upper	Additional New
No.	DIOCK/MIN	Primary	Primary	Upper Primary	School	Primary	Up. Pry. Required
1	2	3	4	5	6	7	8
1	Binpur - I	137	16	22	175	3.61	8
2	Binpur - II	190	22	18	230	4.75	23
3	Chandrakona - I	116	24	6	146	3.87	9
4	Chandrakona - II	110	16	4	130	5.50	17
5	Dantan - I	108	19	9	136	3.86	8
6	Dantan - II	92	19	6	117	3.68	6
7	Daspur - I	129	30	3	162	3.91	10
8	Daspur - II	162	36	1	199	4.38	17
9	Debra	206	38	2	246	5.15	29
10	Garhbeta - I	177	22	13	212	5.06	24
11	Garhbeta - II	166	18	4	188	7.55	33
12	Garhbeta -III	122	17	2	141	6.42	22
13	Ghatal	168	33	2	203	4.80	21
14	Gopiballavpur - I	131	12	13	156	5.24	19
15	Gopiballavpur - II	135	17	8	160	5.40	20
16	Jamboni	113	16	10	139	4.35	12
17	Jhargram	199	21	23	243	4.52	22
18	Keshiary	122	17	2	141	6.42	22
19	Keshpur	247	41	10	298	4.84	31
20	Kharagpur -I	98	10	3	111	7.54	20
21	Kharagpur - II	142	26	3	171	4.90	18
22	Medinipur	117	14	14	145	4.18	11
23	Mohanpur	81	14	5	100	4.26	8
24	Narayangarh	233	36	17	286	4.40	25
25	Nayagram	164	20	21	205	4.00	14
26	Pingla	145	29	2	176	4.68	17
27	Sabong	230	48	7	285	4.18	22
28	Salboni	168	25	7	200	5.25	24
29	Sankrail	151	14	20	185	4.44	16
30	Chandrakona MN	19	5	0	24	3.80	1
31	Ghatal MN	37	5	0	42	7.40	7
32	Jhargram MN	24	8	0	32	3.00	0
33	Kharagpur MN	103	31	0	134	3.32	3
34	Kharar MN	13	2	0	15	6.50	2
35	Khirpai MN	13	2	1	16	4.33	1
36	Midnapore MN	84	24	0	108	3.50	4
37	Ramjibanpur MN	18	2	0	20	9.00	4
	TOTAL	4670	749	258	5677	4.64	550

Source: DISE, 2008-09, Paschim Medinipur

Table 3.4 describes the accessibility rate on the basis of presently available schools in the district. Figures in column 5 reflect the number of recently recognised Upper Primary Schools which have started or going to be started within 2009-10. To keep the optimum ratio of Upper Primary to Primary at 1:3 for this district further requirement of new Upper Primary Schools is calculated at column 8. It shows that

## Education

keeping other variables constant 29 nos. schools are required in Debra Block. But the scenario may change if number of Primary schools be increased in future in other areas to keep conformity with the condition of availability of neighbourhood schools for every child according to the Right to Education Act, 2009.

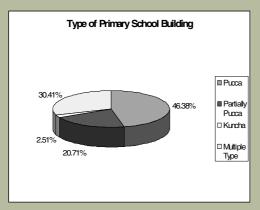
## Variable II: INFRASTRUCTURE

**Table 3.5** Types of School Buildings in the district

				Primary				Upp	oer Primar	У	
SI. No.	Name of Block/Municipality	Total School	Pucca	Partially Pucca	Kucha	Multiple Type	Total School	Pucca	Partially Pucca	Kucha	Multiple Type
1	Binpur - I	137	67	15	1	54	16	11	0	0	5
2	Binpur - II	190	68	32	14	76	22	9	0	0	13
3	Chandrakona - I	116	37	21	0	58	24	7	0	0	17
4	Chandrakona - II	110	38	21	1	50	16	6	0	0	10
5	Dantan - I	108	52	26	10	20	19	11	0	1	7
6	Dantan - II	92	17	49	3	23	19	6	1	0	12
7	Daspur - I	129	48	45	0	36	30	13	2	0	15
8	Daspur - II	162	59	70	1	32	36	22	0	0	14
9	Debra	206	76	54	6	70	38	21	0	0	17
10	Garhbeta - I	177	102	10	3	62	22	14	0	0	8
11	Garhbeta - II	166	69	21	2	74	18	8	0	0	10
12	Garhbeta -III	122	21	49	0	52	1 <i>7</i>	10	0	0	7
13	Ghatal	168	100	21	2	45	33	16	0	0	17
14	Gopiballavpur - I	131	106	3	0	22	12	9	0	0	3
15	Gopiballavpur - II	135	114	5	2	14	17	7	0	0	10
16	Jamboni	113	89	3	4	17	16	7	0	0	9
17	Jhargram	199	149	8	5	37	21	10	0	0	11
18	Keshiary	122	51	28	3	40	1 <i>7</i>	10	0	0	7
19	Keshpur	247	87	66	1	93	41	1 <i>7</i>	0	0	24
20	Kharagpur -I	98	58	6	0	34	10	2	0	0	8
21	Kharagpur - II	142	34	38	11	59	26	11	0	0	15
22	Medinipur	117	68	12	1	36	14	12	0	0	2
23	Mohanpur	81	39	10	1	31	14	5	0	0	9
24	Narayangarh	233	50	82	16	85	36	15	1	0	20
25	Nayagram	164	74	28	6	56	20	11	0	0	9
26	Pingla	145	22	64	16	43	29	11	2	0	16
27	Sabong	230	44	119	2	65	48	18	2	0	28
28	Salboni	168	82	11	1	74	25	16	0	0	9
29	Sankrail	151	113	12	0	26	14	8	0	0	6
30	Chandrakona MN	19	13	3	0	3	5	4	0	0	1
31	Ghatal MN	37	27	7	0	3	5	3	0	0	2
32	Jhargram MN	24	22	0	0	2	8	8	0	0	0
33	Kharagpur MN	103	84	13	0	6	31	24	0	0	7
34	Kharar MN	13	9	1	0	3	2	1	0	0	1
35	Khirpai MN	13	7	0	0	6	2	1	0	0	1
36	Midnapore MN	84	64	12	4	4	24	21	0	0	3
37	Ramjibanpur MN	18	6	2	1	9	2	1	0	0	1
	TOTAL	4670	2166	967	117	1420	749	386	8	1	354

Source:DISE, 2008-2009, Paschim Medinipur

As good infrastructure is a factor for creating good environment of learning in the classroom, it attracts each year a large amount of SSM fund which are utilized with a greater care. Efforts are being taken to abolish all kutcha (mud built) classrooms in phases.



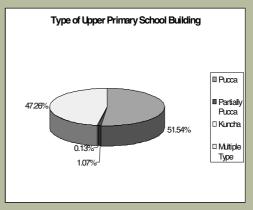


Fig 3.1

Fig. 3.2

Upper Primary school buildings are more or less in good condition though number of classrooms are inadequate in respect to number of students. Table 3.6 & 3.7 will focus on other accessibilities which play a vital role in EDI ranking. In respect of SSR and SCR position of the district is more or less good.

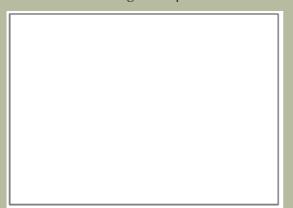


Fig.3.3. SCR for Primary Schools

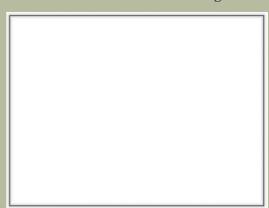


Fig.3.4. SCR for Upper Primary Schools



**Primary School building at Nayagram** 



High school building at Nayagram.

**Table 3.6** SSR & SCR of Primary and Upper Primary Schools

Section	No. of schools	Total enrolment	School- Student ratio	Section	No. of class-rooms	Total enrolment	Student- Classroom ratio
Primary	4670	395399	84,67	Primary	12797	395399	30,90
Upper Primary	749	388364	518,51	Upper Primary	8003	388364	48.53

Source:DISE, 2008-2009, Paschim Medinipur

Figures below show the availability of classrooms in Primary and Upper Primary schools. If separate classrooms are not provided for separate standards or units then quality education should not be expected. The position is to be improved for our district.

Fig.3.5 Fig.3.6

Classroom availability in rimary Schools Classroom availability in Upper Primary Schools



**Primary school at Salboni** 



High school at Salboni

Table 3.7 Percentage of schools having Sanitation, Drinking Water and other Infrastructural facilities in Paschim Medinipur District

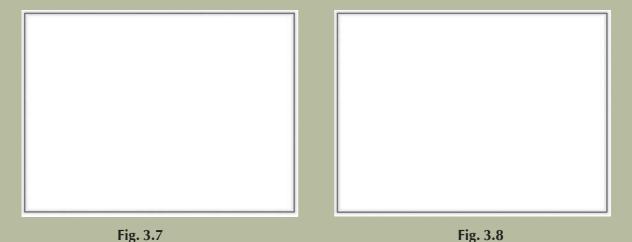
Section	Common Toilet	Girls Toilet	Drinking Water	Blackboard	Library	Electricity	Ramp	Boundary wall	Play ground	Kitchen Shed	Computer
Primary	87.79	13.10	92.08	100	43.60	8.46	52.70	20.73	30.99	68.89	3.10
Upper Primary	62.75	93.06	96.80	100	88.38	75.97	60.48	52.74	78.37	34.31	20.83

Source: DISE, 2008-09, Paschim Medinipur

From the point of hygiene, security, mental growth of the student and providing other comforts there are many a thing left to do to create the good environment for quality education.

#### Variable III: TEACHERS' SUPPORT

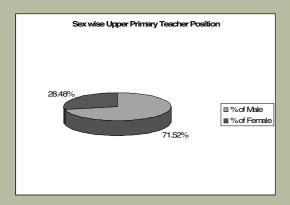
Not only the environment, quality education depends mainly on quality teaching. Adequate and well trained teachers can percolate knowledge to students properly, can take care of their mental ability, nurture good habits in them. Teachers' support is very much essential to nourish their inherent talents as well to grow them up as a good human being. Let us have a look on the situation presently prevails in the district as per DISE 2008-09.



PTR for Primary Schools (Avg.30.25%)

PTR for Upper Primary Schools (Avg.56.49%)

As the Right to Education Act, 2009 calls for ensuring PTR at 40 in case of Primary section and that at 35 in case of Upper Primary section there remains a huge gap at the moment which is to be covered up. For this reason Para Teachers have come in picture to meet up the gap temporarily.



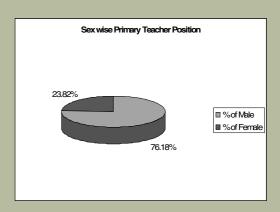


Fig. 3.10

Weightage is given also on availability of female teachers in calculating EDI. It is quite natural to get more soft, sympathetic and motherly behaviour from female teachers which may help the students to express views freely without any fear, hesitation, trauma and anxiety. Hence engagement of more female teachers may do better for creating a good learning environment.

#### **Variable IV: OUTCOMES**

To reach the goal of universal elementary education SSM has taken initiatives for creating a student friendly teaching-learning environment in all government or government aided institutions up to standard VIII by way of giving support through increasing accessibility, infrastructure building and preparing human resources. No doubt the students are achieving better education than before.

**Table 3.8 Yearwise Enrolment Overview** 

	Enrolment	DISE - 2005	DISE - 2006	DISE - 2007	DISE - 2008
	Total Enrolment	804104	800263	797887	783763
	Pry. Enrolment	429882	425001	411838	394025
	Up. Pry. Enrolment	374222	375262	386049	389738
Total	Boys	414936	411377	408571	400232
Enrolment	% of Boys	51.60	51.41	51.21	51.07
	Girls	389168	388886	389316	383531
	% of Girls	48.40	48.59	48.79	48.93
	General	460292	447895	440061	427075
	% of General	57.24	55.97	55.15	54.49
General	Boys	233692	227016	221022	214665
General	% of Boys	29.06	28.37	27.70	27.39
	Girls	226600	220879	219039	212410
	% of Girls	28.18	27.60	27.45	27.10
	SC	1 <i>7</i> 3158	174268	172817	174777
	% of SC	21.53	21.78	21.66	22.30
	Boys	90281	90579	89829	90154
SC	% of Boys	11.23	11.32	11.26	11.50
	Girls	82877	83689	82988	84623
	% of Girls	10.31	10.46	10.40	10.80

E	nrolment	DISE - 2005	DISE - 2006	DISE - 2007	DISE - 2008
	ST	113471	115455	114514	112044
	% of ST	14.11	14.43	14.35	14.30
[	Boys	61034	61298	60822	59074
ST	% of Boys	7.59	7.66	7.62	7.54
	Girls	52437	54157	53692	52970
	% of Girls	6.52	6.77	6.73	6.76
	OBC	57183	62645	70495	69867
	% of OBC	7.11	7.83	8.84	8.91
	Boys	29929	32484	36898	36339
OBC	% of Boys	3.72	4.06	4.62	4.64
	Girls	27254	30161	33597	33528
	% of Girls	3.39	3.77	4.21	4.28
	MINORITY		78412	71297	79945
	% of MINORITY		9.80	8.94	10.20
	Boys	Data Not	37482	33777	38513
MINORITY	% of Boys	Available	4.68	4.23	4.91
	Girls		40930	37520	41432
	% of Girls		5.11	4.70	5.29
	Total Teacher	16596	18405	18844	19944
	Pry. Teacher	11428	12597	12823	13069
	Upper Pry. Teacher	5168	5808	6021	6875
Total Teacher	Male	13357	14473	14536	14889
	% of Male	80.48	78.64	77.14	74.65
	Female	3239	3932	4308	5077
	% of Female	19.52	21.36	22.86	25.46
	Over All PTR	48.45	43.48	42.34	39.25
PTR	Primary PTR	37.62	33.74	32.12	30.15
	Upper Primary PTR	72.41	64.61	64.12	56.69

Source: DISE - 2005, 2006, 2007, 2008, Paschim Medinipur

Does the efforts so made give in any positive result in case of enrolment of children from all community? To have the answer we may analyze the DISE 2008-09 data from Table 3.8 and Fig.3.11 to 3.20.

Graphical presentation on changed scenario in respect of total enrolment, enrolment of SC, ST,OBC and minority children, teacher's strength and pupil-teacher ratio in four consecutive years.

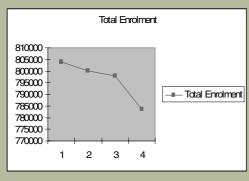


Fig.3.11

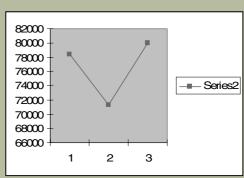


Fig.3.12

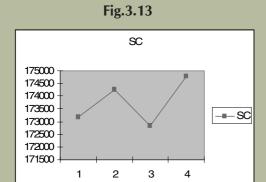


Fig.3.14

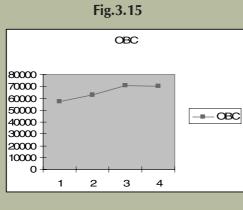


Fig 3.19

Fig.3.16

Fig 3.18

Fig 3.20

2 3 4 Fig 3.17

If we consider the total SC and ST population percentage of the district it corroborates with the enrolment ratio of SC and ST children in the normal schooling system. Fig.3.19 and 3.20 also supports the issue. The upward trend of the curves in Fig. 3.16, 3.17 & 3.18 reveals that recruitment of teachers has lowered down the PTR which is a positive sign of better environment of education. But it is a matter of anxiety when we look at the fig.3.11 which reflects the decreasing tendency of gross enrolment. The

causes behind may be the decreasing growth rate of population which has no doubt a positive impact on the society. Another reason may be establishment of non formal education centres lijke **Sishu Siksha Kendra (SSK)** and **Madhyamik Siksha Kendra (MSK)** in vicinity of the child's residence where also elementary education be provided following the same syllabus of the State Government. These SSKs and MSKs are very much attracting

Tabl	e 3.9 Tota		f Learnei 13.11.0	rs in SSK a 9)	nd MSK
Item	No. of		Lea	arners	
	Institution	SC	ST	Others	Total
SSK	2459	91754	96037	156303	344094
MSK	229	10935	8308	22798	42041

the rural child population in school going stage. Study suggests that quality of learning is better in SSKs and MSKs. Generally the enrolment figures of SSKs & MSKs were not being captured in DISE conducted by SSM. If that be taken into account the picture may slightly change.

**Table 3.10 Gender Parity Index (Primary & Upper Primary)** 

SI	Name of Block/			Primary				Upp	er Prima	ry	
No	Municipality	Boys	Girls	Total	GPI	Rank	Boys	Girls	Total	GPI	Rank
1	Binpur - I	6071	5910	11981	0.97	14	5273	4635	9908	0.88	26
2	Binpur - II	6328	6219	12547	0.98	11	5221	4696	9917	0.90	23
3	Chandrakona - I	4854	4557	9411	0.94	32	4911	5059	9970	1.03	7
4	Chandrakona - II	4604	4617	9221	1.00	6	4304	4218	8522	0.98	12
5	Dantan - I	4702	4517	9219	0.96	26	5849	5093	10942	0.87	29
6	Dantan - II	5151	4972	10123	0.97	19	5240	4824	10064	0.92	19
7	Daspur - I	6704	6644	13348	0.99	7	7519	7452	14971	0.99	9
8	Daspur - II	7641	7424	15065	0.97	16	8338	9837	18175	1.18	3
9	Debra	8171	7791	15962	0.95	28	8629	8527	17156	0.99	10
10	Garhbeta - 1 <b>7949</b>	7643	15592	0.96	24	7648	7457	15105	0.98	14	
11	Garhbeta - II	5644	5551	11195	0.98	10	4694	4445	9139	0.95	15
12	Garhbeta -III	6078	5968	12046	0.98	12	5125	5006	10131	0.98	13
13	Ghatal	7857	7544	15401	0.96	27	6275	7147	13422	1.14	4
14	Gopiballavpur - I	3708	3472	7180	0.94	33	3617	3077	6694	0.85	34
15	Gopiballavpur - II	3936	3737	7673	0.95	30	4216	3697	7913	0.88	28
16	Jamboni	4387	3992	8379	0.91	37	3590	3109	6699	0.87	30
17	Jhargram	6340	5848	12188	0.92	36	5672	5176	10848	0.91	21

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SI	Name of Block/			Primary				Upp	er Prima	ry	
No	Municipality	Boys	Girls	Total	GPI	Rank	Boys	Girls	Total	GPI	Rank
18	Keshiary	5138	4938	10076	0.96	25	5888	4926	10814	0.84	35
19	Keshpur	12556	11919	24475	0.95	31	11347	12183	23530	1.07	5
20	Kharagpur -I	5072	5132	10204	1.01	5	3690	3284	6974	0.89	24
21	Kharagpur - II	5562	5394	10956	0.97	17	6129	5622	11751	0.92	20
22	Medinipur	7120	6783	13903	0.95	29	5247	4070	9317	0.78	37
23	Mohanpur	3848	3811	7659	0.99	9	4262	3333	7595	0.78	36
24	Narayangarh	9032	8686	17718	0.96	23	11219	9580	20799	0.85	33
25	Nayagram	5369	4995	10364	0.93	34	4772	4085	8857	0.86	32
26	Pingla	7140	6988	14128	0.98	13	8549	7502	16051	0.88	27
27	Sabong	12544	12146	24690	0.97	18	10964	10186	21150	0.93	16
28	Salboni	6100	5872	11972	0.96	22	7287	6747	14034	0.93	17
29	Sankrail	4049	4012	8061	0.99	8	4408	3797	8205	0.86	31
30	Chandrakona MN	830	769	1599	0.93	35	1092	1008	2100	0.92	18
31	Ghatal MN	1526	1471	2997	0.96	20	1687	1491	3178	0.88	25
32	Jhargram MN	1717	1904	3621	1.11	2	2188	2303	4491	1.05	6
33	Kharagpur MN	6626	7026	13652	1.06	4	7733	7638	15371	0.99	11
34	Kharar MN363	385	748	1.06	3	426	533	959	1.25	1	
35	Khirpai MN	641	624	1265	0.97	15	464	569	1033	1.23	2
36	Midnapore MN	4472	4981	9453	1.11	1	5465	5615	11080	1.03	8
37	Ramjibanpur MN	676	651	1327	0.96	21	788	711	1499	0.90	22
	TOTAL	200506	194893	395399	0.97		199726	188638	388364	0.94	

Source: DISE 2008-2009, Paschim Medinipur

Another point of consideration is the Gender Parity Index(GPI) in enrolment. In our district it shows consistent increase in the share of girls enrolment to total enrolment in both primary and upper primary section. In fact through community mobilization, gender sensitization of teachers, other community stakeholders and active involvement of Mother Teacher Association(MTA) members, girls are getting more access to education. According to DISE 2008-09 GPI has got a satisfactory positioning our district (Table 3.10).

**Table 3.11 Examination Result (Primary & Upper Primary)** 

	Primary					Upper Primary					
SI No	Name of Block/Municipality	Number Appeared	Number Passed	Pass with More Than 60% Marks	% of Passed	% Passed With More Than 60% Marks	Number Appeared	Number Passed	Pass with More Than 60% Marks	% of Passed	% Passed With More Than 60% Marks
1	Binpur - I	2550	2402	921	94.20	36.12	2290	1659	231	72.45	10.09

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				Primary					Upper Pri	mary	
SI No	Name of Block/Municipality	Number Appeared	Number Passed	Pass with More Than 60% Marks	% of Passed	% Passed With More Than 60% Marks	Number Appeared	Number Passed	Pass with More Than 60% Marks	% of Passed	% Passed With More Than 60% Marks
2	Binpur - II	2411	2267	1211	94.03	50.23	1506	118 <i>7</i>	223	78.82	14.81
3	Chandrakona - I	2445	2385	1060	97.55	43.35	1946	1604	352	82.43	18.09
4	Chandrakona - II	2009	1974	997	98.26	49.63	1910	1633	362	85.50	18.95
5	Dantan - I	2478	2468	1325	99.60	53.47	2325	1947	337	83.74	14.49
6	Dantan - II	2898	2720	1729	93.86	59.66	2944	2560	687	86.96	23.34
7	Daspur - I	3336	3254	2021	97.54	60.58	2992	2651	890	88.60	29.75
8	Daspur - II	4281	4104	2066	95.87	48.26	3309	2948	898	89.09	27.14
9	Debra	4064	3953	2064	97.27	50.79	4472	3815	1044	85.31	23.35
10	Garhbeta-I	3871	3807	2253	98.35	58.20	3220	2760	1071	85.71	33.26
11	Garhbeta-II	2705	2630	1350	97.23	49.91	2133	1750	297	82.04	13.92
12	Garhbeta-III	3133	3120	1706	99.59	54.45	1706	1301	278	76.26	16.30
13	Ghatal	4302	4264	2530	99.12	58.81	3459	3036	730	87.77	21.10
14	Gopiballavpur-I	1660	1627	746	98.01	44.94	1302	1113	237	85.48	18.20
15	Gopiballavpur-II	1709	1679	875	98.24	51.20	2080	1662	468	79.90	22.50
16	Jamboni	1863	1792	806	96.19	43.26	1681	1351	300	80.37	17.85
17	Jhargram	2928	2815	1510	96.14	51.57	2294	1703	397	74.24	17.31
18	Keshiary	2544	2484	1292	97.64	50.79	1841	1502	315	81.59	17.11
19	Keshpur	6109	5988	3304	98.02	54.08	5144	4478	1288	87.05	25.04
20	Kharagpur-I	2740	2664	1559	97.23	56.90	2861	2283	299	79.80	10.45
21	Kharagpur-II	2670	2582	1495	96.70	55.99	2279	1976	470	86.70	20.62
22	Medinipur	3940	3902	2140	99.04	54.31	2470	2079	195	84.17	7.89
23	Mohanpur	2296	2236	1562	97.39	68.03	1419	1306	335	92.04	23.61
24	Narayangarh	4395	4334	2589	98.61	58.91	5248	4581	1390	87.29	26.49
25	Nayagram	2085	2027	937	97.22	44.94	1728	1280	415	74.07	24.02
26	Pingla	3478	3445	2108	99.05	60.61	4103	3539	1038	86.25	25.30
27	Sabong	5283	5152	3073	97.52	58.17	5738	5268	1609	91.81	28.04
28	Salboni	1803	1751	871	97.12	48.31	3156	2650	674	83.97	21.36
29	Sankrail	3033	2937	1545	96.83	50.94	4689	3470	599	74.00	12.77
30	Chandrakona MN	490	480	291	97.96	59.39	340	256	89	75.29	26.18
31	Ghatal MN	798	789	486	98.87	60.90	441	387	126	87.76	28.57
32	Jhargram MN	820	808	563	98.54	68.66	911	839	396	92.10	43.47
33	Kharagpur MN	2983	2924	1829	98.02	61.31	3203	2659	824	83.02	25.73
34	Kharar MN	162	162	125	100.00	77.16	170	136	81	80.00	47.65
35	Khirpai MN	279	279	172	100.00	61.65	222	208	40	93.69	18.02
36	Midnapore MN	2146	2119	1311	98.74	61.09	2364	2103	890	88.96	37.65
37	Ramjibanpur MN	326	322	165	98.77	50.61	300	267	71	89.00	23.67
	TOTAL	97023	94646	52587	97.55	54.20	90196	75947	19946	84.20	22.11

Source: DISE 2008-2009, Paschim Medinipur

Table 3.11 above depicts Block-wise overall outcome of the education provided to students through the result of examination. Here it clarifies that result of Upper Primary section is comparatively poorer in case of pass percentage as a whole. It gives rise to question of quality of education extended to the students if we look at the figures at last column. Students are still not attaining desired level of education and thus only 22.11% of pupil score more than 60% marks.

Not only admission to schools but also retention in the school is another concern of UEE. In this reference we may go through the findings of COHORT study in upper primary schools conducted by District Sarva Siksha Mission office in 2008. The study was done on students whose entry year to class V was 2004-05. Their success or failure over the consecutive four years i.e. up to 2007-08 was

## Outcomes of COHORT study, 2007-08

Children sustained for 4 years: 64.45%

Children promoted to Class VIII at the beginning of 4th year : 44.30%

Children completing upper primary in 4 years: 37.63%

	Rep	eat	er in 4 years	Dropout in 4 years
I	In Class-V	:	18.17%	6.29%
I	In Class-VI	:	14.94%	6.84%
I	In Class-VII	:	12.35%	6.07%
I	In Class-VIII	:	9.21%	2.78%

taken into account. The summary report in a nutshell is highlighted in the attached box.

# Office buildings of cluster and circle level key persons who are responsible for monitoring the universal elementary education



**Cluster Resource Centre** 



**Circle Level Resource Centre** 

### **MID-DAY MEAL Programme in Pschim Medinipur**

With a view to retain children in schools Mid-Day Meal scheme was launched and it has become a very successful programme of the government. It must be agreed that enrolment of students as well as regular attendance in schools has remarkably increased after starting of it. Physical performance of Midday-meal scheme as on 31.10.09 is depicted below.

A. Mid-Day Meal covered Institutions (I-VIII) : 8872 Schools

## Human Development Report Paschim Medinipur

B. No. of Students covered : 905425 Nos.
C. Fund sanctioned for Kitchen cum Store : 6904 Schools
D. Fund sanctioned for Kitchen Devices : 2671 Schools

E. Fund utilized for Cooking, Kitchen Shed,

MME, Transportation cost : Rs. 3002.72 lakh Food grain (Rice) utilized : 65424.96 Qtl.

Table 3.12 Mid-Day Meal for Primary Stage (Classes I to V)

SI.	Item	No. of Institution & Students	Allotment released
No.		covered under MDM	by the School
		schemes	Education Deptt.
1.	Total No. of Institution	8073	
2.	Total No. of Institution covered under MDM	<i>7</i> 945	7927
3.	Total No. of students	683082	
4.	Total No. of students covered under MDM	662697	567437

Source: Mid-Day-Meal Section, Paschim Medinipur

F.

Table 3.13 Mid-Day Meal for Upper Primary Stage (Classes VI to VIII)

SI.	ltem	No. of Institution & Students	Allotment released
No.		covered under MDM	by the School
		schemes	Education Deptt.
1.	Total No. of Institution	976	
2.	Total No. of Institution covered under MDM	927	976
3.	Total No. of students in Upper Primary stage	302329	
4.	Total No. of students covered under MDM	242728	272788
	in Upper Primary stage		

Source: Mid-Day-Meal Section, Paschim Medinipur

## Students are enjoying Mid-Day Meal



School at Ghanarampur, Nayagram Block



**School in Chandrakona-II Block** 

### Further steps to be taken for widening its spread and fulfilling its aim in more effective way:-

- Self Help Group (SHG) members who are cooking the meal for the children should get the full responsibility of supervision apart from cooking in terms of fund and food grains management and also supply of vegetables, eggs etc. which they can produce themselves using their own savings or cash credit. In that case teachers will be able to devote full time in teaching lessons without being engaged in mid-day meal management.
- Where there is a problem of adequate space for constructing cooking sheds and/or sufficient provision of potable water to be used in cooking, construction of standardized cluster cooking sheds may be thought of at a central place wherefrom cooked food may be supplied to neighbouring schools.
- Installation of fire extinguishers at each primary and upper primary schools where mid-day meal are cooked.
- Other institutions which are not directly controlled by government but even a single penny goes to it in any form (e.g. Alternative Innovative Education centres, schools under National Child Labour Programme or schools run by NGOs otherwise deem fit) should bring under the purview of this scheme in view of not to deprive any child from a good and healthy food for at least once a day.
- Cost per meal to be increased for ensuring supply of good quality and healthy food.

#### **Girls Education**

Elementary education for all has been the target of the government since long. But it can not be

demanded with a full level of confidence that all girl children could be brought to schools for attaining basic and elementary education. All of us believe that to educate a man is to educate a person and to educate a woman is to educate a family. But the concept does not bear any value to those parents of girl children who are compelled to struggle against poverty and social inequity. In these families girls are to be involved rather in domestic works and take care of their younger brothers or sisters. They get rare chances of normal schooling. Not only that factors like communication problem, absence or inadequacy of separate girls toilet often demotivate girls to get admitted or retain in school. These are the challenges to fight with



in propagation of girl's education. Efforts are being taken to construct separate girls toilet units in both coeducation schools and girl's schools as well. In educationally backward blocks like Nayagram and Gopiballavpur-I special care are being taken to ensure elementary education for girls through NPEGEL and KGBV hostel schemes.

#### NPEGEL(National Programme of Education for Girls at Elementary Level)

Table 3.14 Location of schools under NPEGEL scheme

SI. No.	Name of the Block	Name of the circle	No. of model cluster schools	No. of tagged school
1	Nayagram	Nayagram	14	93
2	Nayagram-I	13	89	
3		Gopi-East	10	52
4	Gopiballavpur	Gopi-west	12	79

Source: Sarva Siksha Mission, Paschim Medinipur



#### **NPEGEL Activities:**

- ✓ Maintenance of Schools
- Part-time Instructor to "Model Cluster Schools".
- ✓ Life Skill Training.
- ✓ Vocational Training.
- ✓ Transportation charges etc. (Model Cluster Schools).
- ✓ Bi-cycles for cluster coordinators
- Award to Best Schools within the catchment area of "Model Cluster Schools"
- ✓ Teachers Training for Model Cluster Schools
- ✓ Learning through open schools (RMV).
- Community Mobilisation & Management Training to Model Cluster Schools.
- Student evaluation, Remedial teaching, Bridge Courses & Alternative Schools.

This scheme is designed for taking special care on girl students of EBBs most of them being come from underprivileged community of the society. It is tried to build up awareness among the community, supplementary coaching to weak students, providing vocational training for growing up abilities in income generation and to create child friendly environment in the schools. To closely monitor each activity there are 43 cluster coordinators out of 50 attached to each cluster school. Through NPEGEL girls are nourished to achieve elementary education properly with an all round physical and mental growth. This in turn hopefully will minimise the illiteracy rate of these educationally backward blocks.

## KGBV (Kasturba Gandhi Balika Vidyalaya





**Table 3.15 Enrolment status in KGBV hostels** 

# A. Nayabasan J.K. Balika Vidyalaya, Gopiballavpur-I

Social community	Class-V	Class-VI	Class-VII	Class-VIII	Total
SC	0	2	9	10	21
ST	4	8	9	5	26
OBC	0	1	0	0	1
MIO	1	1	0	0	2
BPL	0	0	0	0	0
TOTAL	5	12	18	15	50

# B.Baligeria Balika Vidyapith, Nayagram

Social community	Class-V	Class-VI	Class-VII	Class-VIII	Total
SC	16	16	0	2	34
ST	5	10	5	3	23
OBC	0	3	6	5	14
MIO	1	4	2	1	8
BPL	0	1	0	0	1
TOTAL	22	34	13	11	80

Source: Sarva Siksha Mission, Paschim Medinipur

These are the hostels for accommodating students from weaker sections of the society residing in economically backward blocks. All costs relating to their livelihood are borne by the government so that they are not to be deprived of availing elementary education for want of money or other social issues.





On completion of elementary education they do not want to leave the hostel or the school. And herein lies the success of the scheme. For giving them further opportunity of education another hostel building of 100 capacity will be constructed in the same school campus wherein the purpose of their accommodation will be fulfilled.

## Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

In the context of Universalisation of Secondary Education (USE), large-scale inputs in terms of additional schools, additional classrooms, teachers and other facilities need to be provided to meet the challenge of numbers, credibility and quality. It inter-alia requires assessment / provision of educational needs, physical infrastructure, human resource, academic inputs and effective monitoring of implementation of the programmes. The scheme will initially cover up to class X . Subsequently, the higher secondary stage will also be taken up preferably within two years of the implementation. The strategy for universalizing access to secondary education and improving its quality are as under.

The district Paschim Medinipur is having 748 Secondary Schools of which 193 Junior High School and Jr. High Madrasha, 339 High Schools and High Madrasha, 3 Sr. Madrasha (Co-education) and 211 Higher Secondary Schools and 2 Government Institution namely Rani Binod Manjari High School for Girls at Jhargram Municipality and Belpahari Residential Girls High School at Binpur-II Block at present apart from a good many private schools. The Secondary Education in this district is serving the needs of beneficiary roles of 4672 primary schools, 2454 SSKs, and 231 MSKs. The total number of Secondary Schools coming within the purview of RMSA in 2007 was 644. As per survey, some schools are overburdened with students whereas some are enrolling poor number students. The result of Madhyamik Pariksha is above the average.

Some of the schools of this district are deserving additional classroom, additional teachers, library and laboratory grant, toilet and sanitation facilities for catering service to the students up to their requirement. Some secondary schools deserve up-gradation to the Higher Secondary level in the need-based area.

The significant feature regarding the general enrolment is that the enrolment of girls' student is high in comparison to that of boys, as a good number of boys student leave their schools for earning their livelihood elsewhere outside West Bengal. As a result the boys do not continue their education up to Higher Secondary level.

Table 3.16 Secondary Education- present scenario as on 01-04-2009

Details	Paschim Medinipur
Number of schools (Govt.)	02
Number of Higher Secondary Schools	211
Number of High School & High Madrasha	339
Jr. High School and Jr. High Madrasha	193
Sr. Madrasha (Co-education)	03
Number of teachers in Secondary Level	5286
Population (14+ to 16 years age group)	217782
Total Enrolment (Govt. & Govt. Aided Schools)	121368
GER (overall) %	55.73
School-Student ratio	188.46
School-Teacher ratio	8.21
Pupil-Teacher ratio	22.96
GPI	0.89

Source: Sarva Siksha Mission, Paschim Medinipur

Table 3.17 Educational Units as on 01-04-2009

Details	Paschim Medinipur
Number of Circles	69
Government aided Primary School	4672
Special Schools for Child Labour	37
Schools with Upper Primary Section	746
PTTI	Govt03, / Pvt 02
College	26
Teachers training Institute	03
Medical College (Allopathic)	01
Medical College (Homeo)	01
Indian Institute of Technology (IIT)-Kharagpu	01
Industrial Training Institute (ITI)	02
Polytechnics	01
University	01

Source: Sarva Siksha Mission and District Statistical Handbook, Paschim Medinipur

There are some backward blocks out of 29 blocks and the number of SC/ST students is considerably notable and provision for SC/ST Hostel especially for girl student with adequate financial support from the Government is considered essential to ensure continuance of their studies after elementary primary education. GER in respect of Secondary Education is 55.73. It is pertinent to note that GER gradually increased during last two years, at present it is approx 60% something or like that.

#### **CHALLENGES, THRUST AREAS & STRATEGIES**

In the context of universalisation of Secondary Education large scale inputs in terms of schools, classrooms, teachers, TLM and other facilities and incentives to be provided to meet the challenge of numbers, credibility and quality. There is a wide disparity in schooling facilities like lack of classroom, toilet facilities, demographic difficulties, socio-economic-cultural dissimilarities in different blocks of the district.

Normal Growth & Gross Enrolment Ration (GER):

We have noticed that GER up to class VIII in the District of Paschim Medinipur is above 80%, whereas the said rate in respect of class IX & X is at 55% (average). Our aim is to increase the GER up to 75% during the 11th five year plan period, and it is a challenge before us to reach the target.

Population growth is increasing by 1.75 in the age group of 14 - 16 per year. Naturally we shall have to increase the respective GER by more than 3.50% per year, it is undoubtedly Herculean task before us.

## To meet the above challenges:

Development of Infrastructural facilities and learning resources is to be carried out in following ways

- Expansion of existing Secondary and Higher Secondary Schools.
- Upgradation of Upper Primary Schools to Secondary Schools and Secondary Schools to Higher Secondary Schools.
- > Opening of new Secondary/Higher Secondary Schools in unserved area through GIS mapping.
- New and existing schools should be disabled friendly.
- Opening of Girls Hostel in hard to reach area and in blocks where girls enrolment is relatively low for SC, ST, OBC and Minority student.
- Construction of Girls Toilet specially in co-education Schools
- Providing required infrastructure within the class like black board, furniture, library and laboratory facilities
- Appointment of additional teacher with sufficient training
- > Opening of alternative schools like RMV for Backward Student of class VIII.
- Cash incentives, Uniforms, Books etc. to SC, ST, OBC and Minority student.
- Incorporation of inclusive education to children with disabilities and necessary support to them.
- > Special Training community members including PRI members, teachers, parents and other stake holders to ensure the betterment of RMSA.

#### Education

In order to meet the challenge of Universalisation of Secondary Education, there is a need for a paradigm shift in the conceptual design of secondary education. The guiding principles in this regard are; Universal Access, Equality and Social Justice, Relevance and Development and Curricular and Structural Aspects. Universalisation of Secondary Education gives opportunity, to move towards equity. The concept of 'common school' will be encouraged. If these values are to be established in the system, all types of schools, including unaided private schools will also contribute towards Universalisation of Secondary Education (USE) by ensuring adequate enrolments for the children from under privileged society and the children Below Poverty Line (BPL) families.





Nayagram Thana Balika Vidyapith

Jugisol Arjun Smriti Vidyapith

#### Strategies for ensured education for all upto elementary level and thereafter

- All excluded children to enroll, retain them in schools and to provide all logistic supports for their effective learning everything to be done with the involvement of the children themselves, their families and communities.
- To develop child friendly system with the help of structured content and good quality materials and resources, healthy, hygienic, safe and gender-sensitive learning environment and involving children, parents, teachers and communities in school management, planning and implementation.
- Initiation of convergence of services for safety and physical & psycho-social health of students by engaging school counselors, providing safe and clean drinking water, adequate sanitation facilities, teaching aids, well trained teachers, constructing standardized school kitchen sheds, streamlined supply of raw materials and quality meals.
- Setting up of new schools preferably upper primary schools (current target is 553) to cater class IV passed students of neighbouring three primary schools.
- Establishing central model schools initially in two educationally backward blocks and if permissible in each block of the district.

- Constructing at least two Girls Hostel for scheduled tribes with 100 capacity near KGBV hostels to accommodate ST girls who have completed elementary education.
- Opening of new Government Secondary School.

#### 3.4 Education Indices for the Blocks of PASCHIM MEDINIPUR District

The last section has provided a detailed scenario of the status of education in the district as a whole and also across the blocks of the district. Given the information we shall try in this section to construct education indices across the blocks of the district following the methodology mentioned below.

Methodology: As has been observed in the last section, we have two very reliable sources for data on education across the blocks of any district in India - the Census data mainly for literacy and the DISE data mainly for enrolment and infrastructure. However, the DISE data is of recent origin and is concerned with secondary education only. We have the latest DISE data for 2008-09 on enrolment and infrastructure, though the latest Census data is for 2001 only. Absolute enrolment figures given in the DISE data are of no use unless we have the number of potential children for primary, upper primary and secondary education in different blocks in the relevant year. On the other hand, the Census data provide information on general literacy in the age group 6 years and above, and we have no reliable data on adult literacy rate. Thus, at the first instance, the UNDP methodology of using the enrolment rate and the adult literacy rate for the construction of the education index seems not possible. But to make full use of the DISE data and the Census data and to use the UNDP methodology we have used the following methodology.

By using Census data of 1981, 1991 and 2001 for the blocks on rural population, literacy rates and age-wise distribution of the rural population we have calculated projected population in the age-group 5 to 14 years and in the age group 15 years and above, and projected literates for 2009. Enrolment ratio is then calculated as the ratio between the enrolment figures obtained from DISE and the projected population in the age-group 5 to 14 years. From the projected population in the age-group 5 to 14 years the number of children never attending school is subtracted and the subtracted value is subtracted from the projected literates for 2009 to arrive at an estimate of adult literates. The adult literacy rate is calculated as the ratio between this and projected population in the age-group 15 years and above.

These two rates are combined for arriving at the education index by using the UNDP methodology. Before combining, they are normalized to the index values by using normative goalposts at 0 (0 %) and 1 (100 %), and not by using observed goalposts at observed minimum and observed maximum, to reflect the amount of actual achievement and the amount yet to be achieved. Thus, an enrolment index of 0.810 for a block implies that the block has achieved to the tune of 81% in enrolling their potential children and an amount of 19% has remained to be achieved. As is found in the UNDP methodology 1/3 weight is given to enrolment rate and 2/3 weight to adult literacy rate.

Table 3.18 Indicators in the development in Education for the blocks of Paschim Medinipur District

Sub-division	Block	Projected Population (2009)	DISE enrolment (2009)	Enrolment Ratio (2009)	Projected Literacy rate (2009)	Projected Adult Literacy rate
			(====,	(====,	(====)	(2009)
	Chandrakona-I	133022	23491	80.75	75.61	70.66
	Chandrakona-II	120344	21544	81.86	68.91	61.53
Ghatal	Daspur-l	198008	32421	80.43	78.87	75.32
	Daspur-II	216155	35775	81.30	84.68	82.84
	Ghatal	211865	32210	78.32	78.44	75.25
	Binpur-I	156749	27373	79.85	67.33	59.76
	Binpur-II	164442	30592	85.07	67.57	59.20
	Gopiballavpur-l	106830	18352	79.93	62.51	53.47
	Gopiballavpur-II	105109	18202	79.19	66.45	58.70
Jhargram	Jamboni	114585	18907	75.45	68.88	62.56
	Jhargram	172726	31158	82.49	69.71	62.50
	Nayagram	139614	28129	88.31	60.84	49.19
	Sankrail	115616	22612	89.43	69.47	61.01
	Dantan-I	170524	30409	81.54	69.38	62.21
	Dantan-II	151356	29201	84.56	76.65	71.19
	Debra	273752	45183	75.47	75.44	71.32
	Keshiary	148766	31851	96.24	71.22	62.05
	Kharagpur-I	172493	27899	73.96	72.05	67.04
Kharagpur	Kharagpur-II	182298	31995	80.25	70.63	64.09
	Mohanpur	108507	18962	77.89	78.70	75.18
	Narayangarh	291206	55697	87.46	72.69	65.64
	Pingla	192705	36183	85.86	84.35	81.47
	Sabong	268878	55938	95.13	82.88	77.96
	Garhbeta-I	225751	45044	91.24	69.32	60.51
	Garhbeta-II	147687	25829	79.97	68.48	61.27
Medinipur	Garhbeta-III	157394	31601	91.81	68.48	59.29
Sadar	Keshpur	352745	76191	96.68	70.95	61.57
	Medinipur	177924	33117	88.96	65.99	56.86
	Salboni	186151	35717	87.74	71.70	64.27
Ghatal Sub-division		879394	145441	80.42	78.44	74.59
Jhargram Sub	Jhargram Sub-division		195325	82.71	65.67	58.45
Kharagpur Su	b-division	1960485	363318	84.23	75.60	70.04
Medinipur Su	b-division	1247652	247499	90.71	69.26	60.78
Paschim Medi	inipur District	5163202	951583	84.87	72.49	66.17

Note: Projected population excluding municipality

Source: DISE, 2009, Paschim Medinipur

 Table 3.19 Dimension Indices and the Education Index for the blocks of Paschim Medinipur District

Table 3.19 Dimension indices and the Education index for the blocks of Paschim Medinipur District							ui District
Sub-division	Block	Enrolment Index	Rank	Adult Literacy Index	Rank	Education Index (EI)	Rank (EI)
Ghatal	Chandrakona-l	0.808	18	0.707	9	0.740	8
	Chandrakona-II	0.819	15	0.615	19	0.683	21
	Daspur-I	0.804	19	0.753	4	0.770	4
	Daspur-II	0.813	17	0.828	1	0.823	3
	Ghatal	0.783	25	0.753	5	0.763	5
Jhargram	Binpur-I	0.799	23	0.598	23	0.665	26
	Binpur-II	0.851	12	0.592	25	0.678	22
	Gopiballavpur-l	0.799	22	0.535	28	0.623	28
	Gopiballavpur-II	0.792	24	0.587	26	0.655	27
	Jamboni	0.755	28	0.626	14	0.669	25
	Jhargram	0.825	14	0.625	15	0.692	19
	Nayagram	0.883	8	0.492	29	0.622	29
	Sankrail	0.894	6	0.610	21	0.705	15
Kharagpur	Dantan-I	0.815	16	0.622	16	0.687	20
	Dantan-II	0.846	13	0.712	8	0.756	7
	Debra	0.755	27	0.713	7	0.727	12
	Keshiary	0.962	2	0.621	17	0.734	9
	Kharagpur-I	0.740	29	0.670	10	0.693	18
	Kharagpur-II	0.803	20	0.641	13	0.695	17
	Mohanpur	0.779	26	0.752	6	0.761	6
	Narayangarh	0.875	10	0.656	11	0.729	11
	Pingla	0.859	11	0.815	2	0.829	2
	Sabong	0.951	3	0.780	3	0.837	1
Medinipur Sadar	Garhbeta-I	0.912	5	0.605	22	0.708	14
	Garhbeta-II	0.800	21	0.613	20	0.675	24
	Garhbeta-III	0.918	4	0.593	24	0.701	16
	Keshpur	0.967	1	0.616	18	0.733	10
	Medinipur	0.890	7	0.569	27	0.676	23
	Salboni	0.877	9	0.643	12	0.721	13
Ghatal Sub-division		0.804	4	0.746	1	0.765	1
Jhargram Sub-division		0.827	3	0.584	4	0.665	4
Kharagpur Sub-division		0.842	2	0.700	2	0.748	2
Medinipur Sub-division		0.907	1	0.608	3	0.708	3
Paschim Medinipur District		0.849		0.662		0.724	

#### **Education Indices for the Blocks of PASCHIM MEDINIPUR District:**

Basic data for the construction of the Education Indices are presented in Table 3.18. It presents the data on enrolment in primary and upper primary education (as per DISE 2008-09 data), estimated literacy rate for 2008-09 and estimated adult literacy rate for the same year. It shows that the enrolment ratio is highest in Keshpur followed by Keshiary, Sabang and Garhbeta-III. High enrolment ratios in the otherwise less developed blocks like Keshpur, Keshiary and Garhbeta-III may be partly due to strong and extensive Sarba Siksha Abhijan (SSA) in these blocks. On the other hand, the enrolment ratios are relatively low in Jamboni, Binpur-I and Gopiballavpur-I & Gopiballavpur-II in Jhargram sub-division, in Chandrakona-II in Ghatal sub-division, in Kharagpur-I, Mohanpur and Debra in Kharagpur sub-division and in Garhbeta-II in Sadar sub-division. Given the literacy rates, the adult literacy rates are calculated for different blocks. It is found highest in Daspur-II followed by Pingla, Sabang and Daspur-I. It is lowest in Nayagram followed by Gopiballavpur-I, Medinipur and Gopiballavpur-II.

Indices based on normative goalposts for these two indicators and the combined education indices are presented in Table 3.19. It shows that the education index is highest in Sabang (0.837) followed by Pingla (0.829) and lowest in Nayagram (0.622) followed by Gopiballavpur-I (0.623). It implies that Sabang has succeeded to attain a 83.70% development in education and the remaining 16.30% is yet to be achieved and the success is due to its achievement to the tune of 95.10% in enrolment and 78.00% in adult literacy. On the other hand, in the block Nayagram, the attainment in education is only 62.20% and though the enrolment ratio in this block is not very low (88.30%) the ultimate attainment remains low for its low adult literacy rate at 48.20% only. If we look at the sub-divisions, we find that the attainment in education is highest in Ghatal sub-division (76.50%) and lowest in Jhargram sub-division (66.50%). The said index for all the blocks of Paschim Medinipur district taken together is 0.724. This implies that the rural areas of Paschim Medinipur district have attained 72.40% success in education (a more than 2/3rd success) and the remaining 27.60% is yet to be achieved.

In the construction of education index, we have used only indicators following the UNDP methodology. However, there are other indicators also as explained in this chapter. The main problem in accommodating all these indicators in the index is to attach proper weights to them. In the section below we present the scenario of the blocks in terms of the above two and some other important indicators through radars. The coloured area in the shown set indicates the proportion of development.

# Radar for different blocks of Paschim Medinipur District with different indicators of development in education

In the radar presentation of development in education we have considered five other indicators along with enrolment index and adult literacy index. The indicators as shown in the radars are:

- (1) Enrol = Enrolment
- (2) AdLit = Adult Literacy Index
- (3) FeLit = Female Literacy Index
- (4) SCLit = SC Literacy Index
- (5) STLit = ST Literacy Index
- (6) SSR = School Student Ratio Index
- and (7) TSR = Teacher Student Ratio Index

# Radar for Blocks of Ghatal Sub-division

Fig 3.21

Fig 3.22

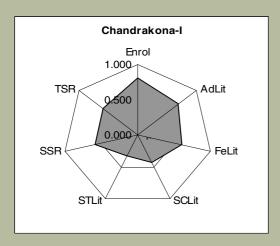
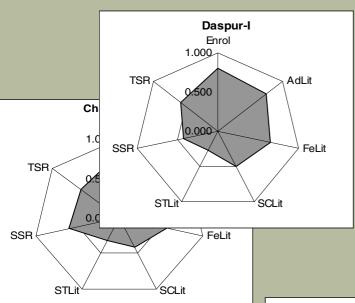


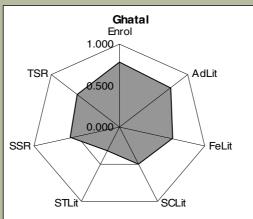
Fig 3.23

Fig 3.24



Daspur-II
Enrol
1.000
TSR
0.000
AdLit
STLit
SCLit

Fig 3.25



## **Radar for Blocks of Jhargram Sub-division**

Fig 3.26

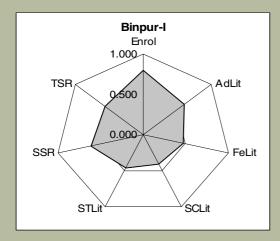


Fig 3.27

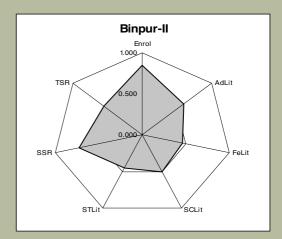


Fig 3.28

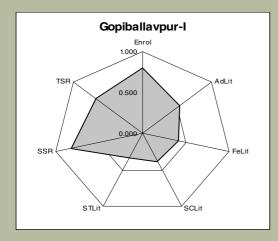


Fig 3.29

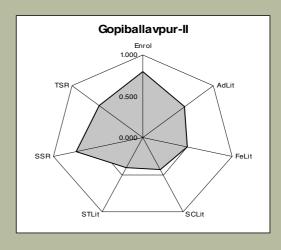


Fig 3.30

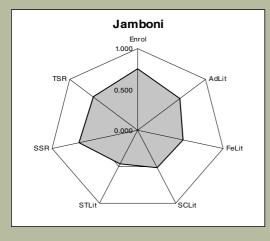
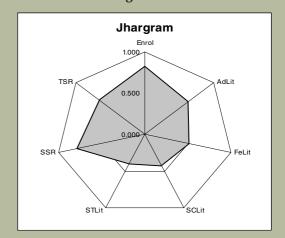


Fig 3.31



# Human Development Report Paschim Medinipur

Fig 3.32

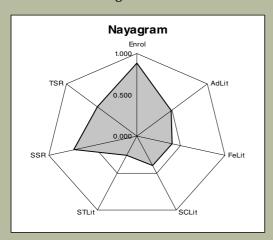
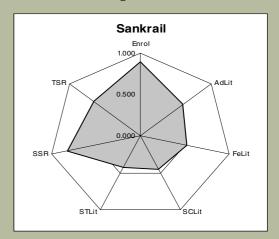


Fig 3.33



**Radar for Blocks of Kharagpur Sub-division** 

Fig 3.34

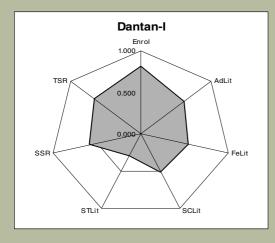


Fig 3.35

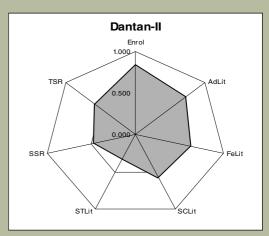


Fig 3.36

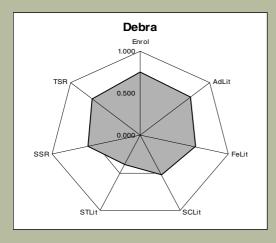


Fig 3.37

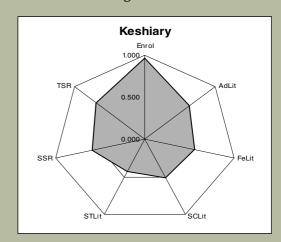


Fig 3.38

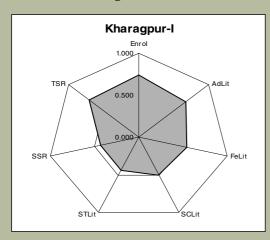


Fig 3.39

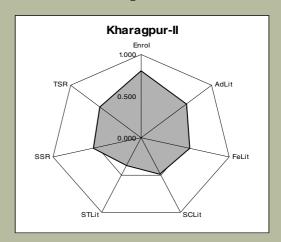


Fig 3.40

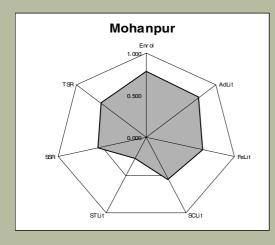


Fig 3.41

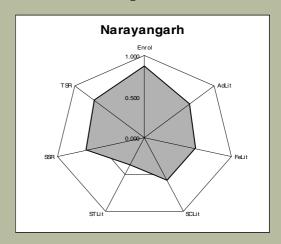


Fig 3.42

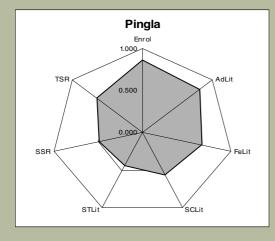
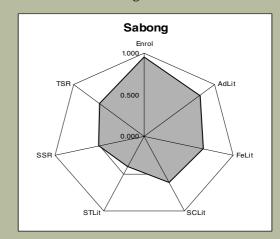


Fig 3.43



# **Radar for Blocks of Medinipur Sub-division**

Fig 3.44

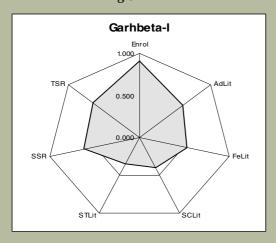


Fig 3.46

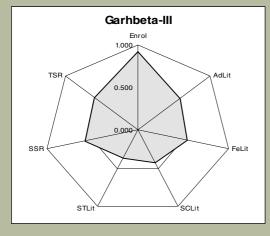


Fig 3.48

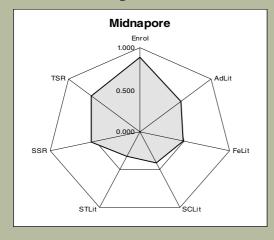


Fig 3.45

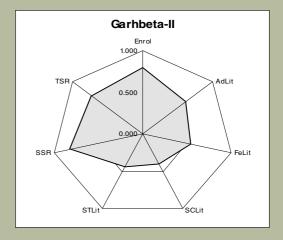


Fig 3.47

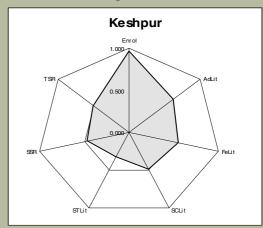
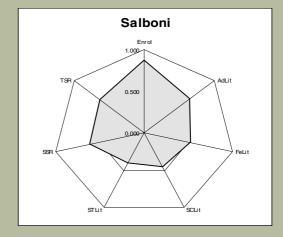


Fig 3.49





# CHAPTER IV. HEALTH



# Status of Helth

# **Chapter IV**

#### **Status of Helth**

#### 4.1 Introduction

Health as an aspect of human development is the most concerned one for developing countries like India because of the prevalence of an extensive (as well as intensive) malnutrition among the people in the rural areas and also in the slum areas of the towns. Out of eight broad objectives of Millennium Development Goals to be achieved by the year 2015 three directly point towards a long and healthy life. It is not very difficult to capture the achievement in health by a single variable - it is the life expectancy at birth. It reflects the attainment in health and captures all possible variables indicating development in health - its infrastructures or outcomes.

The United Nations Development Programme (UNDP), in its Human Development Reports (HDR), considers the life expectancy at birth as the simple and single indicator of achievement in health. The National Human Development Report of India (2003) has also used the same indicator. In the Human Development Report of West Bengal (2004) this indicator could not be used because of the non-availability of data on life expectancy at the district level. It has rather used infant mortality rate (IMR) as a negative indicator of development in health. Infant mortality is an indicator of child health and indirectly an indicator of mother health, but is not a complete indicator of health in general.

#### 4.2 Indicators of the Status of Health

Status of Health of the people in any region can be viewed by a large number of variables and they can be classified as infrastructures and outcomes or achievements, and also as flows and stocks (assets). Health infrastructures include number of private and government health centres, number of doctors and number of beds available in the region. On the other hand, outcomes in health are given directly in terms of life expectancy at birth, and inversely in terms of infant mortality rate, maternal mortality rate etc. These are again governed by the infrastructures or health facilities available and also by the health habits practiced by the people of the region. Thus proportion of institutional delivery out of total delivery, extent of mothers' health care programmes, immunization, public health care system to control diarrhea, leprocy, blindness, cholera, malaria, provision of drinking water, sanitation etc. affect the status of health of a region positively and malnutrition, drug addiction, etc. affect the same inversely.

#### 4.3 Status of Health in PASCHIM MEDINIPUR District

We can get an idea about the progress of the district in the health sector through a look at the key indicators as it came out from District Level Household Survey (DLHS)-3 conducted by the Indian Institute of Population Sciences (IIPS), Mumbai. It was designed to provide estimates on important indicators on maternal and child health, family planning and other reproductive health services along with information on the interventions of National Rural Health Mission (NRHM). The survey used two-stage stratified random sampling in rural and three-stage random sampling in urban areas using a sample size of 1061 households, 48 Sub-Health Centres, 27 Primary Health Centres, 29 Community Health Centres and one District Hospital.

Table 4.1 District scenario as reflected in District Level Household Survey-3

Indicators	Total	Rural
Percentage of girls marrying before completing 18 years	46.9	47.6
Percentage of birth of order 3 and above	15. <i>7</i>	15.9
Percentage of birth to woman during age 15-19 years out of total births	25.9	26.2
Percentage of currently married woman in the age group 15-49 years using any family-planning method	74.8	74.6
Percentage of mothers who had at least 3 Ante-Natal Care visits during the last pregnancy	49.1	49.4
Mother who got at least one TT injection when they were pregnant with there last live birth/still birth	88.4	88.3
Institutional births	45.1	45.0
Children (12-23 months) fully immunized (BCG, 3 doses each of DPT, Polio & Measles)	80.5	80.5

Source:- Indian Institute of Population Science, Mumbai

From an analysis of the data generated by the DLHS-3 it is seen that a sizeable number of girls in the district (46.9 % of the sample) are getting married before attaining an age of 18 years leading to early pregnancy as revealed in the fact that in rural area 26.2 % of the women gave birth of their first children within the age of 19 years. Use of family-planning methods has substantially increased over the years, but still it is seen that in 15.7 % of cases women have 3 or above children and 58.3 % of women of 20-24 age group reported to have given birth of 2 and above children. On the other hand, amongst the new-born babies, 19.5 % of the 12-23 month age-group are yet to be fully immunized. In a society in which majority of the population is engaged in agricultural pursuits and other allied activities and a majority of the population are daily wage-earner with low income level, all these figures indicate towards malnutrition amongst children, high incidence of infant and maternal mortality. On the maternal health front it appears that 49.1 % of the mothers have received at least three ante-natal care visits during last pregnancy whereas the percentage of institutional births was only 45.1 %, which say that so far as the health infrastructure is concerned, the district will have to go a long way to achieve the desired goals.

#### Health Infrastructure in the district

The success of health care in the District depends on the availability of health services and health infrastructure. The district has a total of 977 health-care institutions starting from the Health Sub-Centre level to the District Hospital at Medinipur, but when we look at the fact that these institutions with a total of 4858 beds are required to cater the district population of 5619212 (projected district population for 2009), it seems that we not only lack far behind the norms set by the World Health Organisation (WHO), but also by the average national standard. Also beneath the average figures there lies widespread regional variation within the district and in this respect the economically backward areas of Jhargram and Medinipur Sadar sub-division of the district lack behind the relatively advanced areas of Kharagpur, Ghatal and the remaining part of the Medinipur Sadar Sub-division.

**Table 4.2 Health infrastructure in the district** 

Unit	Number					
Mainstream Government Units						
Allopathic Medical College & Hospital	1					
Homoeopathic Medical College	2					
Tuberculosis Sanatorium (at Digri)	1					
Sub-divisional Hospital	3					
Rural Hospital	9					
Block Primary Health Centre	20					
Primary Health Centre	82					
State Medical Unit (at Kharagpur)	1					
Health Sub-Centre	858					
Total bed strength of mainstream government units	4858					
Other Government Hospitals						
EFR Hospital	1					
Corectional Home Hospital	1					
Police Hospital	1					
South Eastern Railways Hospital	1					
Air Force Hospital (at Kalaikunda)	1					
Total bed strength of other government hospitals	446					
Hospital run by private agencies and non-governmental organisations	119					
Total bed strength of private institutions	1152					

Source:- Chief Medical Officer of Health, Paschim Medinipur, 2010

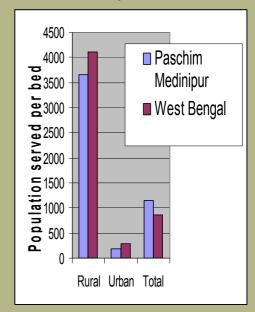
At present in the context of availability of health-care institutions, the district stands far below the national norms, specially in tribal areas of Jhargram and Medinipur Sadar sub-divisions. With the coming up of more sub-centres, the district hopes to achieve the national norm with respect to sub-centre facility, but services of primary health centre with a regular and sound health set-up still elude the rural population of the district. As it is observed from the chart below the district is lagging well behind the national norms set for the numbers of different types of health centres in any region.

**Chart 4.1 Primary health Care facilities: Comparison of Paschim Medinipur with National Norm** 

	National norm	Present position in the district
Health Sub- Centre	For every 5000 population in plain area and for 3000 population in tribal area	6053
Primary Health Centre	For every 30000 population in plain area and for 20000 population in tribal area	63334
Community Health Centre	For every 1.00-1.20 Lakh population serving as a referral institution for four primary health centres	5. <i>77</i> Lakh

Source:- Bulletin on Rural Health Statistics in India & Health on the March, 2007-2008 published by the Government of West Bengal

Fig. 4.1 Population per bed- a comparison



Source:- Health on the March, 2007-'08

Table 4.3 Block-wise availability of Doctor, Bed and Health Centre during 2004-05\*

Name of the	Average p	oopulatio	n served by	Name of the Block	Average	e populati	on served by
Block	One	One	One health		One	One	One health
	doctor	bed	centre		doctor	bed	centre
Binpur-I	17923	2703	30125	Gopiballavpur-II	15844	2674	24617
Binpur-II	18193	5452	36587	Jambani	16885	3685	35025
Chandrakona-I	8955	3516	25615	Jhargram	19105	5638	32785
Chandrakona-II	15676	1560	54246	Keshiary	16672	6170	34521
Dantan-I	25315	10192	55213	Keshpur	32114	9172	97857
Dantan-II	26784	7265	48356	Kharagpur-I	5975	590	84392
Daspur-I	20592	5129	55497	Kharagpur-II	33490	7527	52610
Daspur-II	35247	7936	52551	Mohanpur	19326	6122	33215
Debra	26890	5 <b>7</b> 13	68029	Narayangarh	24819	2956	69125
Garhbeta-I	19504	2926	68475	Nayagram	21132	4012	32154
Garhbeta-II	34181	6784	45125	Pingla	28546	5695	40359
Garhbeta-III	7940	485	52068	Sabong	26744	4792	78653
Ghatal	25726	7138	48667	Salbani	19332	4835	56005
Gopiballavpur-I	11964	3644	25300	Sankrail	15510	3524	32506

<sup>\*</sup>Medinipur Sadar Block has not been taken into account because of proximity to Medinipur town. Source:- Chief Medical Officer of Health, Paschim Medinipur

Another important area of concern is the availability of bed in health institutions. Whereas in the rural area of the district, 3651 people are catered by one bed which is quite fair compared to the state scenario (4105 persons per bed), but it is well below the national norm of 1000 persons per bed. Also there are widespread inequalities amongst the Blocks so far as availability of doctor, bed and health centre is concerned as is evident from the table.

# Chart 4.2 Gram-Panchayat based Mobile Health Camp

One important intervention in the health-care sector is the organization of Gram-Panchayat based mobile health camps in which health camps are organized at Gram-Panchayat Headquarters Subcentre once a week. The district has a total number of 179 Gram-Panchayats not having a Rural Hospital,

Sub-Centre has been attached and is situated near the Gram-Panchayat office for providing better health service to the people of the entire Gram-Panchayat area.

BPHC or a PHC. For those Gram-Pachayats one

The health camps in those sub-centres are being organized regularly and the entire project is getting overwhelming response from the rural people.

People in the queue for treatment

Some statistics				
Year	Health camps	Number of patients treated		
2007-2008	5607	326278		
2008-2009	5255	308813		
2009-2010 (upto June, 2009)	1364	68111		

Source:- Chief Medical Officer of Health, Paschim Medinipur

National Rural Health Mission (NRHM) has come as a boon in providing unique and wider opportunity and a real scope for this district for preparation of yearly perspective plan till 2012 which will be a continuous exercise & there exists enough scope for improvements & modifications each time, outlining the year-wise availability of resources and activity-needs of the district. Under NRHM, the district has been able to face the problems of shortcomings in the health infrastructures and is implementing the national health programmes successfully with special emphasis in nineteen ITDP Blocks with the help of the representatives of three-tier Panchayat system and other government departments like Integrated Child Development Scheme (ICDS) etc. Out of these Blocks, twelve backward Blocks with tribal population on the higher side have been chosen as focused Block for intensive coverage.

**Table 4.4 Block-wise Present Status of Construction of Sub-centre Buildings** 

	Numb	er of Sub-cen	tre		Νι	umber of Sub-c	entre
Block	Existing Sub-centre	Building to be constructed	Construc-tion works completed or running	Block	Existing Sub-centre	Building to be constructed	Construc-tion works completed or running
Garhbeta-I	37	33	9	Kharagpur-II	25	22	10
Garhbeta-II	28	25	7	Keshiray	26	22	6
Garhbeta-III	24	21	12	Narayangarh	45	41	12
Salboni	35	31	10	Dantan-I	27	24	6
Keshpur	49	45	18	Dantan-II	23	20	4
Medinipur	25	22	8	Mohanpur	18	15	3
Binpur-I	33	27	11	Debra	44	39	12
Binpur-II	36	32	15	Pingla	29	25	10
Jamboni	25	22	9	Sabang	36	32	12
Jhargram	32	27	10	Daspur-I	31	27	6
Gopiballavpur-I	21	17	9	Daspur-II	34	30	6
Gopiballavpur-II	22	18	9	Ghatal	32	29	8
Sankrail	22	19	9	Chandrakona-I	23	17	4
Nayagaram	28	24	12	Chandrakona-II	23	20	5
Kharagpur-I	25	21	10	District total:	858	747	262

Source:- Chief Medical Officer of Health, Paschim Medinipur, 2010



Kankabati Gram-Panchayat Headquarters Sub-centre in Medinipur Sadar Block

The district administration has concentrated on the strengthening of infrastructure at the Subcentre level and has taken up the work of construction of buildings for all the Sub-centres of the district. Whereas out of 858 Sub-centres, construction of buildings for 262 is either complete or started, for other 86 Sub-centres, land for the construction has been finalised. Additional manpower in the form of Link Person, ASHA and Second ANM has also been provided at the Subcentre level to improve the quality of service.

As the present set-up in the focussed Blocks are not sufficient to meet the demand of the people of those areas, with a view to reach the masses in a more effective manner, the district administration has

proposed for creation of new Subcentres in twelve focussed Blocks following the norms of 3000 population per Sub-centre in tribal area and 5000 population in other areas, which calls for more 170 numbers of Sub-centres in those Blocks.

Apart from, with the available infrastructural facilities at hand, the district administration has started

Table 4.5 Sub-centre level additional manpower provided					
Intervention	Nur	nber of pers	ons		
intervention	Allotted	Engaged	Working		
Link Person	5992	5992	5992		
ASHA	3783	1562	898		
Second ANM	858	757	266		

Source:- Office of the Chief Medical Officer of Health, Paschim Medinipur

some intervention to improve the health status of the people, specially in the focused Blocks, which are mentioned below:

Table 4.6 Health Institution Profile of Twelve Focused Blocks

Name of the Block	Number of Gram- Panchayats	Rural Hospital	Block Primary Health Centre	Primary Health Centre*	Sub- health Centre
Binpur-I	10	1	-	5	33
Binpur-II	10	-	1(Upgraded to 60-bedded)	3	36
Jamboni	10	-	1	2	25
Jhargram	13	-	1	4	32
Gopiballavpur-I	7	-	1	3	21
Gopiballavpur-II	7	-	1(Upgraded)	3	22
Nayagram	12	-	1 (Upgraded to 30-bedded)	3	28
Sankrail	10	-	1(Upgraded	2	22
Garhbeta-II	10	-	1(Upgraded to 30-bedded)	2	28
Salboni	10	1	-	1	35
Keshiary	9	-	1(Upgraded)	1	26
Narayangarh	16	-	1(Upgraded to 60-bedded)	1	45
* Some of the Sub-Health centres are either upgraded or the work of upgradation is going on					

Source:- Chief Medical Officer of Health, Paschim Medinipur

- Cash incentive to pregnant mother belonging to BPL and SC/ST category under Janani Suraksha Yojana for maintenance of maternal nutrition, institutional delivery and to & fro referral transport.
- BCC through village-level meeting by Sub-centre staff
- Arrangement for supply of MCR for leprosy-affected persons and reconstructive surgery operation for patient with leprosy-related deformity
- Supply of bed-net & community bed-net impregnation, mass drug administration, use of rapid diagnostic kit, etc. for prevention of malaria
- Holding of daily medical camp by one medical officer at Kantapahari under Sijua Gram-Panchayat of Binpur-I Block

lock

- Provision of District Illness Assistance Fund for indoor treatment for BPL patients
- Organization of Gram-Panchayat based mobile health camp once a week at headquarters Subcentre having no rural hospital, BPHC or PHC.
- Organization of disability certification camp at Block level to identify & certify disabled persons.
- Preliminary health screening camp & distribution of Jiban Jyoti Health Card to tribal people.

Table 4.7 Block-wise requirement of Sub-centres as per National Norm for Twelve Focused Blocks

Sl. No.	Name of the Block	Population as per 2001 census	Total Sub-centre required as per national norms	Existing number of Sub-centre	Number of additional Sub- centres required
1	Garhbeta - II	131103	43	28	15
2	Salboni	165248	50	35	15
3	Binpur - I	139148	46	33	13
4	Binpur - II	145977	48	36	12
5	Jamboni	101718	33	25	8
6	Jhargram	153331	51	32	19
7	Gopiballavpur- I	94834	31	21	10
8	Gopiballavpur- II	93306	31	22	9
9	Sankrail	102634	34	22	12
10	Nayagram	123937	41	28	13
11	Keshiary	132061	40	26	14
12	Narayangarh	266675	75	45	30
	Total	1649972	523	353	170

Source:- Chief Medical Officer of Health, Paschim Medinipur

#### **Chart 4.3 Tribal Health Plan**



Starting from the year 2007-2008, composite medical camps are being organized in the tribal areas of identified Blocks. For this purpose eleven Blocks were selected, out of which camps are being organized presently in five Blocks, viz., Sankrail, Gopiballavpur-I, Keshiary, Salboni and Garhbeta-II. All these Blocks have a good number of tribal population and in these camps health check-up and routine immunization take place.

# People in a tribal health camp

Year	2007-'08	2008-'09	2009-'10 (upto June, '09)
Camps held	8	95	25
Patients treated	768	5488	1325

# Jiban Jyoti Scheme

The scheme has presently been introduced in Binpur-II Block of which 42 % of the 145977 people are tribal. The objective is to provide health care services absolutely free of cost to the tribal people, particularly those of Lodha and Sabar communities.

Under the scheme initially Jiban Jyoti Cards are distributed to the target beneficiaries through special camps, which facilitate them to avail free treatment and investigation from any government health machinery including medical college.

Though presently it is being run at Binpur-II Block, the district administration wants to introduce the scheme in all the twelve focused Blocks in a phased manner.

Source:- Chief Medical Officer of Health, Paschim Medinipur

# Chart 4.4 Health awareness campaign & Health Camps - Involvement of NGO

In this connection it may be mentioned that some non-governmental organisations have come forward for organizing special camps for RCH & immunisation and improvement of health awareness, specially amongst the tribal people as a result of which it has become possible to reach the unreached mass in a bigger way and achieving success on the health sector amongst the target group in those areas.

- Kasba Shed Foundation is engaged in tribal area development through IEC/BCC & health check-up in four Blocks of Garhbeta-II, Salboni, Keshiary & Nayagram, covering a total of 41 Gram-Panchayats. They are organising monthly camps to examine patients, distribute medicines, take up the works of immunization activities and awareness generation.
- Manbhum Ananda Ashram Nityananda Trust (MANT) is taking up the work of routine immunization, ANC & institutional delivery, prevention of communicable diseases through IEC, BCC, regular health camps in fourteen selected Blocks spread over Jhargram, Medinipur Sadar & Kharagpur Subdivisions.
- Some FNGOs have taken up special immunization service in relatively inaccessible areas of four Blocks. The Blocks and selected places are:- (1) Gopiballavpur-I (Dhansole & Telant) (2) Nayagaram (Bonisole & Baradanga) (3) Binpur-II (Kankrajhore & Chhurimara ) & (4) Binpur-I (Sijua & Bahadurpur)

Source:- Chief Medical Officer of Health, Paschim Medinipur

# Reproductive & Child Health

Table 4.8 Reproductive & Child Health - Key indicators of Paschim Medinipur District

•	
Percentage of girl marrying before 18 years	46.9
Percentage of births of order 3 and above	15.7
Sex ratio at birth	906
Currently married (15-49 age-group) women using any family welfare method (%)	63.4
Total unmet need for family planning (%)	10.1
Mothers who had at least three ante-natal care visits during pregnancy (%)	49.1
Institutional births (%)	45.1
Children (12-23 months) fully immunized (%)	80.5
Children breast fed within one hour of birth (%)	39.3
Women heard of HIV/AIDS (%)	48.7

Source:- District Level Household & Facility Survey-3, 2007-08

district.

Coming back to the Millennium Development Goals pronounced in the year 2000, two important objectives mentioned there are to reduce child mortality and improve maternal health. The global picture is not very bright and India has also failed to achieve at the desired level on these two fronts. Proper attention on the improvement of child and maternal health is a pre-requisite for removal of poverty and hunger and in broader sense, improvement of the physical quality of life of a society. Also there are other indicators which require appropriate attention for betterment of the quality of life in the

Here we will discuss the district scenario with reference to some important indictors to get an overall picture of rural society of Paschim Medinipur.

#### **Infant mortality**

Infant mortality is always a painful event for a family and as such in interior parts of the district, it goes beyond the look of health administration as parents do not want to get it registered. This has always come on the way of getting authentic picture of infant mortality in the district.

In India, malnutrition accounts for half of the child deaths, the rate of which has come down in gradual manner from 1993, though it is still high. As to West Bengal, as per the latest data available through National family Health Survey (NFHS-2), the infant mortality rate is forty-nine per thousand live-birth. In the district the major causes of infant mortality are pneumonia, diarrhea, malaria, which cause death even after the first month of life. From the data available with the office of the Chief Medical Officer of Health, Paschim Medinipur it is seen that during the first six months of 2008-09, a total of 1026 numbers of infant death was reported whereas during the corresponding period of 2009-10, the number of deaths was 768. This shows a downward trend which makes us optimistic, but this trend has to be continued over the years. Also two other factors must be kept in mind that a good number of infant deaths are not reported and secondly there is widespread regional variation in number of infant deaths across the district. So far as the causes of death are concerned, analysis reveals that 21.9 % of the death occurred during April-September, 2009 were by respiratory diseases, 24.2 % by LBWs and 12.4 % by birth asphyxia. The district has stressed on the reduction of death rate in early months of childhood through effective management of ongoing programmes as it is seen that the first few months are vital so far as infant mortality is concerned.

## **Maternal mortality**

Maternal mortality is a major aspect of health status. In India maternal mortality is 301 (2001 - 03 Special Survey of Deaths using RHIME) and in West Bengal it was 194. But intensive drives taken by the health system are bringing good results over the last few years.

NRHM report of the district for 2008-09 reveals that in this district it was 140 in 2004-05 and further came down to 104 in 2008-09. If we look at the comparative analysis, 49 cases of maternal mortality was reported during the first half of 2008-09, whereas during the corresponding period of 2009-10, the number of such death was 25, which shows that there was a reduction of about fifty per cent. Lack of care during child birth is held primarily responsible for maternal death whereas there are other causes of anemia.

There are provisions of antenatal care under the pre sent public health system, which are contributing in reducing the maternal mortality in the district. Important factors in this regard are:- (i) care before delivery, (ii) place of delivery and presence of personnel at the time of delivery and (iii) post delivery care, out of which factor (ii) is most important towards reducing maternal mortality. Also all these point towards the poor socio-economic condition in which the majority of the children of rural society of the district come to the world, which need to be improved.

## **Institutional delivery**

Institutional delivery is a measure that arrests maternal mortality to a large extent Institutional deliveries are rated as single largest factor to the well-being of mother and neonatal.

**Table 4.9 Delivery status in the district** 

Item	2008-09	2009-10 (April-June)
Total delivery	91011	21066
Institutional	56491 (62%)	13943 (66%)
Home	34520 (38%)	7123 (34%)

Source:- Chief Medical Officer of Health, Paschim Medinipur

Thus, a gradual improvement is occurring in the percentage of institutional deliveries over the last 8 years. But it still varies around 65 percent of the total deliveries. Percentage of deliveries by non-medical untrained persons, though reducing, is still more then ten per cent.

Table 4.10 Coverage under Ayushmati Scheme in Paschim Medinipur\*

	2007-08	2008-09	2009-10 (April-June)
Total Delivery	397	1847	470
Caesarian Section	212	616	112

<sup>\*</sup> Number of accredited private health facility:- 9

Source:- Chief Medical Officer of Health, Paschim Medinipur

Table 4.11 Incentive to pregnant mothers of SC & ST families belonging to BPL under Janani Surakshya Yojana (JSY)

Item	2007-08	2008-09	2009-10 (April-June)
For maintenance of maternal nutrition in	23924	60479	8125
For institutional delivery	15979	19699	5283
Referral transport scheme	14382	21446	5603

Source:- Chief Medical Officer of Health, Paschim Medinipur

Performances of individual Blocks during 2005-06 and 2008-09 reveal that there exist wide variations in this respect among the Blocks. Consideration of places of birth and types of assistance during delivery in the Blocks shows that percentage of institutional birth varies from 11.7 per cent in Kharagpur-II Block to 87.4 per cent in Medinipur Sadar Block. Percentage of institutional delivery is less that 50 per cent in 13 out of 29 blocks. This figure is higher then the district average of 62.24 per cent only in ten Blocks. Percentage of institutional delivery has increased in all the Blocks except in three Blocks, viz., Chandrakona-I, Debra and Pingla Blocks.

# Age of marriage and fertility

Age of marriage and the age at which a woman gives birth to her first child is an important health indicator of a society so far as attainment of goals in health sector is concerned. The minimum age of marriage as stipulated by the government is 18 years for girls and it is expected that she will give birth at 19 years of age. But still in the district like other parts of the State and the country as a whole, there are substantial numbers of early marriages leading to early pregnancy and consequentially to maternal mortality, infant mortality or even sick babies. As per DLHS-3 conducted during 2007-08 in the district, 47.6 percent of the girls still get married before attaining the age of 18 years in rural areas inspite of various steps taken for awareness. This is corroborated by other information that 26.2 per cent of the rural women get their first child within 19 years of age. Numerous cases are also there of becoming mother at the age of 15-16 years.

Table 4.12 Block-wise estimated birth rate and female literacy rate

Block	Estimated birth rate	Female literacy rate	Block	Estimated birth rate	Female literacy rate
Garhbeta-I	23.95	53.00	Kharagpur - II	22.51	55.50
Garhbeta-II	22.51	54.00	Keshiray	22.57	55.20
Garhbeta-III	25.25	55.30	Narayangarh	21.90	59.30
Salboni	22.65	52.20	Dantan - I	23.60	53.70
Keshpur	25.25	54.50	Dantan- II	22.84	62.70
Medinipur	23.96	47.80	Mohanpur	21.97	64.00
Binpur-l	22.67	47.60	Debra	20.47	62.50
Binpur-II	21.37	46.70	Pingla	20.98	68.40
Jamboni	21.87	53.30	Sabang	21.02	67.30
Jhargram	21.80	51.70	Daspur-I	20.17	64.50
Gopiballavpur-I	23.56	42.40	Daspur -II	19.57	70.70
Gopiballavpur-II	22.58	49.60	Ghatal	21.37	62.10
Sankrail	23.03	52.90	Chandrakona-I	21.57	60.50
Nayagaram	25.29	40.60	Chandrakona-II	24.21	56.30
Kharagpur - I	19.78	61.10			

Source:- Health on the March, 2007-'08

Also still in the district 15.7 per cent of the women give birth of the order of three and above, while 58.3 per cent of the women of 20-24 age-group report birth of two and above. All these information indicate that we still have to go a long way in coming out of the second stage of demographic transition in the district.

Factors like lack of awareness, dowry system, age-old desire of the society to have male-child contribute largely to early marriage, early pregnancy and higher birth order. Efforts are on to address the evils, but it is still along journey for the district.

# **Conclusion**

To improve its position in reproductive & child health sector, the district has stressed on antenatal care, institutional births, immunization coverage of mothers & new-borns, increase the use of family planning methods. As per DLHS-3, presently 49.1 per cent of the pregnant women are getting three ante-natal care visits during last pregnancy. It has improved significantly, but the gap between the target and achievement points towards lack of proper health infrastructure in remote areas of the district. For more institutional births, expansion of PHCs are taking place in a big way in the district and more number of trained birth-attendants have also been pressed into service, which will definitely improve the situation. Post-natal care is also being looked into with greater emphasis as most of the rural women in Paschim Medinipur suffer

from anemia and other diseases. The district also intends to achieve total success in child immunization, in which the present percentage is 80.5 per cent. In all, we want to achieve our goals through proper addressing of the areas of backwardness in health sector.

#### **Public Health**

Public health is 'the science and art of preventing disease, prolonging life and promoting health

#### **District Illness Assistance Fund**

In a district like Paschim Medinipur, where 44.53 % of the population lives below the poverty line, the District Illness Assistance Fund comes as of much help at the time of treatment. The district health administration has so far succeeded to help a number of 4060 people under the fund till July, 2009, but still there are 974 pending cases by that time.

# The picture is as follows:-

- Number of persons assisted:- 4060 (Out of which 723 are of dog-bite cases and 3337 are others)

Source:- Chief Medical Officer of Health, Paschim Medinipur

through the organized efforts and informed choices of society, organizations, public and private, communities and individuals.' (C.E.A. Winslow, The Untitled Field of Public Health, Science). The focus of public health intervention is, therefore, to prevent rather than treat a disease through surveillance of cases and promotion of healthy behaviour. In a developing country like India, public health infrastructures are still forming and as a result, a large majority of disease and mortality in the

developing world results from and contributes to extreme poverty. The district, with agrarian base, still suffers from a number of conventional diseases to a large extent.

Here we will discuss some of these major public health problems of the district.

#### **MALARIA**

In this district incidence of malaria is high, especially in some selected zones of Jhargram and Medinipur Sadar Sub-division. Specially six Blocks of the district, viz., Binpur-I, Binpur-II, Jamboni, Jhargram, Garhbeta-I, Garhbeta-II are endemic.

The fact that the vector (Anoph. Culicifacis) has become resistant to DDT and malaria parasites becoming resistant to choloroquine also have become detrimental in arresting the incidence of malaria in those areas. On the other hand, lack of health awareness and inaccessibility of the malaria-prone areas by the service providers of health department are also responsible for the high incidence of malaria in the district.

2007 2008 2009 (Januray-June) Type Attack Death **Attack** Death Attack Death 2678 Benign Malaria(PV) 0 2213 0 849 0 Plasmodium falciparum 2336 4 1243 17 606 6 (malignant)

**Table 4.13** Incidence of Malaria in Paschim Medinipur district

Source:- Chief Medical Officer of Health, Paschim Medinipur

Binpur-II Block is a highly malaria-prone area where all the four casualties took place in 2007, but in 2008 there was no death in that Block. Another important point to be noted that the number of deaths was higher in 2008, even lesser number of people were attacked compared to 2007.

The following interventions are taking place in the district to prevent incidence of malaria:-

- Indoor Residual Spray has started from May, 2009 in Blocks like Binpur-I, Binpur-II, Jamboni, Nayagram, Jhargram, Gopiballavpur-I, Gopiballavpur-II, Keshpur and Garhbeta-II.
- Distribution of bed-nets have been done as follows:-
  - Garhbeta-II 1500 nos. O
  - Binpur-II 25000 nos. o
  - Jamboni 1000 nos. 0
  - Jhargram 1500nos.
- Community bed-net impregnation 278520 nos. Ø
- Mass Drug Administration
- Use of Rapid Diagnostic Kit at Sub-centre level Ø
- Active & passive slide collection for fever cases Ø
- Gram-Panchayat level IPC workshop with community members

#### **TUBERCULOSIS**

Like other backward districts of the State, tuberculosis has still remained a major killer disease in the district. Under Revised National Tuberculosis Programme (RNTCP), two-pronged targets have been taken which are to reduce the mortality rate on one hand and on the other hand also to abolish the transmission process of the said infection.

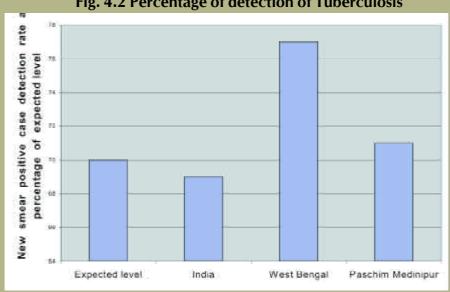


Fig. 4.2 Percentage of detection of Tuberculosis

Source:- Health on the March, 2007-'08

Table 4.14 Tuberculosis - district fact sheet

Year	2007	2008	2009
Total TB case detection	6612	6636	3430
Cure rate of new smear positive case	86.25%	84.75%	86.56%
Sputum conversation (3 months) rate	89.50%	89.75%	90.50%
TB Death	208	233	127

Source:- Chief Medical Officer of Health, Paschim Medinipur

In the district new smear positive case detection rate was 54 per lakh of population in 2006-07, 3 - month conversion rate was 90 % and the cure rate was 86 %. The district is continuously

making progress in the area, but still number of deaths has not reduced over the years.

The following interventions have been taken in the district to get rid of the ailment:-

- Intensive training & sensitization of the staff at all tiers, rural medical practitioners, private practitioners, non-governmental organizations etc.
- Collection of sputum through 26 centres
- Massive IEC through cable network, television, local newspapers, street hoardings etc.
- ✓ Involvement of non-governmental organizations for urban DOT-providers & treatment adherence.

#### **LEPROSY**

Leprosy is another dreaded disease in the rural society of this district. It has a high prevalence rate like other adjacent districts of the State. With the introduction of Multi Drug therapy (MDT) in 1988, the prevalence rate has reduced and the district has made much progress, but still the percentage of deformity amongst the newly detected cases is laying around one percent over the years, which is an area of concern.

Table 4.15 Progress under National Leprosy Programme (NLEP) in Paschim Medinipur

Ye	ear	2007-08	2008-09	2009-10	
New Case Detected	РВ	673	688	181	
	MB	859	890	237	
Released from	PB	512	601	139	
Treatment	MB	659	658	191	
Incidence amongst child and female out	Percentage of child	8.95 (137)	9.32 (147)	9.1 (39)	
of New case detected	Percentage of female	35.21 (539)	33.52 (529)	32.2 (134)	
Deformity rate (as pedetected)	ercentage of new case	1.76 (27)	1.08 (17)	0.69 (9)	

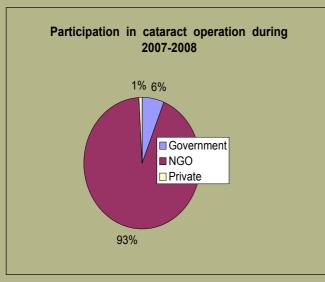
Source:- Chief Medical Officer of Health, Paschim Medinipur

In terms of prevalence rate (PR), which is an important indicator in leprosy detection, the district had a PR of 1.89 (per 10,000) in 2007-08 compared to the state figure of 1.04.

Major interventions adopted in the field are:

- Special campaign & case detection with POID camps at Gram-Panchayat level
- Re-constructive surgery for leprosy related deformity care at Jhargram Sub divisional hospital
- Care of persons with deformity through self-care groups in association with non-governmental organizations

#### **BLINDNESS**



Source:- CMOH, Paschim Medinipur

Blindness also affects a substantial percentage of rural population in the district and the district is trying to combat the situation under the National Programme for Control of Blindness. In the year 2007-2008, the district reached 82 % of the target of cataract operation with the involvement of the non-governmental organizations (NGO). Participation of NGOs has improved the performance substantially, but still the district is yet to reach its year-wise target for which more involvement of NGOs and private organizations are required as the governmental infrastructure is not at all sufficient to cater the need. So far as performance of school eye screening programme, there is scope of improvement in the achievement.

#### **DIARRHOEA**

Attacks and deaths due to diarrhea also need special mention for this district as poverty coupled with low level of hygienic awareness amongst the rural people, cases of diarrhea come out almost every year specially during summer and early rainy season. Except the cause of lack of awareness, other important reason is the non-availability of pure drinking water during summer when the water level goes down substantially in various parts of the district, especially in the laterite regions of Jhargram and Medinipur Sadar sub-division. Another reason is the use of drinking water from dug wells which receive rain-water carrying the night soil of catchments area in early rainy season.

The district is yet to achieve the target of providing safe drinking water to each family, but we are very

Table 4.16 Incidence of diarrhoea in Paschim Medinipur

Year	Attack rate (AR) (no. of cases reported per thousand population)	Case fatality rate (CFR) ( no. of deaths per hundred case)	No. of deaths
2006	33	0.02	32
2007	29	0.02	31

Source:- Health on the March, 2007-'08

close to the target. However, due to the seasonal variation of water-level, the safe drinking water does not become available in dry seasons, which is a problem needs to be

addressed. On the other hand, the district administration is trying to make provision of sanitary latrine to each household of the district and remarkable progress has also been achieved in the area. These two interventions will reduce the incidence of diarrhea in the district to a large extent.

#### **AIDS**

The district has a sizeable number of HIV+ cases and moreover it is facing an upward trend in the HIV-related problem, which needs strong intervention. Out of the total number of seropositive cases detected in West Bengal till March, 2008, the district ranked fourth amongst the districts so far as total numbers of

Table 4.17 Number of cases detected positive for HIV till March, 2008

Paschim Medinipur	606
West Bengal	15142

Source:- Health on the March, 2007-'08

cases were concerned. Three Blocks in Ghatal sub-division of this district have already reported some incidences, which may be specially due to the fact that young male members from a good number of families of these areas go to the western part of the country for earning their livelihoods for a substantial period of each year

and carry back HIV in those areas.

Steps are being taken to spread awareness amongst the people of the district in general and especially those in the affected Blocks with the twin objective of treatment of the HIV+ cases and to see that incidence rate of cases fall in the district as a whole.

# **Integrated Child Development Scheme (ICDS)**

The National Policy for Children, 1974, is founded on the conviction that child development programmes are necessary to ensure equality of opportunity to the children. It provides the framework for assigning priorities to different needs of children (before and after birth), and for responding to them in an integrated manner. Integrated Child Development Services (ICDS) is India's response to the challenge of meeting the holistic needs of the child and today ICDS is a powerful outreach programme to help achieve major national nutrition & health goals and also the national goal of universal primary education.

For development of women and children the district proposes:- (1) to cover the whole district under ICDS and to improve the infrastructure of the ICDS, (2) to give special emphasis on women & children while implementing various general development schemes, and (3) to increase the active participation of women in all the decision-making units of development programmes. While the second and third objectives demand a sound and healthy rural society, the first one can address the malnutrition and other health-related backwardness of rural women & children in an effective way and contribute towards the formation of a healthy rural society which can take part in developmental activities of the district through proper decision-making.

# ICDS in Paschim Medinipur - at a glance

	Infrastructure					
Number of ICDS projects operating since 2007	31 (tribal projects:- 8, rural project:- 21, urban project:- 2)					
Number of Anganwadi Centres (AWC) operating since 2007	6771 (out of the 6996 AWCs sanctioned, 40 nos. of AWCs in Kharagpur Urban project and 185 nos. of AWCs in Kharagpur-II project have not been operationalised due to court case. Out of the total operational centres, 481 are situated in backward villages.)					
Coverage (as on December, 2008)						
Pregnant and lactating moth	er	77665				
Children in the 6 months-3 y	ears age-group	214261				
Children in the 3 years-6 years	ars age-group	227240				
Coverage under other interventions (since inception up to December, 2008)						
Balika Samriddhi Yojana		12820				
Kishori Shakti Yojana		4689				
Anganwadi Karjyakartri Bim	a Yojana	3358				

Source:- District Programme Officer, ICDS, Paschim Medinipur

The ICDS set-up in the district is providing coverage to a large number of rural children and pregnant and lactating mothers of poor families of the district to improve their nutrition level as is evident from the figure that as on September, 2009, a total of 446840 children and 80991 numbers of pregnant and lactating mothers are getting the support of Supplementary Nutrition Programme (SNP).

Table 4.18 Project-wise coverage and infrastructural facilities available under ICDS (as on September, 2009)

			Number of	f SNP bene	ficiaries				
No. of the Project	No. of AWCs running	Children between 6 months -3 years	Children between 3 years-6 years	Pregnant and lactating mother	Number of children in Grade III &IV	No. of AWCs having own building	No. of AWCs having tubewell	No. of AWCs having toilet facility	No. of new AWCs sanc- tioned
Midnapore Sadar	184	9005	10410	3554	156	26	45	29	83
Midnapur Urban	85	3476	2536	999	56	0	85	85	15
Keshpur	350	15341	15372	5415	104	25	318	168	92
Salboni	330	9036	8806	3368	167	237	81	120	25
Garhbeta-I	237	9535	8394	3201	58	153	74	115	73
Garhbeta-II	262	6402	6044	2312	77	74	248	81	25
Garhbeta-III	155	6500	6769	2302	20	40	119	25	77
Kharagpur-I	172	6294	6295	2353	252	60	33	20	220
Kharagpur-II	•	None of the 185 AWCs are running due to court case 104							104
Debra	288	9296	9245	3618	135	39	288	25	134
Pingla	182	7252	7392	2749	106	30	151	25	68

			Number of	f SNP bene	ficiaries				
No. of the Project	No. of AWCs running	Children between 6 months -3 years	Children between 3 years-6 years	Pregnant and lactating mother	Number of children in Grade III &IV	No. of AWCs having own building	No. of AWCs having tubewell	No. of AWCs having toilet facility	No. of new AWCs sanc- tioned
Sabong	254	11165	10203	3940	59	15	203	107	92
Mohanpur	102	4201	4325	1950	118	5	70	66	34
Kharagpur Urban*	190	4940	4397	1544	72	0	190	190	10
Dantan-I	151	7145	8324	2645	56	18	110	33	96
Dantan-II	140	6205	5945	2552	78	20	81	5 <i>7</i>	51
Keshiary	377	6743	7300	2426	125	105	211	25	25
Narayangarh	301	13032	14270	4589	137	80	198	104	161
Jhargram	240	7314	6708	2912	157	85	200	26	66
Jamboni	204	4795	4771	1836	98	13	154	50	25
Binpur-I	398	7911	8032	2803	72	45	365	67	25
Binpur-II	417	8520	9658	2892	41	134	276	22	25
Sankrail	134	4113	4093	1617	159	20	81	40	48
Gopiballavpur-I	190	5295	6042	1650	36	15	163	81	25
Gopiballavpur-II	185	4814	4641	1679	75	15	135	52	25
Nayagram	354	7551	77730	2732	439	60	6	25	25
Ghatal	256	9535	8394	3201	58	172	161	56	76
Daspur-I	175	7412	6998	2513	37	144	141	104	85
Daspur-II	206	7777	7327	2896	14	127	163	128	72
Chandrakona-I	135	6068	6437	2177	19	56	123	30	74
Chandrakona-II	11 <i>7</i>	5531	5122	2002	35	41	17	16	5 <i>7</i>
Total	6771	223288	223552	80991	3033	1854	4490	1972	2013

<sup>\*</sup> In Kharagpur Urban project 40 AWCs are not running due to court case

Source:- District Programme Officer, ICDS, Paschim Medinipur

Out of the special interventions taken up in the district under ICDS, three are mentioned here:

#### A. Positive Deviance Programme

The Positive Deviance Programme was launched in the district on 1st October, 2007. The emphasis of the programme is to aware all sections of community, especially mothers, so that they can be well-equipped for combating the malnourishment of themselves as well as their children without receiving any support from outside. The programme has been named as 'KENO PARBO NA' (why we will not be able to do?). Introduction of social map, community growth chart, mother & child protection card and cohort-register are used for capacity buildings of the community people. Eight blocks (Binpur-I, Binpur-II, Jhargram, Jamboni, Salboni, Kharagpur-I, Keshiary and Narayangarh) have been brought under the programme with the help of 165 numbers of specially trained persons from Panchayat Raj Institutions, Anganwadi Centres and health set-up.

# B. Kishori Shakti Yojana

In order to better address concerns for the women and girl child it was necessary to design interventions for adolescent girls. Kishori Shakti Yojana (KSY) is aimed at breaking the intergenerational life-cycle of nutritional disadvantage and providing a supportive environment for self-development through income generation programme.

Intervention focuses on school drop-out girls in the age group of 11-18 years with the objectives to meet their needs of self-development, nutrition, education, literacy, recreation and skill formation. The programme, aimed to mobilize and enhance the potential of adolescent girls as social animators, has so far covered 5407 girls in the district.

## C. Organisation of Village Health and Nutrition Day in Anganwadi Centres

In all the Anganwadi Centres of the district in rural area Village Health and Nutrition Day is observed on fourth Tuesday from 11.00 AM to 1.00 PM with the objective of awareness generation and behaviour-change by dissemination of messages related to mother & child health care, personal health & hygiene, public health issues, communicable diseases etc. The target group includes pregnant women, nursing mothers and adolescent girls of the area concerned. The programme is receiving good response from the target groups and is expected to create a positive impact in a bigger way in future.

# **Drinking** water

A major part of the district is lateritic and drought-prone and in summer, water level goes down to a large extent. As a result good numbers of the shallow wells become dry from mid-summer. Even there are

Table 4.19 Number of schemes under various water supply programmes (upto September, 2009)\*

Programme	Piped water supply	Tubewell
Swajaldhara	35	Nil
RWS (MNP)	151	187
ARWSP (in 2007-2008)	220	89
ARWSP (in 2008-2009)	109	35
ARWSP (in 2009-2010)	194	Nil

<sup>\*</sup> Schemes are either operational or installation work is going on or sanction is awaited.

Source:- Executive Engineer, Public Health Engineering Department (Civil), Paschim Medinipur

places, specially in Jhargram, Medinipur Sadar & parts of Kharagpur Sub-division where situation starts to worsen from the onset of summer season and people are compelled to drink water from dug-wells and other sources. Habitation-wise, most of the habitations of the district are covered by tube well, either hand-bored or rigbored, but there are places where even rig-bore fails due to existence of hard rocks in the sub-soil. The district still lacks in achieving the norm of one tube well per 250 population and as stated earlier, there is season-wise variation in the availability of potable water in the rural areas with the advancement of summer as number of functioning tube wells reduces.

Only 8.83 per cent of the population of this District is covered under piped schemes for safe drinking water supply. However, other areas are mostly covered by tube well and even dug wells. But proper information on percentage of population actually getting the benefits of functional tube wells at Block or GP or Village level are lacking. This information gap needs to be solved so that the district can take proper steps to improve its coverage under safe drinking water schemes.

Coverage of population by piped water supply schemes is only 11.59 % up to July, 2009, which the district wants to take up to 75 % by the end of the year 2014. Except Swajaldhara schemes, in which the

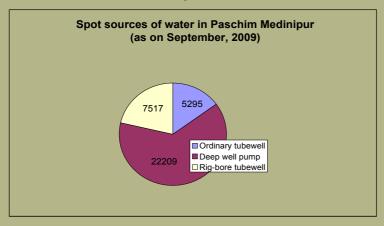
stakeholders contribute to the scheme financially for better involvement, piped water supply schemes and setting up of tube wells are running presently under the Rural Water Supply (Minimum Needs Programme) [RWS (MNP)] and Augmented Rural Water Supply Programmes [ARWSP]. Other funds received by the three-tier Panchayat bodies are also used for installation and repair of tube wells.

Table 4.20 Status of piped water supply schemes in Paschim Medinipur (as on September, 2009)

Number of sanctioned schemes	63
Number of commissioned schemes	47
Number of ongoing schemes	16
Rural population (in thousand) benefited by commissioned schemes	502.55
(10.98 % of rural population)	
Rural population (in thousand) to be benefited by sanctioned schemes (to be operational by March, 2010)	549 (12.70 % of rural population)
Villages covered by sanctioned schemes	382 (total village in the district:- 8701)

Source:- Executive Engineer, Public Health Engineering Department (Civil), Paschim Medinipur

Figure 4.4 Spot sources of water in Paschim Medinipur District as on September, 2009



Source:- Executive Engineer, Public Health Engineering Department (Civil), Paschim Medinipur So far as qualitative aspect is concerned, iron-content in drinking water is high in major part of the district, specially in laterite zones. Though iron-contamination does not affect instantly, but long-term measures need to be taken to prevent any future disease in areas of high iron-content. Fortunately, presence of fluoride in drinking water, which has direct negative impact on the body, has not been found in most part of the district. Only Jambani and Narayangarh have some positive cases with very low percentage.

#### **Sanitation**

An important area of intervention in the district is to provide sanitary facility at each household and at each corner of the district. This obviously reduces health hazards and at the same time ensures better standard of living of the people. More than a decade ago the district took a leading role in launching Total

Table 4.21 School Sanitation (up to July, 2009)

rable 4.21 School Samtation (up to July, 2003)								
Primary Schools								
Number of primary schools to be covered	4360							
Number of primary schools provided with first unit	4360							
Number of primary schools provided with first unit	499							
Junior High, Secondary, Higher Secondary Schools								
Number of schools to be covered	735							
Toilet block for girls student	638							
Toilet block for boys student	485							
Madrashas								
Number of Madrashas to be covered	12							
Toilet block for girls student	12							
Toilet block for boys student	12							
SSK								
Target	2459							
Achievement	2031							
ICDS								
Target	6477							
Achievement	2012							
MSK								
Target	230							
Achievement	213							

Source:- Executive Engineer, Public Health Engineering Department (Civil), Paschim Medinipur

Sanitation Campaign (TSC) in the State, but the district has not yet achieved to bring all the households under the coverage of sanitary facility. Awareness has obviously increased and a good number of Gram-Panchavats have been declared 'Nirmal Gram' as a certification of full coverage, but all the latrines set up are not being used by the owners. Considering the revised number of households as per Rural Household Survey as modified in 2009, the district has achieved 63.9 % progress in covering the entire household. The fact that a good number of people construct latrine on their own which has not been accounted in the above statistics, a fact which will enhance the percentage of coverage, still it can be said that we have a long way to go to reach total success.

Scarcity of water in the district, specially in laterite zones during summer, is a major cause for not using the latrines by the people. Another reason is that most of the villages in the backward Blocks of the district have adjacent forest area, which is another reason for this. Through awareness generation through the three-tier Panchayat system, self-help groups and other community based organizations, the district wants to achieve total success in the area.

So far as school sanitation is concerned, all the primary schools have been provided with one unit and some of these schools have received the second unit. Emphasis is now on setting up of

separate units for boys and girls in primary schools, progress of which is quite satisfactory. At the same time, coverage of all the Sishu Siksha Kendras (SSK), Madhyamik Siksha Kendras (MSK) & Anganwadi Centres (AWC) is another target. However, land-related problem has become a hindrance in some of these cases and most of the AWCs still do not have their own building. Also presently the district is taking up the work of construction of sanitary latrines at the time of construction of new building in these cases.

Table 4.22 Block-wise progress under Total Sanitation campaign (up to October, 2009)

Block	No. of househo Id*	Latrines constructed	Progress (in %)	Block	No. of household*	Latrines constructed	Progress (in %)
Garhbeta - I	50564	33556	66.4	Kharagpur - II	42804	24794	57.93
Garhbeta-II	28560	24213	84.8	Keshiray	38807	24406	62.9
Garhbeta - III	39567	25335	64.0	Narayangarh	76137	41225	54.1
Salboni	34833	31401	90.1	Dantan - I	35017	24486	69.9
Keshpur	62465	43549	69.7	Dantan - II	32841	19930	60.7
Midnapur Sadar	41420	25795	62.3	Mohanpur	31452	12236	38.9
Binpur-I	39855	28173	70.7	Debra	69673	33885	48.6
Binpur-II	37682	29685	78.8	Pingla	44622	25123	56.3
Jamboni	25526	19758	77.4	Sabang	65248	36556	56.0
Jhargram	36875	29056	78.8	Daspur-I	46637	21146	45.3
Gopiballavpur-I	19978	16090	80.5	Daspur -II	55410	23568	42.5
Gopiballavpur-II	21364	16314	76.4	Ghatal	48393	30821	63.7
Sankrail	24434	20259	82.9	Chandrakona-I	27072	18302	67.6
Nayagaram	32998	24186	73.3	Chandrakona-II	23635	16227	68.7
Kharagpur - I	34648	26137	75.4	District total	116851 <i>7</i>	746212	63.9

<sup>\*</sup>Number of households has been taken from Rural Household Survey as revised in 2009

Source:- Paschim Medinipur Zilla Parishad

#### 4.4 Health Indices for blocks of PASCHIM MEDINIPUR District

The last section has provided a detailed scenario of the status of health in the district as a whole and also across the blocks of the district. Given the information we shall try in this section to construct health indices across the blocks of the district following the methodology mentioned below.

**Methodology:** As has been observed in the last section, we have no data on life expectancy at birth across the blocks, nor we have any reliable data on infant mortality rate. We have some (and probably not complete) data on institutional delivery, but no reliable data on total delivery and so the proportion of institutional delivery in total delivery can not also be used with complete reliability. But within the data of total delivery the number of birth of babies with low birth weight (LBW) being reliable, the proportion of the LBW babies in total live births can be used as a negative indicator of child health. A more reliable inverse indicator of child health is the proportion of malnourished children in the age group 0 to 6 years covered by the ICDS project and we shall use it for the construction of child health indices of the blocks. Another indicator of child health is the percentage of babies who has undergone complete immunization process. It is not only the indicator of child health; it is also the indicator of health of the future generation. These two rates are combined for arriving at the child health index for the blocks in Paschim Medinipur.

Table 4.23 Indicators in the development in Health for the blocks of Paschim Medinipur District

Sub-division	Block	% of Malnouri- shed Children	100-% of Malnutrition	% of Full Immunisation	% of Persons having 2 and sometimes	100 - % of Adult Malnutrition
					< 2 meals per day	
	Chandrakona-I	29.75	70.25	81.85	46.93	53.07
Ghatal	Chandrakona-II	32.65	67.35	84.60	40.69	59.31
	Daspur-I	32.52	67.48	79.81	26.11	73.89
	Daspur-II	20.34	79.66	83.44	21.04	78.96
	Ghatal	38.35	61.65	80.44	37.30	62.70
	Binpur-I	38.80	61.20	61.20 81.59		41.34
	Binpur-II	42.62	57.38	62.75	65.78	34.22
	Gopiballavpur-I	35.97	64.03	84.58	63.76	36.24
Jhargram	Gopiballavpur-II	40.53	59.47	75.19	56.71	43.29
	Jamboni	44.94	55.06	76.99	73.10	26.90
	Jhargram	37.55	62.45	71.73	57.61	42.39
	Nayagram	51.92	48.08	67.33	80.30	19.70
	Sankrail	40.67	59.33	75.24	58.23	41.7
Kharagpur	Dantan-I	40.33	59.67	75.12	56.84	43.16
	Dantan-II	41.75	58.25	92.68	60.70	39.30
	Debra	31.21	68.79	81.62	36.58	63.42
	Keshiary	41.80	58.20	73.72	64.75	35.25
	Kharagpur-I	40.28	59.72	79.76	59.40	40.60
	Kharagpur-II	40.33	59.67	69.31	52.75	47.25
	Mohanpur	38.88	61.12	87.03	61.29	38.71
	Narayangarh	34.98	65.02	86.68	53.64	46.36
	Pingla	37.87	62.13	86.53	56.03	43.97
	Sabong	38.02	61.98	74.62	56.44	43.56
	Garhbeta-I	37.73	62.27	73.69	43.50	56.50
	Garhbeta-II	36.80	63.20	74.53	44.60	55.40
Medinipur	Garhbeta-III	30.08	69.92	64.67	37.51	62.49
Sadar	Keshpur	35.78	64.22	77.34	50.89	49.11
	Medinipur	38.36	61.64	56.91	56.35	43.65
	Salboni	36.17	63.83	87.76	47.00	53.00
Ghatal Sub-division		31.32	68.68	81.83	32.51	67.49
Jhargram :	Sub-division	41.68	58.32	73.73	64.20	35.8
Kharagpu	r Sub-division	38.10	61.90	80.54	54.39	45.61
Medinipur Sub-division		36.41	63.59	71.24	47.25	52.75
Paschim Medinipur District		37.53	62.47	77.02	50.93	49.07

Source:- Chief Medical Officer of Health, Paschim Medinipur

Before combining, they are normalized to the index values by using normative goalposts at 0 (0 %) and 1 (100 %), and not by using observed goalposts at observed minimum and observed maximum, to reflect the amount of actual achievement and the amount yet to be achieved. Equal weights are given in the combination. Status of adult health can be negatively measured by occurrence of different types of diseases and directly by the facilities available for their treatment or by the extent of actual treatment. In developing countries like India malnutrition is more severe a disease that requires hospital treatment and thus Malnutrition can be used as a very good negative indicator of adult health. Extent of malnutrition as per the findings of the Rural Household Survey 2005 is used as the relevant indicator of adult health and the percentage of persons having two and sometimes less than two meals per day in the whole year in total estimated persons in 2005 is used as the actual indicator. After normalizing in the same way, this index is combined with the index of child health with equal weights to arrive at the final health index for the blocks.

#### Health Indices for the Blocks of PASCHIM MEDINIPUR District:

Basic data for the construction of the Health Indices are presented in Table 4.24. It presents the data on percentage of malnourished children in the age group 0-6 years, percentage of children in the age group 0-1 year who has undergone the full immunization programme and the percentage of persons having sometimes less than two meals per day. Data on malnourishment is available under moderate and severe categories. To have a representative figure, severe malnourishment has been given 100% weight and moderate malnourishment has been given 50% weight. Percentage of malnourished children is a negative indicator of development and we have considered 100 minus this percentage as the indicator of development. The table shows that the percentage of malnourished children is highest in Nayagram (51.92%) followed by Jamboni and Binpur-II. It is lowest in Daspur-II (20.34%) followed by Chandrakona-I, Garhbeta-III and Debra. The average figure for the district is 37.53%. Low malnourishment in the otherwise less developed blocks like Garhbeta-III and Chandrakona-I may be partly due to natural physical health of the people and their babies in these areas and partly due to the consciousness of the people in this aspect.

Percentage of immunized babies is highest in Dantan-I (92.68%) followed by Salboni, Mohanpur, Narayangarh and Pingla and is lowest in Midnapore (56.91%) followed by Binpur-II, Garhbeta-III and Nayagram. These figures are partly due to differential initiatives on the part of the government and non-government organizations in this field and partly due to the consciousness of the people in this aspect.

Table 4.24 Dimension Indices and the Health Index for the blocks of Paschim Medinipur District

	24 Difficilision							asemin	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<b>JUI D</b> 101	1
Sub- division	Block	Child Non- Malnu- trition Index	Rank	Full Immun- ization Index	Rank	Child Health Index	Rank	Adult Non- Malnut- rition Index or Adult Health Index	Rank	Health Index (HI)	Rank (HI)
	Chandrakona-I	0.703	2	0.819	9	0.761	2	0.531	9	0.646	7
Ghatal	Chandrakona-II	0.673	6	0.846	6	0.760	3	0.593	6	0.676	4
	Daspur-I	0.675	5	0.798	13	0.736	11	0.739	2	0.738	2
	Daspur-II	0.797	1	0.834	8	0.815	1	0.790	1	0.803	1
	Ghatal	0.617	16	0.804	12	0.710	13	0.627	4	0.669	5
	Binpur-I	0.612	18	0.816	11	0.714	12	0.413	21	0.564	16
	Binpur-II	0.574	27	0.628	28	0.601	27	0.342	27	0.471	27
	Gopiballavpur-I	0.640	9	0.846	7	0.743	9	0.362	25	0.553	21
Jhargram	Gopiballavpur-II	0.595	23	0.752	18	0.673	20	0.433	17	0.553	19
	Jamboni	0.551	28	0.770	16	0.660	24	0.269	28	0.465	28
	Jhargram	0.625	12	0.717	24	0.671	23	0.424	19	0.547	23
	Nayagram	0.481	29	0.673	26	0.577	29	0.197	29	0.387	29
	Sankrail	0.593	24	0.752	17	0.673	22	0.418	20	0.545	24
	Dantan-I	0.597	21	0.751	19	0.674	19	0.432	18	0.553	20
	Dantan-II	0.582	25	0.927	1	0.755	6	0.393	23	0.574	14
	Debra	0.688	4	0.816	10	0.752	7	0.634	3	0.693	3
	Keshiary	0.582	26	0.737	22	0.660	25	0.353	26	0.506	26
Kharagpur	Kharagpur-I	0.597	20	0.798	14	0.697	15	0.406	22	0.552	22
	Kharagpur-II	0.597	21	0.693	25	0.645	26	0.473	12	0.559	18
	Mohanpur	0.611	19	0.870	3	0.741	10	0.387	24	0.564	15
	Narayangarh	0.650	7	0.867	4	0.759	4	0.464	13	0.611	11
	Pingla	0.621	14	0.865	5	0.743	8	0.440	14	0.591	13
	Sabong	0.620	15	0.746	20	0.683	1 <i>7</i>	0.436	16	0.559	17
	Garhbeta-I	0.623	13	0.737	23	0.680	18	0.565	7	0.622	9
	Garhbeta-II	0.632	11	0.745	21	0.689	16	0.554	8	0.621	10
Medinipur	Garhbeta-III	0.699	3	0.647	27	0.673	21	0.625	5	0.649	6
Sadar	Keshpur	0.642	8	0.773	15	0.708	14	0.491	11	0.599	12
	Medinipur	0.616	17	0.569	29	0.593	28	0.437	15	0.515	25
	Salboni	0.638	10	0.878	2	0.758	5	0.530	10	0.644	8
Ghatal Sub-division		0.687	1	0.818	1	0.753	1	0.675	1	0.714	1
Jhargram S	Sub-division	0.583	4	0.737	3	0.660	4	0.358	4	0.509	4
Kharagpur	Sub-division	0.619	3	0.805	2	0.712	2	0.456	3	0.584	3
Medinipur	Medinipur Sub-division		2	0.712	4	0.674	3	0.528	2	0.601	2
Paschim M	edinipur District	0.625	-	0.770	-	0.697	-	0.491	-	0.594	-

#### Status of Helth

Percentage of persons not always having 2 meals per day is lowest in Daspur-II (21.04%) followed by Daspur-I, Debra and Ghatal and it is highest in Nayagram (80.30%) followed by Jamboni, Binpur-II, Keshiary and Gopiballavpur-I.

Indices based on normative goalposts for these three indicators along with child health index, adult health index and combined health index are presented in Table 4.25. It shows that the health index is highest in Daspur-II (0.803) followed by Daspur-I (0.738) and Debra (0.693), and is lowest in Nayagram (0.387) followed by Jamboni (0.465) and Binpur-II (0.471).

The implications of the results are straight forward. They imply that Daspur-II has been succeeded to attain a 80.30% development in health and the remaining 19.70% is yet to be achieved and the success is due to its achievement to the tune of 79.66% in child non-malnutrition, 83.44% in immunisation and 78.96% in adult non-malnutrition. On the other hand, in the block Nayagram, the attainment in health is only 38.70% and though the immunization rate and the percentage of non-malnourished children in this block are not very low (they are at 67.33% and 48.08% respectively) the ultimate attainment remains low for its low percentage of adult non-malnourishment which is at 19.70% only. If we look at the subdivisions, we find that the attainment in health is highest in Ghatal sub-division (71.40%) and lowest in Jhargram sub-division (50.90%). The said index for all the blocks of Paschim Medinipur district taken together is 0.594. This implies that the rural areas of Paschim Medinipur district have attained 59.40% success in health (a less than 2/3rd success) and the remaining 40.60% is yet to be achieved.

Radar for different blocks of Paschim Medinipur District with different indicators of development in health

In the radar presentation of development in health we have considered three other indicators along with Child Non-Malnutrition Index, Full Immunisation Index and Adult Non-Malnutrition Index. The indicators as shown in the radars are:

- (1) ChNonMal = Child Non-Malnutrition Index
- (2) Fulmmun = Full Immunisation Index
- (3) AdNonMal = Adult Non-Malnutrition Index
- (4) NonLBW = Non- Low Birth Weight Index
- (5) InsDel = Institutional Delivery Index
- and (6) Sanit = Sanitation Index

# **Radar for Blocks of Ghatal Sub-division**

Figure 4.5

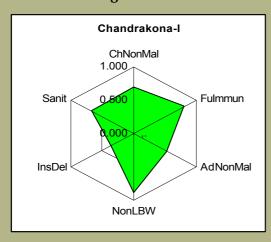


Figure 4.7

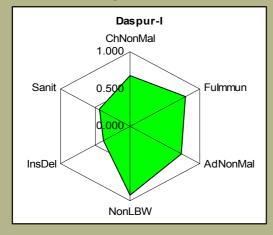


Figure 4.6

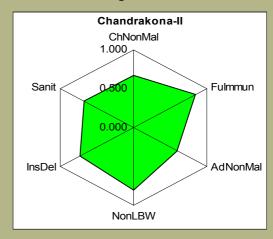


Figure 4.8

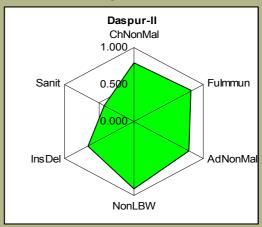
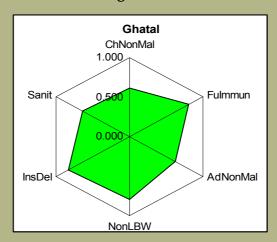


Figure 4.9



# **Radar for Blocks of Jhargram Sub-division**

**Figure 4.10** 

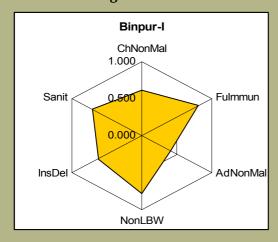


Figure 4.12

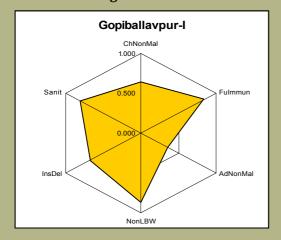


Figure 4.14

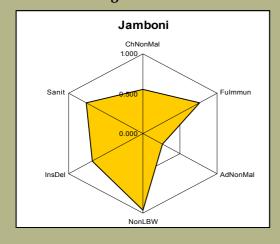
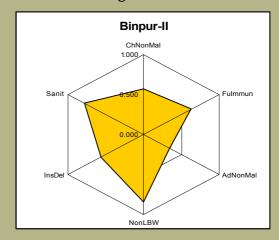
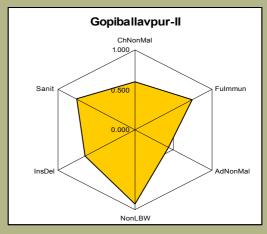


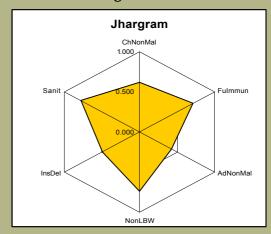
Figure 4.11



**Figure 4.13** 

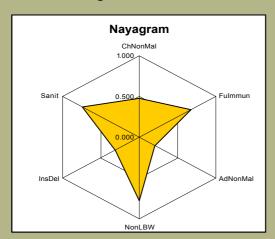


**Figure 4.15** 

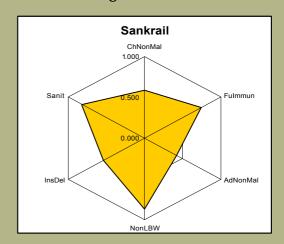


# Human Development Report Paschim Medinipur

**Figure 4.16** 



**Figure 4.17** 



**Radar for Blocks of Kharagpur Sub-division** 

Figure 4.18

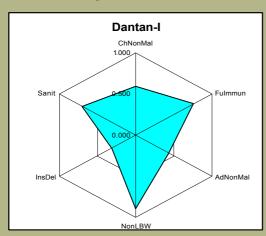
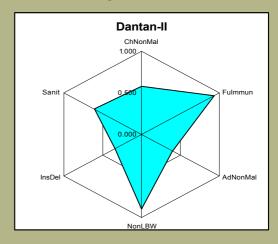
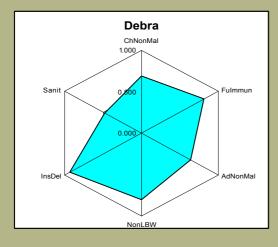


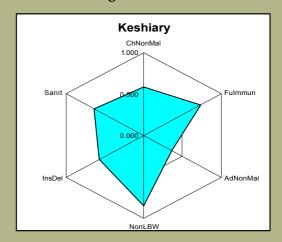
Figure 4.19



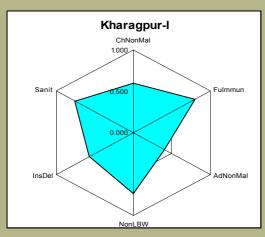
**Figure 4.20** 



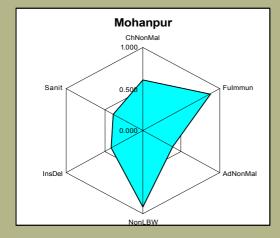
**Figure 4.21** 



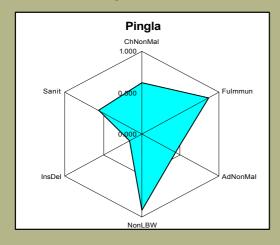
**Figure 4.22** 



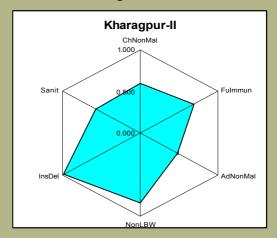
**Figure 4.24** 



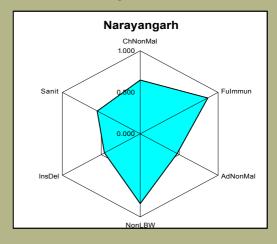
**Figure 4.26** 



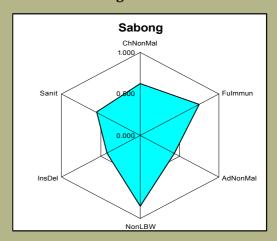
**Figure 4.23** 



**Figure 4.25** 

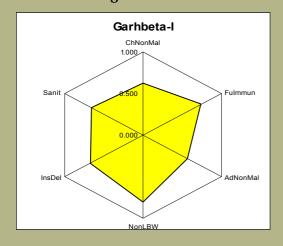


**Figure 4.27** 

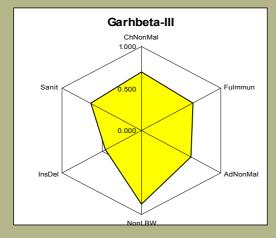


#### **Radar for Blocks of Ghatal Sub-division**

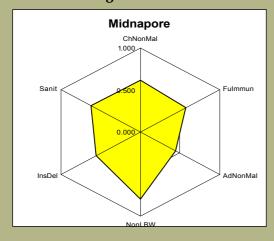
Figure 4.28



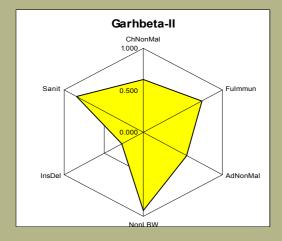
**Figure 4.30** 



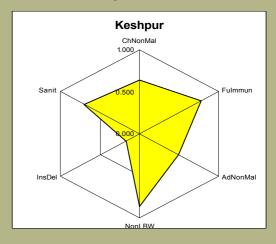
**Figure 4.32** 



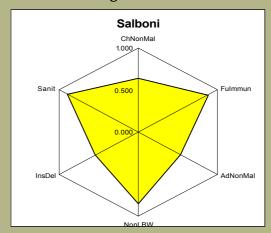
**Figure 4.29** 



**Figure 4.31** 



**Figure 4.33** 



# CHAPTER - V ECONOMIC LIVELIHOODS



# Chapter - V Economic Livelihoods

#### 5. 1 Introduction:

In recent years, while major accent is made on economic growth for socio-economic development of a country or a region based on the assumption that benefits of economic growth would percolate to the lowest ranks of the society (Smith 1776). It is experienced in developing countries including India that the benefits of economic growth hardly percolate to the ecologically disadvantaged region and to the common masses who constitute the bottom in the development ladder (Haq 1976; Dandekar and Rath 1971; Dantewala1973; Lehman 1974). Hence, along with economic growth, creation of livelihood / employment opportunities is essential and in this context, the issues concerning economic livelihoods with equitable growth have gained much importance.

According to The Random House Dictionary livelihood implies means of subsistence. It refers to the capabilities, assets and strategies that people use to make a living; that is, to earn enough money to support themselves and their families through a variety of economic activities. Economic livelihoods are closely associated with economic activities. The goal of any livelihoods strategy is to develop self-reliance.

Ellis (2000) defines a livelihood as comprising the assets, the activities and the access to these that together determine the living gained by an individual or household. Household assets are defined broadly to include nature, physical, human, financial, public, and social stocks, which may depreciate over time or be expanded through investment.

A Statistical Account of Bengal Medinipur written by Hunter (1921) reveals that Medinipur district during the early 1920s was predominantly rural and agricultural with small percentage of persons engaged in government and local authorities, professions and personal services, industries and trade and commerce. Occupations of males were classified into seven categories, namely (i) services under government, municipal or other local authorities, (ii) professional services, (iii) personal services, (iv) agriculture and livestock, (v) commerce and trade, (vi) mechanical arts, manufactures and engineering operations and sale of goods manufactured or prepared for consumption and miscellaneous workers. Females were not engaged in (ii) and (ii).

During the post-Independence period, particularly during the last thirty years substantial transformation of the economy and society of the district has taken place and economic livelihood pattern has undergone significant change in Paschim Medinipur. There is wide variation in employment / work opportunities among the blocks of the district, which is explained by historical, environmental, demographic, cultural, economic and institutional factors.

Objectives of the chapter: Against this brief backdrop the present chapter on economic livelihoods analyses various issues concerning economic livelihoods of the people of the district. Broad three-fold objectives of the chapter are:

- a) To examine economic livelihood pattern of people and its dynamics in the district,
- b) To construct economic livelihood index for the district,
- c) To analyse the variation in economic livelihood index across the district.

Approach to economic livelihoods: We adopt production / activity approach to economic livelihoods in which economic activity/ production generates employment and income and thus livelihood opportunities.

We study resources available, particularly natural and infrastructural and their distribution, economic activities/ production and income in economic sectors, workforce, government intervention in the form of rural development programmes including Swaranajayanti Gram Sarojgar Yojana (SGSY) and National Rural Employment Guarantee Scheme (NREGS) on living conditions of people, and the questions of food, shelter and poverty, livelihood strategies adopted by the households, economic livelihood indicators and finally construct economic livelihood index along with ranking of blocks.

Database and Methodology: Both, secondary data and primary data have been used to analyse economic livelihoods of the people of the district. Census of India provides the major database of the study. It gives a time series data on human resources for regions of the country. Data on the level and structure of the workforce are available from this source at the district level and below, which the National Sample Survey data do not provide. The basic limitation of the Census data is that there are frequent changes in the definitions and concepts, which make the data non-comparable over fairly long time (Unni 1991). The 1961 Census used the 1958 Indian Standard Industrial Classification, while 1971, 1981 and 1991Censuses used National Industrial Classification (NIC), 1971. Since these classifications are not directly comparable (Basant and Kumar 1990), 1861 data are not comparable with 1971, 1981 and 1991 data. However, 1971, 1981 and 1991 data are comparable within themselves (Krishnaraj and Deshmukh 1990). Census 2001 has published data on industrial classification of workers with break up of main and marginal workers, which are comparable with 1991 data on industrial classification of main workers and marginal workers separately.

Though Census of India gives time series data on economic livelihoods of people, it suffers from several limitations, particularly in respect of coverage, timeliness and reliability. From this source we have data on workers - main and marginal - which are summed up to yield total workers, which is important from the population perspective.

But, this classification of workers into main and marginal workers needs economic interpretation, particularly from the working days and earning or income standpoint. Census of India defines main workers as those who have worked for the major part of the year preceding the date of enumeration, i.e., those who have been engaged in any economically productive activity for 183 days (or six months). Marginal workers are those who have worked any time at all in the year preceding the date of enumeration but did not work for the major part of the year, i.e., those who worked for less than 183 days (or six months). Since livelihood is concerned with level and quality of living of people, main and marginal workers data from Census of India cannot be summed up to yield total workers since these two categories as regards working days and earnings are different. Hence, some transformation of marginal workers into full workers is essential from the economic livelihood perspective to make the data equivalent and uniform and to reflect level of living of people.

Main workers work for 6 months to 12 months or on the average 9 months in a year while marginal workers work from one day to six months, i.e., on the average 3 months in a year under the assumption of a uniform frequency distribution. But the actual distribution is uni-modal like Normal distribution with the peak at or around 6 months. Under this condition the said average for main workers can be taken at 8 months while that of marginal workers at 4 months in the reference year. In other words, marginal workers are taken to work for 50 per cent of mandays worked by main workers. On this basis we estimate total number of main workers adjusted in the following way.

Total main workers adjusted = main workers + marginal workers multiplied by 0.5.

Besides using Census of India we have also used District Statistical Handbook, Paschim Medinipur that provides useful data on economic activities like agriculture, manufacturing and services. Offices dealing with sectoral development of the economy district have also provided us with some useful current data but those are also not adequate. Different research works and projects conducted on impact of different rural development programmes in Paschim Medinipur district have been relevant to our study on economic livelihoods. Department of Economics with Rural Development, Vidyasagar University conducted a research project sponsored by Land Use Board, Planning and Development Department, Government of West Bengal where a large survey of 1020 households in three villages - one each from Jhargram, Jamboni and Nayagram blocks that are laterite soil and relatively backward blocks - was made. The Report of the project is also useful for our study. We have also conducted a field survey of 300 households in 15 villages of 15 blocks of the district - that gives us some current data though those are collected on small sample basis (20 households from each village). The recent research project on Access to Rural Credit in Paschim Medinipur district with Particular Reference to Self Help Groups as sponsored by the District Rural Development Agency, Paschim Medinipur District has also generated data which are useful in respect of economic livelihoods of people. These primary data help us supplement the secondary data and make conclusions based on updated data analysis.

**Organisation of the chapter:** The rest of this chapter is organized as follows.

Section 5.2 examines growth and structural changes in the economy of Paschim Medinipur district and Section 5.3 does so at the block level. Section 5.4 analyses the impact of different rural development programmes on employment, income, shelter and poverty. Section 5.5 presents livelihood strategies at the household level based on field survey. Section 5.6 deals with different economic livelihood indicators, constructs economic livelihood index and analyses its variation across the district. 5.7 summarises the earlier discussion and makes concluding observations.

#### 5.2. Growth and Structural Changes in the Economy of Paschim Medinipur District

#### 5.2.1 Growth of agriculture and agri-allied sector:

In the district gross cropped area recorded 2.94 per cent growth during 2001 to 2007-08 and net cropped area and foodgrains area recorded growth around 1 per cent. Foodgrains production experienced above 3 per cent growth, and oilseeds area and production recorded above 10 per cent growth per annum and fruits area about 40 per cent. Per capita foodgrains production growth in the district has been above 3 per cent. Potato area and production has recorded a growth of 7.13 per cent and 5.77 respectively during this period. The growth rate of agricultural area and production has been calculated based on time series data constructed by the moving average method (Table 5.1).

**Table 5.1 Agricultural Development in Paschim Medinipur District** 

(Area in '000 ha., production in '000 tonne and productivity in kg. per ha.)

Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Annual growth rate (%)
Gross cropped Area	778.64	900.80	914.20	922.60	931.90	966.70	938.60	2.94
Net cropped area	486.40	545.30	565.28	552.10	551.70	555.60	558.70	2.12
Cropping Intensity	160.00	1650	162.00	167.00	169.00	174.00	168.00	0.71
Foodgrains Area	591.10	663.60	673.10	675.30	674.10	706.30	662.80	1.73

Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Annual growth rate (%)
Foodgrains Production	1481.70	1576.20	1538.90	1767.30	1652.70	1819.30	1820.80	3.27
Oilseeds area	55.20	65.50	77.80	86.00	84.60	96.40	107.50	13.54
Oilseeds production	49.50	56.80	76.50	78.40	79.60	99.40	128.30	22.74
Potato area	47.10	67.00	61.10	56.70	71.30	79.40	70.60	7.13
Potato production	1335.40	1841.8	1547.50	1268.70	1519.60	843.70	1874.40	5.77
Fruits area	2.84	3.30	3.80	3.90	4.10	11.30	11.40	43.06
Vegetables area	50.29	52.20	43.90	45.30	43.80	43.90	46.90	-0.96
Per capita foodgrains Production (kg)	285.30	303.50	296.32	340.30	318.23	350.31	350.60	3.27
Foodgrains Productivity	2506.68	2375.23	2286.29	2617.06	2458.00	2576.00	2747.00	1.37
Oilseeds Productivity	896.74	867.18	983.29	911.63	940.90	1031.12	1194	4.74
Potato productivity	28352.44	27489.55	25327.33	22375.66	21312.76	10625.94	26529	-0.92

Sources: Government of West Bengal, Statistical Abstract and District Statistical Handbook Paschim Medinipur

Figure 5.1 presents line diagram on area under oilseeds, potato, fruits and vegetables, Figure 5.2 presents on net cropped area and foodgrains area, and Figure 5.3 also presents productivity of foodgrains and oilseeds.

Figure 5.1 Area under Oliseeds, Potato, Fruits and Vegetables

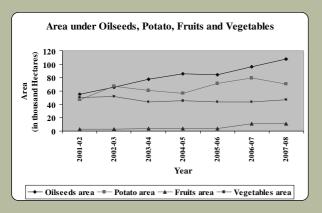


Figure 5.2 Net Cropped Area and Foodgrains Area

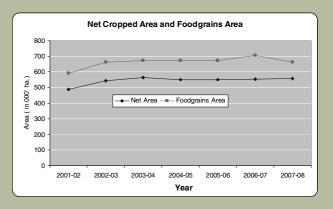
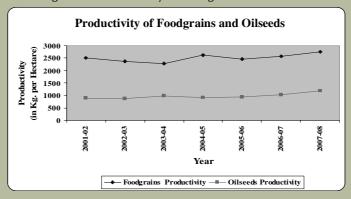


Figure 5.3 Productivity of Foodgrains and Oilseeds



#### **Sources of Agricultural Growth**

Growth of agricultural production and productivity in the district is attributed to institutional and technological factors. Land ownership is expected to be closely linked to agricultural production, including both crop and livestock production. Land reforms measures undertaken since the late 1970s and extension of irrigation, particularly minor irrigation have led to significant rise in gross cropped area and area under foodgrains, oilseeds and fruits, and agricultural productivity has substantially increased, which are also attributed to greater use of fertilizers and other modern agricultural techniques. All these have significant impact on the living conditions of the rural mass in the district. The detail is given in Table 5.2.

Table 5.2 Estimated Number and Area of Operational Holdings according to Size Class in Paschim Medinipur District, 2005-06

(Area in Hectare)

District	Marginal		Small		Semi-medium		Medium	
District	(below 1.0)		(1.0-2.0)		(2.0-4.0)		(4.0-10.0)	
	Number	Area	Number	Area	Number	Area	Number	Area
1	2	3	4	5	6	7	8	9
Paschim Medinipur	596913 (84.89)	307916 (60.14)	83787 (11.92)	137067 (26.77)	21025 (2.99)	59329 (11.59)	1386 (0.20)	6505 (1.27)

(Table 5.2 continued)

	10			11	12	
District	Large (10.	0-Above)	All Size		Average size of holding area	
	Number	Area	Number	Area		
Paschim Medinipur	18 (0.003)	1164 (0.23)	703129 100.00)	511981 (100.00)	0.73	

Source: Agricultural Census, 2000-01, Government of West Bengal

Area of vested agricultural land distributed recorded increase by 16 per cent during 2002 to 2006 and number of beneficiaries belonging to SCs and STs accounted for about 56 per cent during this period in this district (Table 5.3).

Table 5.3 Area of Vested Agricultural Land Distributed and Number of Beneficiaries in Paschim Medinipur District, 2002 to 2006

Upto	Area under		Number of beneficiaries					
	land distributed	Scheduled	Scheduled	Others	Total			
	(hectare)	Castes	Tribes					
30.09.2002	80695	178826	157996	258435	595257			
	(100)	(30.04)	(26.54)	(43.42)	(100.00)			
30.09.2003	91425 (113)	183569 (29.54)	159940 (25.74)	277941 (44.72)	621450 (100)			
30.11.2004	91936 (114)	177864 (28.12)	161405 (25.52)	283306 (44.79)	632575 (100.00)			

Upto	Area under		Number of beneficiaries					
	land distributed (hectare)	Scheduled Castes	Scheduled Others Tribes		Total			
30.11.2005	93051	191266	165266	286568	643100			
	(115)	(29.74)	(25.70)	(44.56)	(10.00)			
30.11.2006	93634	202989	167867	289133	659989			
	(116)	(30.76)	(25.43)	(46.81)	(100.00)			

Note: Figures within parentheses indicate percentage share to total. Source: Land & Land Reforms Department, Government of West Bengal

Irrigation is the most important basis for reliable production in agriculture. Area irrigated by government canals in Paschim Medinipur district registered fluctuations during 2001-02 to 2006-07 - a declining trend from 142.15 thousand hectares in 2001-02 to 66.11 thousand hectares and then a sudden jump to 153.87 thousand hectares in 2005-06 and then small increase to 160.70 thousand hectares in 2006-07. This is primarily due to the erratic rainfall and leaving lesser storage in reservoirs.

Area irrigated by MDTW recorded appreciable increase during the whole period while that by other sources recorded marginal change. Total irrigated area in the district under the influence of canal irrigation also showed fluctuations registering decline from 381.47 thousand hectares in 2001-02 to 299.19 thousand hectares in 2004-05 to register a quantum jump to 391.78 thousand hectares in 2005-06 and then a small increase to 428 thousand hectares in 2006-07. The detail is given below in Table 5.4.

Year	Govt. canal	Tank	HDTW	MDTW	LDTW	STW	RLI	ODW	Others	Total Irrigated	Percentage of Irrigated Area to Gross cropped Area
2001-02	142.15	26.38	8.26	20.71	*	114.6	14	8.35	47.02	381.47	48.99
2002-03	108.28	22.09	8.11	18.52	0.52	132.39	16.52	9.64	29.24	345.31	39.06
2003-04	90.71	24.7	8.59	22.97	0.59	112.93	15.69	9.91	37.7	323.79	37.21
2004-05	66.11	24.7	8.59	22.97	0.59	112.93	15.69	9.91	37.7	299.19	32.43
2005-06	153.87	24.7	8.59	22.97	0.59	113.07	15.69	9.85	42.45	391.78	42.04
2006-07	160.70	25.31	8.18	31.76	0.54	133.37	15.94	10.57	41.75	428.12	44.29

Notes: \*= included with MDTW, HDTW = High Capacity Deep Tubewell, MDTW = Middle Capacity Deep Tubewell, LDTW = Low Capacity Deep Tubewell, STW = Shallow Tubewell, RLI = River Lift Irrigation, and ODW = Open Dug Well.

Source: District Statistical Handbook, Paschim Medinipur

Table 5.5 Number of Sources of Irrigation in Paschim Medinipur District, 2002-03 to 2006-07

Year	Tank	HDTW	MDTW	LDTW	STW	RLI	ODW	Others
2002-03	39797	313	2819	34	52713	388	11411	960
2003-04	40245	311	2988	29	47629	393	13279	1249
2004-05	40245	311	2988	29	47629	393	13279	1252
2005-06	40245	311	2989	29	47664	393	13279	1697
2006-07	40401	344	3738	36	46861	384	14226	1650

Source: District Statistical Handbook, Paschim Medinipur

The importance of fertilizer in modern agriculture can not be over- emphasized. Total fertilizer consumption in the district registered marginal decline from 86.2 thousand tonnes in 2001-02 to 84.5 thousand tonnes during 2005-06. Total fertiliser consumption in the district registered marginal decline from 86.2 thousand tonnes to 84.5 thousand tonnes during 2001-02 to 2005-06 while fertilizer consumption per hectare dropped from 110.71 kg to 85.09 kg (Table 5.6).

Table 5.6 Fertilizer Consumption in Paschim Medinipur District, 2001-02 to 2006-07

('000 Tonnes)

Year	N	P	К	Total (N+P+K)	Gross cropped area (GCA) (thousand hectares)	Fertiliser consumption per hectare of GCA (Kg)
2001-02	47.50	22.50	16.20	86.20	778.64	110.71
2002-03	43.30	23.00	15.00	81.30	900.80	91.97
2003-04	43.10	21.10	14.00	78.20	914.20	89.87
2004-05	45.70	22.50	18.20	86.40	922.60	93.65
2005-06	44.00	24.60	15.90	84.50	931.90	85.09
2006-07	55.60	36.20	27.70	119.50	966.70	123.62

Notes: N = Nitrogen, P = Phosphate, K = PotashSource: District Statistical Handbook, Paschim Medinipur

Small farmers, especially in poor countries, use sub- optimal amounts of fertilizer for a number of reasons. First, they are often not fully aware of the importance of fertilizers in raising output. Secondly, even if they are, they often do not have access to the necessary credits to buy them. Thirdly, they tend to operate on the margins of subsistence, so they are often not willing to take the risk of spending money for fertilizers - they are not sure that they will eventually earn enough money to recoup the costs, especially when the lack of irrigation makes output dependent on the vagaries of the weather. Fourthly, they often do not take into account the long-term implications of adequate fertilizer use in maintaining soil fertility, at least partly out of the short time horizon that poverty brings.

#### Credit

Due to the seasonal nature of agricultural activities, farmers have highly variable flows of incomes and expenditures. For small farmers with little capital, therefore, the availability of credit is crucial in smoothly managing the production and indeed the consumption process. If they are to raise productivity, credits are even more necessary, as that often requires buying more marketed inputs (e.g., fertilizers, machinery) and possibly investing in infrastructure (e.g., digging wells).

However, small farmers have huge difficulties in getting access to credits. They are exposed to high risks due to things like their dependence on rainfall, exposure to crop and animal diseases (and low availability of preventive measures and cures for them), and poor health (themselves and their family members). Moreover, it is expensive to provide financial services in the rural areas because of poor transportation and communications. Consequently, the private sector financial institutions (if they are there) often refuse to serve the rural areas.

All this means that local moneylenders are able to exploit their monopolistic positions and charge the small farmers usurious interest rates. Moreover, these moneylenders often have monopoly and monopsony positions in other markets - they are often local landlords, the grain merchants, and oligopolistic suppliers of marketed inputs, all at the same time. This enables them to maximize their profits by manipulating the terms of market.

#### **Institutional Credit**

There is a great dearth of institutional credit mechanisms to reach the people across the district. Amount of outstanding credit advanced by scheduled commercial banks to agriculture sector in per capita basis in Paschim Medinipur District in 2007 was Rs.16.46 - direct finance being Rs.14.72 and indirect finance Rs.1.74. Percentage of agricultural credit to total bank credit in this year was 36 (Table 5.7).

Table 5.7 Amount of Outstanding Credit Advanced by Scheduled Commercial Banks to Agriculture by Type in Paschim Medinipur District, 2007

Туре	Advances (Rs. lakh)	Number of Cultivators	Advance per cultivator	Total bank credit (Rs. lakh)	Percenage of agricultural credit to total bank credit
Direct finance	94.07	6.39	14.72	288.21	32.64
Indirect finance	11.13	6.39	1.74	288.21	3.86
Total	105.19	6.39	16.46	288.21	36.5

Source: Reserve Bank of India, Basic Statistical Returns

Farmers' access to institutional (particularly nationalized banks) credit is largely detrmined by proportion of credit actually advanced by commercial banks to their targets as shown in their annual credit plans. Commercial bank credit actually advanced to agriculture across the district is low in relation to target. An overview of credit flow by agency in Paschim Medinipur district shows that banking institutions as a whole in their crop loan achieved, 35.44 per cent of the target they fixed in 2006-07, which however increased to 46.09 per cent in 2007-08 and 79.75 per cent in 2008-09. In term loan for agriculture also achievements of the banking institutions in relation to targets improved during this period.

#### Warehousing

One tool of price stabilization is the provision of warehousing facilities. Most poor farmers need to sell their products soon after the harvest, thus flooding the market and causing the price to crash. This is largely because they have little financial reserves to allow them to wait until they can get better prices. However, even the ones that have some financial reserves may have to sell soon after the harvest, if they do not have places to store their produce. If the farmers can store their products and sell them more gradually, not only will their incomes be more stable, but their average incomes may become higher. In Paschim Medinipur district number of warehouses increased from 8 in 2001-02 to 12 in 2006-07 thereby increasing their capacity from 12310 mt to 14705 mt during this period. Number of cold storage facilities increased from 52 to 57 leading to the increase in their capacity from 851975 mt to 938850 mt. during this period. Number of cultivators benefitted recorded increase from 7.36 lakh to 9.00 lakh during the same period (Table 5.8).

Table 5.8 Warehousing and Cold Storage Facilities Available to Cultivators in Paschim Medinipur District, 2001-02 to 2006-07.

Year	Warehouse		Cold	storage	Number of cultivators	Index
	Number	Capacity (MT)	Number	Capacity (MT)	benefited	
2001-02	8	12310	52	851975	735500	100
2002-03	15	15124	53	884691	100000	136
2003-04	10	14505	51	851975	786400	107
2004-05	12	14705	54	885548	805920	110
2005-06	12	14705	54	885540	805922	110
2006-07	12	14705	57	938850	900000	122

Source: District Statistical Handbook, Paschim Medinipur

Agri-allied sector has recorded impressive development in terms of increase in forest area, milk and egg production and livestock population. Total number of poultry recorded an increase of 3.08 per cent per annum while cattle 1.36 per cent and buffaloes '- '2.66 (Table 5.9).

Table 5.9 Forest area, Milk and Egg Production, Cattle, Buffaloes and Poultry, 2001-02 to 2005-06

Category	2001-02	2002-03	2003-04	2004-05	2005-06	Annual growth rate (%)
Forest area (in Hectare)	171740.70	176822.60	175296.50	174762.20	174507.30	0.40
Milk production (thousand tonnes)	189	197	197	201	205	2.12
Egg production ('000)	163964	170262	173130	175596	178447	2.21
Total cattle	3084869a	376184b	3546807	-	-	1.36
Total buffaloes	112055a	112111b	79280	-	-	-2.66
Total poultry	4530676a	4933081b	6064881	-	-	3.08

Notes: 'a' refers to 1994 and 'b' refers to 1997.

Source: District Statistical Handbook, Paschim Medinipur

#### **Rural Transports**

Roads, canals, and railways across the district have been crucial in incorporating the agricultural and agriallied sectors into the broader economy. Electricity has helped agriculture by providing it with the power source to run small machinery needed for cultivation (e.g., water pumps) but also by promoting the development of rural industries (e.g., power source for machinery, refrigeration facilities) that increase the value-added components and create rural non-farm employment.

#### **5.2.2** Manufacturing Industry:

Number of factories, capital invested, number of employees, net value added in manufacturing industries in the factory sector of the district and also the number of registered small scale industrial units and employment therein is also commendable. During 2004-05, Paschim Medinipur district recorded 137 factories out of which the largest number (53) are engaged in manufacture of food products and beverages followed by supporting and auxiliary transport (40), manufacture of machinery and equipments registering the lowest (3). Capital invested was largest in manufacture of basic metals while largest number of employees was engaged in supporting auxiliary transport. Net value added was highest in non-metallic mineral products (Table 5.10). Total number of employees in the registered manufacturing was 9034 that constituted 0.62 per cent of the total main workers of the district.

Table 5.10 Selected Characteristics of Factories by Industry Group in Paschim Medinipur District, 2004-05 (P)

(Values in lakh rupees, mandays in thousand & others in number)

Items	No. of factories	Fixed Capital	Invested Capital	No. of epmlo-	Man days	Emolu- ments	Value of input	Values of output	Net value added	Net income
Manufacture of Food products & beverages	53	3211	6253	1651	484	388	24255	25789	1182	719
Manufacture of Tobacco products	6	2	2	14	3	-	3	5	2	2
Manufacture of Paper & paper products	4	1150	1560	525	185	199	2245	2465	59	-5
Manufacture of Chemicals and chemical products	7	145	379	175	51	59	1430	1453	1	-30
Manufacture of non- Metallic mineral products	8	8832	12554	1012	348	449	12848	30460	16728	14937
Manufacture of Basic metals	7	15592	26475	974	330	1033	27621	40429	11904	11349
Manufacture of machinery and equipments	3	5491	10781	1082	363	2058	16561	23288	6037	5783
Supporting and auxiliary transport activities; activities	40	2052	2007				2446	<b>5</b> 00.4	2255	1010
of travel agencies	40	3953	3987	2524	770	944	3116	5924	2355	1810
Others	9	3416	6647	1077	374	771	41825	42919	900	605
Total	137	41792	68638	9034	2908	5901	129904	172732	39168	35170

Notes: P = Provisional.

'Others' include manufacture of textiles, manufacture of coke, refined petroleum products and nuclear fuel, manufacture of rubber and plastics products, manufacture of fabricated metal products except machinery and equipment, manufacture of electrical machinery and apparatus, manufacture of other transport equipment, sale maintenance & repair of motor vehicles & motor cycles; retail sale of automobile fuel.

Source: District Statistical Handbook, Paschim Medinipur

#### **5.2.3 Growth of District Domestic Product and Structural Change:**

As a result of perceptible growth of agriculture, agri-allied sector and industry and progress in the tertiary activities net district domestic product (DDP) recorded annual growth rate of 4.61 per cent during 2002-03 to 2005-06. The annual growth of net DDP from mining and quarrying was highest (63.77 per cent) followed by communications (27.71 per cent), transport, storage & communication- railways (19.30 per cent), construction (18.50 per cent) and registered manufacturing (17.43 per cent), the negative growth being registered by fishery (-3.60 per cent per annum). The structure of net DDP changed in favour of forestry, registered manufacturing, transport, construction and public administration and against agriculture and fishery. Though, the share of agriculture declined from 37.29 per cent in 2002-03 to 33.53 per cent in 2005-06, it remained the dominant sector of the economy having the largest percentage share in net DDP followed by trade, hotels and restaurants (14.96 per cent) and 'other services' (10.29 per cent) (Table 5.11).

Table 5.11 Growth and Sructural Change in Net District Domestic Product, 2002-03 to 2005-06

Indicator	2002-03	Percent	2003-04	Percent	2004-05	percent	2005-06	Percent- share	Annual growth rate
District domestic product (DDP)	780751	100	798653	100	864467	100	888634	100	4.61
Agriculture	291161	37.29	284299	35.60	303938	35.16	297985	33.53	0.78
Forestry	10292	1.32	11538	1.44	12215	1.41	12685	1.43	7.75
Fishery	14216	1.82	13322	1.67	13355	1.54	12680	1.43	-3.60
Mining & quarrying	23	0.003	50	0.01	59	0.01	67	0.01	63.77
Manufacturing Registered	11179	1.43	11037	1.38	21532	2.49	17026	1.92	17.43
Manufacturing unregistered	42039	5.38	44801	5.61	46018	5.32	47596	5.36	4.41
Construction	34000	4.35	40934	5.13	44759	5.18	52865	5.95	18.50
Electricity, gas, water supply	6631	0.85	6188	0.77	6340	0.73	7887	0.89	6.31
Transport, storage & communication- railways	12204	1.56	15981	2.00	17771	2.06	19269	2.17	19.30
Transport by other means & storage	15762	2.02	16025	2.01	19503	2.26	21612	2.43	12.37
Communications	5676	0.73	7315	0.92	8779	1.02	10395	1.17	27.71
Trade, hotels & restaurants	117970	15.11	121436	15.21	129384	14.97	13298	14.96	4.22
Banking & insurance	62046	7.95	62329	7.80	66284	7.67	73752	8.30	6.29
Real estate, ownership of dwellings & business services	40655	5.21	42742	5.35	45659	5.28	48912	5.50	6.77
Public administration	35442	4.54	35213	4.41	39754	4.60	41527	4.67	5.72
Other services	81455	10.43	85443	10.70	89117	10.31	91458	10.29	4.09
Per capita income (Rs)	14689.02	-	14807.69	-	15794.83	-	16000.47	-	2.98

Source: Government of West Bengal (2009).

Percentage contributions of the different sectors of the economy including agriculture are shown for 2005-06 in Figure 5.4.

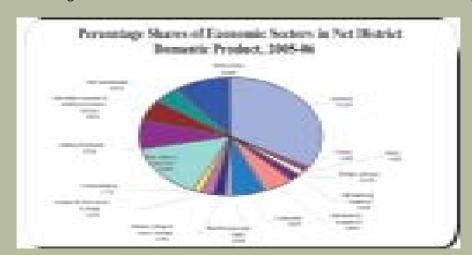


Figure 5.4 Percentage Shares of Economic Sectors in Net District Domestic Product, 2005-06

Per capita outstanding credit advanced by scheduled commercial banks to non-agricultural sector in Paschim Medinipur district in 2007 was Rs 24.60. Percentage of non-agricultural credit to total bank credit was 63.50 while percentage of non-agricultural workers to total workers was 34.90 (Table 5.12).

Table 5.12 Per capita Outstanding Credit Advanced by Scheduled Commercial Banks to Non-Agricultural Sector in Paschim Medinipur District, 2007

Credit	Number of non-agricul- tural workers (lakh)	Per non agricultural worker (Rs.)	Percentage of non-agricultural workers to total workers	Total bank credit (Rs. lakh)	Percentage of non agricultural credit to total bank credit
183.02	7.44	24.60	34.90	288.21	63.50

Source: Reserve Bank of India, Basic Statistical Returns

In non-farm credit achievements of the banking institutions in relation to targets are much less than that in agricultural credits though they improved during the period from 2006-07 to 2008-09. In 2006-07, non-farm credit to the tune of only 10.38 per cent of target was advanced by the banking institutions, which improved in later years. But in 2008-09, the same even amounted to 44.38 per cent. In respect of priority sector, credit and total credit (agricultural, non-agricultural and priority sector credits taken together) credit advanced by the banking institutions in relation to target were, however, higher than that in non-farm sector and it improved also during this period.

#### 5.2.4 Growth and Structural Change in Workforce:

Since main workers and marginal workers can not be added in the working days and earning or income perspective we make an analysis of growth of workforce separately for main workers and marginal workers. Annual growth rate of total main workers was 9.45 per cent during 1991 to 2001. Urban main workers

recorded higher annual growth rate than rural. The very high rate of growth of marginal workers relative to that of main workers in both urban and rural areas across sexes indicates increasing marginalization of workforce of the district. Structure of main workforce changed during this period in favour of household industry workers, and 'other' workers and against cultivators and agricultural labourers. Percentage of main household industry workers to total main workers increased from 4.20 to 5.82 during 1991 to 2001 while that of 'other workers' (non-agricultural) witnessed sharp increase from 16.84 to 39.60 (Table 5.13).

Table 5.13 Growth of Workers in Paschim Medinipur District, 1991 to 2001

Indicators	1991	Percent to total	2001	Percent	Annual growth rate (%) 1991-01	Indicators	1991	Percent	2001	Percent	Annual growth rate (%) 1991-01
Main workers	1367217	100.0	2530112	100.00	9.45	Main total household in dustry workers	57434	4.20	147306	5.82	17.39
Rural main Workers	1335633	97.69	2263811	89.47	7.72	Main total other workers	230288	16.84	1001798	39.60	37.22
Urban main workers	31584	2.31	266301	10.53	82.57	Marginal workers	182290	100	1220945	100.00	63.31
Main total Cultivators	628083	45.94	764520	30.22	2.41	Rural marginal workers	181525	99.58	1182105	96.82	61.25
Main total Agricultural labourers	451412	33.02	616488	24.37	4.06	Urban marginal workers	4719	0.42	38840	3.18	553.01

Source: Census of India 1991 and 2001

#### 5.3 Economic Growth and Structural Changes in Blocks of Paschim Medinipur District

As agriculture as an economic activity remains the major livelihood of most of the rural people across the district, we start with discussing some issues relating to agricultural growth in blocks.

#### 5.3.1 Agricultural Growth:

Along with growth of production and yield agriculture has undergone substantial structural change. While Aus paddy covers small percentage of gross cropped area the proportion of Aman paddy has registered, substantial increase in 24 blocks out of 29 blocks of the district during 1994-95 to 2006-07. Boro paddy area has also recorded substantial increase in 16 blocks of the district, namely Chandrakona-I, Chandrakona-II, Daspur-II, Ghatal, Sankrail, Dantan-I, Debra, Kharagpur-I, Mohanpur, Pingla,

Percentage of foodgrains area to gross cropped area recorded a decline in 19 out of 29 blocks of the district, the blocks for which the percentage share of foodgrains area increased in 2005-06 being Daspur-I, Binpur-II, Jamboni, Nayagram, Debra, Keshiary, Kharagpur-I, Narayangarh, Garhbeta-III and Medinipur (Table 5.14). Cropping pattern has changed in most of the blocks in favour of commercial crops such as potato, oilseeds and vegetables etc.

Table 5.14 Percentage of Foodgrains Area to Gross Cropped Area in Blocks of Paschim Medinipur
District, 1994-95 to 2006-07

Block	1994-95	2005-06	2006-07	Change in percen- tage point	Block	1994-95	2005-06	2006-07	Change in percen- tage point
Chandrakona-I	71.68	59.47	55.5 <i>7</i>	-16.11	Debra	82.39	44.23	90.35	7.96
Chandrakona-II	93.62	53.19	49.00	-44.62	Keshiary	87.36	35.09	89.91	2.55
Daspur-I	66.1	38.4	78.09	11.99	Kharagpur-I	67.35	54.9	89.21	21.86
Daspur-II	87.36	41.12	80.57	-6.79	Kharagpur-II	93.07	64.37	81.01	-12.06
Ghatal	96.8	42.76	76.48	-20.32	Mohanpur	95.5	22.33	87.89	-7.61
Binpur-I	81.27	76.19	65.75	-15.52	Narayangarh	77.08	55.59	85.49	8.41
Binpur-II	64.85	69.87	77.27	12.42	Pingla	97.56	48.35	86.80	-10.86
Gopiballavpur- I	76.88	59.78	66.02	-10.86	Sabang	88.72	56.12	87.10	-1.62
Gopiballavpur -II	78.78	52.57	75.93	-2.85	Garhbeta-I	53.89	59.71	40.83	-13.06
Jamboni	73.7	54.14	84.05	10.35	Garhbeta-II	67.21	64.28	56.20	-11.01
Jhargram	86.77	45.39	80.24	-6.53	Garhbeta-III	39.48	53.94	50.63	11.15
Nayagram	66.42	48.66	85.47	19.05	Keshpur	81.26	66.34	62.88	-18.38
Sankrail	74.46	51.19	73.04	-1.42	Medinipur	73.56	59.64	76.67	3.11
Dantan-I	92.81	60.45	90.02	-2.79	Salboni	77.71	78.9	60.14	-17.57
Dantan-II	100	55.48	91.24	-8.76					

Source: District Statistical Handbook, Paschim Medinipur District, Govt. of West Bengal

In 2005-06, production of Aus rice was highest in Garbeta-I while that of Aman rice was highest in Narayangarh and of boro rice in Sabang. Wheat production was highest in Keshpur while that of potato was highest in Keshpur followed Chandrakonma-II. Production of til was highest in Garbeta I followed by Chandrakona-II and that of mustard was highest in Keshpur followed by Narayangarh. Yield of aus, aman and boro rice, wheat, potato and other crops varied widely in blocks of the district. Yield of aus was highest in Chandrakona-II (3486 kg) followed by Ghatal (3041 kg) while that of aman was highest in Jhargram (3127 kg) followed by Kharagpu-I (3100 kg). Yield of Boro rice was highest in Pingla (3402 kg) followed by Kharagpur-I (3252 kg). The yield rate of til was highest in Chandrakona-II (1337 kg) followed by Ghatal (1288 kg) while that of mustard was highest in Ghatal (1520 kg) followed by Sankrail (1277 kg). Foodrains productivity also varied widely across district, the highest being recorded by Daspur-I block (5.17 tonnes) followed by Daspur-II (4.79 tonnes), the lowest being registered by Narayangarh (2.06 tonnes).

During 2006-07, foodgrains yield improved for most of the blocks compared to that during 1994-95 while all the 29 blocks registered foodgrains yield below 3 tonnes per hectare. During 2006-07, two (2) blocks only recorded foodgrains yield 3 tonnes and above. Chandrakona-II block registered the highest foodgrains yield of 3.58 tonnes per hectare followed by Daspur I block (3.13 tonnes per hectare). Rest of blocks witnessed foodgrains yield varying between 2.00 tonnes and 2.99 tonnes (Table 5.15).

Table 5.15 Foodgrains Yield in Blocks of Paschim Medinipur District, 1994-95 to 2006-07

Block	1994-95	2004-05	2006-07	Change 1994- 2007	Block	1994-95	2004-05	2006-07	Change 1994- 2007)
Chandrakona-I	2.39	2.36	2.53	0.14	Debra	2.54	2.53	2.91	0.37
Chandrakona-II	1.98	2.96	3.58	1.60	Keshiary	1.85	2.39	2.01	0.16
Daspur-I	1.96	2.50	3.13	1.17	Kharagpur-l	1.73	2.44	2.97	1.24
Daspur-II	2.00	2.54	2.90	0.9	Kharagpur-II	2.34	2.34	2.70	0.36
Ghatal	2.64	3.01	2.70	0.06	Mohanpur	2.70	2.24	2.98	0.28
Binpur-II	1.74	2.33	2.68	0.94	Narayangarh	2.47	2.47	2.50	0.03
Binpur-l	2.01	1.82	2.81	0.80	Pingla	2.17	2.01	2.51	0.34
Gopiballavpur-l	1.97	1.75	2.28	0.31	Sabang	2.45	2.14	2.02	-0.43
Gopiballavpur-II	1.84	2.09	2.96	1.12	Garhbeta-I	2.74	2.59	2.41	-0.33
Jamboni	1.78	2.06	2.35	0.57	Garhbeta-II	2.15	1.95	2.59	0.44
Jhargram	1.91	1.72	2.92	1.01	Garhbeta-III	1.76	2.18	2.82	1.06
Nayagram	1.69	1.60	1.82	0.13	Keshpur	1.88	2.26	2.78	0.9
Sankrail	2.03	2.79	2.19	0.16	Medinipur	2.26	2.25	2.75	0.49
Dantan-I	2.40	2.48	2.43		Salboni	1.85	2.53	2.45	0.60
Dantan-II	2.66	2.79	2.49	-0.17	-	-	-	-	-

Source: District Statistical Handbook, Paschim Medinipur District, Government of West Bengal

The improvement in foodgrains yield during the period from 1994-95 to 2006-07 is shown in terms of the frequency distribution of blocks by foodgrains yield in the district. In 1994-95, 13 blocks registered foodgrains yield below 2.0 tonnes, which declined sharply to only 1 (Nayagram block) in 2006-07. On the other hand, the number of blocks recording foodgrains yield varying between 2.00 tonnes and 2.99 tonnes increased from 16 in 1994-95 to 26 in 2006-07. While in 1994-97 no block could achieve foodgrains yield 3.00 tonnes and above in 2006-07 two blocks performed this yield (Table 5.16).

Table 5.16 Frequency Distribution of Blocks by Foodgrains Yield (Tonnes) in Paschim Medinipur District, 1994-95 to 2006-07

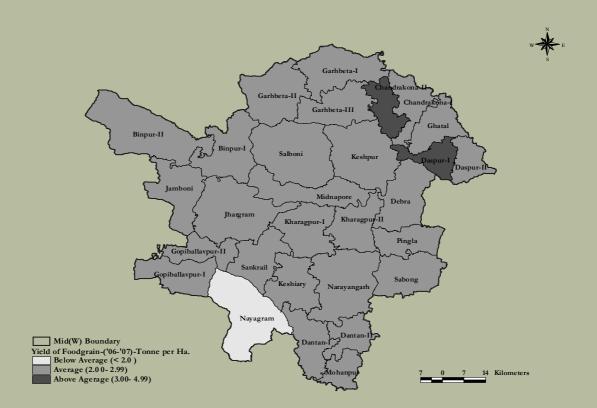
Foodgrains Yield (tonnes)	Number of blocks 1994-95	%	Number of blocks 2006-07	%
Below 2.0	13 Nayagram, Kharagpur I, Binpur-II, Garhbeta-III, Jamboni, Gopiballavpur II, Keshiary, Salboni, Keshpur,Jhargram, Daspur-I, Gopiballavpur-I, Chandrakona-II	44.83	<b>1</b> Nayagram	3.45

Foodgrains	Number of blocks	%	Number of blocks	%
Yield (tonnes)	1994-95		2006-07	
2.00 -2.99	16 Daspur-II, Binpur I, Sankrial, Garhbeta-II, Pingla, Midnapore, Kharagpur-II, Chandrakona-I, Dantan I, Sabang, Narayangarh, Debra, Ghatal, Dantan-II, Mohanpur, Garhbeta-I	37.93	Z6 Keshiary, Sabang, Sankrail, Gopiballavpur-I, Jamboni, Garhbeta-I, Dantan-I, Salboni, Dantan II, Narayangarh, Pingla, Chandrakona-I, Garhbeta-II, Binpur-II, Ghatal, Kharagpur-I, Midnapore, Keshpur, Binpur-I, Garhbeta-III, Daspur-II, Debra, Jhargram, Gopiballavpur-II, Kharagpur-I, Mohanpur	89.65
3.00-4.99	0	17.24	2 Daspur-I, Chandrakona-II	6.90
Total	29	100.00	29	100.00

Source: District Statistical Handbook, Paschim Medinipur District, Government of West Bengal

Map 5.1 Yields of Foodgrains (in MT per Ha.) in Paschim Medinipur during 1994-95





Map 5.2 Yields of Foodgrains (in MT per ha.) in Paschim Medinipur during 2006-07

Block	1994-95	2002-03	2005-06	2006-07
Chandrakona I	433	439	491	466
Chandrakona II	411	337	351	447
Daspur I	189	307	294	301
Daspur II	185	282	240	320
Ghatal	400	300	323	309
Binpur I	314	384	503	454
Binpur -II	310	355	522	532
Gopiballavpur I	414	306	349	383
Gopiballavpur II	415	320	424	438
Jamboni	335	316	421	390
Jhargram	445	264	380	274
Nayagram	375	212	331	279

Block	1994-95	2002-03	2005-06	2006-07
Sankrail	483	638	449	429
Dantan I	473	374	385	377
Dantan II	505	403	407	357
Debra	470	422	417	536
Keshiary	376	412	187	267
Kharagpur I	244	145	230	227
Kharagpur -II	452	389	453	425
Mohanpur	492	323	235	348
Narayangarh	452	450	285	413
Pingla	407	425	483	493
Sabang	459	365	372	452
Garhbeta-I	298	215	274	286
Garhbeta-II	409	287	319	439
Garhbeta-III	142	220	242	345
Keshpur	365	269	384	469
Medinipur	338	184	235	353
Salboni	368	277	375	392

Source: District Statistical Handbook, Paschim Medinipur

Substantial improvement in agricultural productivity across Paschim Medinipur district is attributed to institutional factors like land reforms and technological factors like expansion of irrigation, particularly small irrigation and use of fertilizers. During the period from 1994-95 to 2006-07, number small farmers, marginal farmers, bargadars and pattaholders increased in almost all blocks. In 2006-07, the highest number of bargadars was in Salboni block followed by Keshpur, Narayangarh,, Debra, Keshiary, Jhargra, Ghatal, Sabong, Medinipur and Chandrakona-I. Keshpur registered the highest number of pattaholders in the same year followed by Garhbeta-III, Narayangarh, Salboni, Sankrail, Keshiary, Jhargram, Garhbeta-II, Debra, Medinipur, Nayagram and Sabong. In case of small farmers, the number was highest in Debra during the year 2000-01 followed by Keshiary, Narayangarh, Kharagpur-II, Kharagpur-I, Dantan-I, Binpur-I, Jhargram, Binpur-II, Pingla and Nayagram, while that of marginal farmers was highest in Chandrakona-II followed by Garhbeta-II, Keshpur, Narayangarh, Garhbeta-I, Salboni, Daspur-II, Pingla, Keshiary, Dantan-I, Garhbeta-III, Binpur-I in the sane year (Table 5.18).

Table 5.18 Classifications of Farmers in Blocks of Paschim Medinipur District, 1994-95 & 2006-07

Blocks	Barg	adars	Pattaho	olders	Small F	armers	Margina	l Farmers
	1994-95	2006-07	1994-95	2006-07	1994-95	2000-01	1994-95	2000-01
Chandrakona-l	5080	5244	9113	12879	2725	2725	6498	6498
Chandrakona-II	4847	4937	13123	16585	3185	4122	8076	65093
Daspur-I	4377	4479	4868	5603	2260	2113	13537	12270
Daspur-II	2398	2422	1227	1437	1220	1076	5092	22628
Ghatal	6541	6951	6383	8627	356	1320	3026	6524
Binpur-II	1916	1983	20075	23588	5775	6575	13513	14513
Binpur-l	3214	3354	15525	17623	3589	6817	12504	14190
Gopiballavpur-l	1652	1677	19080	20617	1338	1338	12255	12255
Gopiballavpur-II	3115	3122	14172	16046	4299	3870	8415	8415
Jamboni	3162	3302	19341	20511	4892	4892	8625	8625
Jhargram	7139	7166	14405	27268	6670	6679	12875	12886
Nayagram	2043	2117	18901	25809	903	5529	1583	12267
Sankrial	3898	4001	17796	31649	4708	522	5913	5952
Dantan-I	4413	2155	15068	21063	4118	7124	12687	17493
Dantan-II	2338	2619	8538	12138	4297	4297	7775	7775
Debra	9100	9218	9083	26097	20865	33316	17123	8067
Keshiary	7046	7500	21230	28602	14315	15107	4476	19982
Kharagpur-I	2946	3346	17749	23347	7542	7215	12562	12385
Kharagpur-II	5579	2296	12544	18454	6320	7562	10010	12618
Mohanpur	1738	1756	6181	7512	3433	2125	7740	9080
Narayangarh	9764	9927	22249	35490	13620	11174	7543	29316
Pingla	3640	3766	15129	22693	5174	6174	18272	22450
Sabang	6275	6510	17557	25745	6784	1692	12932	3253
Garhbeta-I	5597	4231	15441	23762	2315	2430	23573	27620
Garhbeta-II	3103	3610	19163	26892	8608	1047	3690	47852
Garhbeta-III	3524	3554	23519	38634	2780	4000	14080	15035
Keshpur	13494	12607	37584	44066	21460	2717	15345	38074
Medinipur	5307	5339	25188	25827	3064	3805	9324	12940
Salboni	7027	12700	21718	32879	4966	3225	14357	22935

Sources: I) B.D.O; ii) Agricultural Census 2000 - 01; iii) Censes of India 1991, 2001

During 1994-95 four blocks, namely Mohanpur, Garhbeta-I, Binpur-I and Jamboni, had the distinction of having above 50 per cent of irrigated area. But during 2006-07, only Binpur-I could maintain this distinction while other three blocks slipped into lower class of percentage of irrigated area. Gopiballvapur-I, however, could elevate to this distinction in 2005-06 and 2006-07 while as many as 14 blocks, namely Chandrakona-I, Dantan-I, Mohanpur, Pingla, Keshiary, Daspur-II, Jhargram, Gopiballavpur-II, Daspur-I, Garbeta-II, Ghatal, Sabang, Kharagpur-II and Garbeta-I had percentage of irrigated area varying between 31 and 50. During 2005-06, Garhbeta-I and Garhbeta-III, recorded the largest fertilizer consumption of 251 kg and above per hectare of gross cropped area while as many as 10 blocks, namely Chandrakona-I, Dantan-I, Sabong, Salboni, Kespur, Garbeta-I, Chandrakona-, Daspur-II, Ghatal, Gopiballavpur-II had per hectare fertliser consumption varying between 150 kgs and 250 kgs for 8 blocks, this consumption varied between 100 kgs and 149 kgs and the remaining 9 blocks had consumption less than 100 kgs (Table 5.19).

Table 5.19 Percentage Share of Irrigated Area to Gross Cropped Area and Fertilizer Consumption per hectare in Blocks of Paschim Medinipur District

Block	Percent	age Share of Irriga	ted Area		consumption ect. (kg.)
	2002-03	2005-06	2006-07	2005-06	2006-07
Chandrakona-I	35.92	31.95	24.47	203.34	145
Chandrakona-II	29.79	24.97	20.63	160.08	172
Daspur-I	42.81	37.96	44.53	57.44	440
Daspur-II	39.70	35.26	41.27	218.89	250
Ghatal	34.12	39.65	43.59	235.49	207
Binpur-II	21.57	20.30	30.36	85.64	49
Binpur-l	70.32	62.87	57.68	98.45	80
Gopiballavpur-I	24.96	54.33	62.59	90.82	48
Gopiballavpur-II	41.47	37.90	44.21	237.87	106
Jamboni	88.40	23.20	28.45	72.54	36
Jhargram	41.89	37.29	44.39	94.91	103
Nayagram	17.78	1864	21.76	90.11	42
Sankrail	23.97	20.98	26.18	110.37	49
Dantan-I	31.57	32.64	35.04	121.09	123
Dantan-II	21.85	25.87	21.75	171.26	199
Debra	29.18	28.19	47.60	123.67	114
Keshiary	22.70	34.69	26.63	80.35	105
Kharagpur-I	19.03	19.58	29.09	130.59	172
Kharagpur-II	41.24	40.69	43.57	102.24	91

Block	Percenta	age Share of Irriga	ted Area	Fertilizer consumption per hect. (kg.)			
	2002-03	2005-06	2006-07	2005-06	2006-07		
Mohanpur	53.33	33.43	48.88	140.20	185		
Narayangarh	18.39	15.27	18.48	71.93	72		
Pingla	36.58	34.28	42.75	147.93	127		
Sabang	43.62	40.14	31.25	179.77	113		
Garhbeta-I	61.66	46.35	32.09	361.10	15 <b>5</b>		
Garhbeta-II	28.60	38.60	26.35	201.25	134		
Garhbeta-III	25.40	21.37	18.10	323.66	182		
Keshpur	20.86	14.84	14.38	189.32	129		
Medinipur	24.76	25.63	27.37	117.28	80		
Salboni	13.05	18.10	12.98	184.67	157		

Sources: P.A.O, Paschim Medinipur

#### **5.3.2** Credit

To finance economic activities, role of institutional credit is very important and hence, we have examined the trend of financing through commercial and gramin banks as well as cooperative societies. It is observed that population served per bank and post offices, both registered an increase trend while number of members of cooperative societies witnessed a declining trend during 1999-2000 to 2006-07 across the district. Working capital of the cooperative societies, however, recorded increase during this period. All this indicates that expansion of branches of commercial and gramin banks has not kept pace with increase in the population. In fact, there are around 60 unbanked gram panchayats in the district.

#### **5.3.3 Development of Agri-allied Sector as Livelihood:**

Water area under effective pisciculture increased significantly across different blocks during 1994-95 to 2006-07. Water area under pisciculture was highest in Sabang followed by Narayangarh in 2006-07 and number of persons engaged in this profession was highest in Sabang followed by Keshpur.

Estimated number of cattle was highest in Keshpur block followed by Sabang and that of buffalo was highest in Binpur I block and Salboni. The number of goats was highest in Keshpur block followed by Garbeta I and that of poultry birds was highest in Keshpur and Garbeta I.

Progress of the blocks of the district in respect of artificial insemination (AI) is remarkable. While Debra block led other blocks in this respect in 2006-07 and 2007-08 Pingla block overtook Debra in 2008-09. Percentage change in AI was highest (51.72) in Binpur II followed by Chandrakona I (48.00) and Ghatal (46.23).

#### 5.3.4 Industry:

Number of units that got registered as small scale industrial units in different blocks of the district has fluctuated over years. However, employment in these units showed a rising trend.

Although the total rural economy of the district depends mainly on agriculture, the handloom industry plays a crucial role in strengthening the economy. This is because the handloom weavers of the district, who are mostly seasonal, take to the profession of weaving at the lean season of agriculture to supplement their income. However, there are also full time weavers in Dantan II Block and Ramjibanpur municipality. As per the Handloom Census, total member of the Handlooms in the district is 10120. Though scattered almost all over the district, the handlooms activities are present in 9 blocks and one Municipality.

#### 5.3.5 Livelihood Pattern in Blocks:

From economic livelihood standpoint, we calculate work participation rate based on the adjusted number of total workers after converting marginal workers into full workers. The worker-population ratio, i.e., work participation rate (WPR) of the district thus calculated is seen to have registered increase from 36.91 to 40.19 per cent during 1991 to 2001.

The adjusted WPR is seen to be relatively low (varying between below 30 per cent and 35 per cent) for the relatively developed blocks like Kharagpur-I, Daspur-II, Ghatal, Chandrakona-I, Chandrakona-II and Dantan-II and relatively high (above 35 per cent) for relatively backward blocks like Binpur-II, Gopiballavpur-II, Jhargram, Jamboni, Gopiballavpur-I, Sankrail and Nayagram.

Similarly, we calculated adjusted number of cultivators, agricultural labourers, household industry workers and other workers by converting corresponding number of marginal workers into full time workers. Thus, proportion of cultivators to total workers registered decline during 1991 to 2001 while that of agricultural labourers, household industry workers and total non-agricultural workers recorded increase.

In 1991, Nayagram block that is relatively backward registered the highest percentage share of marginal workers to total population (above 10 per cent). In 2001 also, the relatively backward blocks like Nayagram, Binpur-II, Jamboi, Jhargram and Sankrail, had in most cases the relatively high percentage of marginal workers (15 per cent and above). On the other hand, relatively developed blocks like Daspur-II, Daspur-I, Ghatal, Kharagpur-I had the relatively low percentage of marginal workers (varying between 5 per cent and 10 per cent).

Although a fall in agriculture-based workforce is considered a positive change from development point of view, not all blocks of Paschim Medinipur district have experienced such positive change to a significant extent. For example, there are as many as 20 blocks, where there percentage of workers dependent on agriculture is 70 per cent or more. It is also observed that those blocks, where a high percentage of workers are engaged in agriculture, it is mostly due to higher share of agricultural labourers and not higher shares of cultivators. There are eight blocks, where the percentage share of agricultural labourers is 40 or more. These blocks are Binpur-II, Binpur-I, Jamboni, Gopiballavpur-I, Gopiballavpur-II, Kharagpur-II, Keshiary nd Jhargram which belong to the low ranks in the human development ladder. This is because high dependence of workers on agriculture implies that they are subject to seasonal fluctuations in income. It is obvious that in those blocks, where the percentage of marginal workers or agricultural labourers is higher, the household's incomes are subject to seasonal fluctuations that make them vulnerable.

To facilitate a comparative study on change in pattern of economic livelihood during 1991 to 2001, we have used the data on total workers as available from the Census. We observe here that for five blocks, namely Binpur-II, Gopiballavpur-II, Sankrail, Dantan-I and Mohanpur, the relatively backward blocks, the work participation rate registered decline while change in percentage of marginal workers to population recorded increase for all the blocks, which indicates the increasing marginalization of the workers during the period from 1991 to 2001 (Table 5.20).

Table 5.20 Work Participation Rate WPR in Blocks of Paschim Medinipur District, 1991 and 2001

Block	WF (Perc		Change in Percentage Point of WPR		of Marginal (MW) to lation	Change Percentage point
	1991	2001	1991-2001	1991	2001	1991-2001
Chandrakona-I	30	37	7	1	10	9
Chandrakona-II	34	35	1	3	5	2
Daspur-l	35	41	6	5	9	4
Daspur-II	32	32	0	4	5	1
Ghatal	33	35	2	3	8	5
Binpur-I	46	48	2	6	18	12
Binpur-II	50	49	-1	8	25	17
Gopiballavpur-l	41	43	2	4	13	9
Gopiballavpur-II	41	41	0	4	11	7
Jamboni	46	47	1	7	22	15
Jhargram	43	47	4	6	21	15
Nayagram	53	59	6	10	24	14
Sankrail	48	48	0	8	20	12
Dantan-I	38	35	-3	4	9	5
Dantan-II	31	35	4	2	11	9
Debra	41	45	4	3	15	12
Keshiary	42	45	3	3	15	12
Kharagpur-I	31	33	2	2	8	6
Kharagpur- II	38	42	4	3	16	13
Mohanpur	33	31	-2	4	8	4
Narayangarh	38	40	2	5	15	10
Pingla	36	53	17	5	18	13
Sabang	41	57	16	9	20	11
Garhbeta-I	34	47	13	2	16	14
Garhbeta-II	41	41	0	4	13	9
Garhbeta-III	40	44	4	6	16	10
Keshpur	33	35	2	3 9		6
Medinipur	38	39	1	3	12	9
Salbani	43	44	1	7	16	11

Source: Census, 1991 and 2001

Note: WPR = Total workers to total population

It is to be noted that a fall in agriculture-based workforce is considered a positive change from development point of view, not all blocks of Paschim Medinipur have experienced such positive changes to a significant level. For example, there are still 12 blocks, namely Chandrakona-II, Gopiballavpur-II, Sankrail, Dantan-I, Dantan-II, Keshiary, Mohanpur, Narayangarh, Garhbeta-I, Garhbeta II, Keshpur and Salboni where the percentage of workers dependent on agriculture is 80 per cent or more. It is also observed that in those blocks, where a high percentage of people are engaged in agriculture, it is mostly due to higher share of agricultural labourers and not for the higher shares of cultivators. There are six blocks, where the percentage of agricultural labourers is above 35. These blocks are Chandrakona-II, Gopiballavpur-I, Gopiballavpur-II, Jamboni, Debra and Keshiary. High dependence of workers on agriculture implies that they are subject to seasonal variations in income. It is obvious that in those blocks where the percentage of marginal workers or agricultural labourers is higher, the income of the households is subject to seasonal fluctuations and these makes them vulnerable.

Table 5.21 Economic Livelihood Pattern in Blocks of Paschim Medinipur District, 1991 and 2001

Block	Percentage of Cultivators (CL)		Percentage of Agriculture Labourers (AL)		Percent Household workers	Industry	Percentage of other workers		
	1991	2001	1991	2001	1991	2001	1991	2001	
Chandrakona-I	53.53	50.04	32.09	29.24	2.29	2.10	12.09	18.62	
Chandrakona-II	54.49	46.07	33.34	35.40	1.25	2.14	10.92	16.39	
Daspur-I	53.98	40.02	18.78	19.69	3.18	6.15	24.07	34.14	
Daspur-II	44.63	30.03	17.17	18.83	4.12	6.18	34.08	44.96	
Ghatal	49.14	36.68	24.40	24.73	7.34	9.55	19.12	29.03	
Binpur-I	47.30	37.64	39.27	38.37	3.17	3.80	10.26	20.20	
Binpur-II	52.30	37.87	33.08	28.73	4.57	8.00	10.05	25.41	
Gopiballavpur-I	41.10	36.14	42.71	40.61	4.15	5.36	12.05	17.89	
Gopiballavpur-II	43.53	39.08	43.43	42.05	2.24	3.03	10.80	15.84	
Jamboni	36.84	27.95	41.77	35.95	4.57	7.06	16.81	29.03	
Jhargram	44.91	33.96	38.09	30.06	2.02	3.64	14.98	32.33	
Nayagram	40.51	33.59	33.63	25.46	16.93	21.18	8.92	19.77	
Sankrail	50.83	42.51	37.10	34.58	3.49	5.11	8.58	17.80	
Dantan-I	55.27	42.44	26.62	31.78	3.18	3.67	14.93	22.11	
Dantan-II	54.48	42.39	30.18	29.79	2.03	3.10	13.31	24.72	
Debra	36.97	30.50	43.35	35.49	1.54	2.94	18.14	31.06	
Keshiary	43.57	37.35	46.38	39.59	1.63	3.39	8.41	19.66	

Block	Percentage of Cultivators (CL)		Agriculture	Percentage of Agriculture Labourers (AL)		age of I Industry s (HHI)	Percentage of other workers		
	1991	2001	1991	2001	1991	2001	1991	2001	
Kharagpur-I	27.99	11.76	26.52	14.74	1.23	1.21	45.00	72.29	
Kharagpur-II	32.47	29.35	48.13	34.93	1.67	2.38	17.73	33.34	
Mohanpur	60.30	51.82	22.65	25.55	2.01	2.65	15.12	19.99	
Narayangarh	47.51	36.74	33.50	32.85	4.35	5.37	14.64	25.04	
Pingla	49.68	42.34	29.01	29.24	6.57	4.06	14.75	24.36	
Sabang	51.03	41.74	19.59	22.19	17.54	21.16	11.85	14.91	
Garhbeta-I	48.36	42.84	31.70	34.50	1.54	3.84	18.40	18.83	
Garhbeta-II	51.27	38.00	35.81	32.50	2.18	3.32	10.74	26.18	
Garhbeta-III	44.16	32.97	28.56	24.79	4.48	6.15	22.80	36.10	
Keshpur	55.93	48.06	31.67	28.11	1.87	2.87	10.53	20.96	
Medinipur	34.00	26.07	41.41	34.11	3.20	5.39	21.39	34.44	
Salbani	51.03	40.15	32.63	32.50	2.40	5.03	13.94	22.32	

Source: Census 1991 and 2001

Table 5.22 Change in Percentage Point in Respect of Economic Livelihoods in Blocks of Paschim Medinipur District, 1991 to 2001

Block	Change in Percentage Point of Cultivators (CL)	Change in Percentage Point of Agriculture Labourers (AL)	Change in Percentage Point of Household Industry workers (HHI)	Change in percentage Point of Other workers	Percentage of non agriculture workers		Change in Percentage Point of Non- agriculture workers
	1991-2001	1991-2001	1991-2011	1991-2011	1991	2001	1991-2001
Chandrakona-I	-3.49	-2.85	-0.19	6.53	14.38	20.72	6.34
Chandrakona-II	-8.42	2.06	0.89	5.46	12.17	18.53	6.36
Daspur-I	-13.96	0.91	2.97	10.07	27.24	40.30	13.06
Daspur-II	-14.60	1.66	2.06	10.88	38.20	51.14	12.94
Ghatal	-12.45	0.33	2.21	9.92	26.46	38.58	12.12
Binpur-l	-9.66	-0.90	0.63	9.94	13.43	23.99	10.56
Binpur-II	-14.44	-4.36	3.43	15.37	14.62	33.41	18.79

Block	Change in Percentage Point of Cultivators (CL)	Change in Percentage Point of Agriculture Labourers (AL)	Change in Percentage Point of Household Industry workers (HHI)	Change in percentage Point of Other workers	non ag	ntage of riculture rkers	Change in Percentage Point of Non- agriculture workers
	1991-2001	1991-2001	1991-2011	1991-2011	1991	2001	1991-2001
Gopiballavpur-l	-4.96	-2.09	1.21	5.84	16.19	23.25	7.06
Gopiballavpur-II	-4.45	-1.38	0.79	5.04	13.04	18.87	5.83
Jamboni	-8.89	-5.82	2.49	12.22	21.39	36.10	14.71
Jhargram	-10.95	-8.03	1.62	17.35	17.00	35.98	18.98
Nayagram	-6.92	-8.17	4.25	10.85	25.86	34.03	8.17
Sankrail	-8.32	-2.52	1.62	9.23	12.07	14.59	2.52
Dantan-I	-12.83	5.16	0.49	7.17	18.11	12.95	-5.16
Dantan-II	-12.09	-0.39	1.07	11.41	15.34	15.73	0.39
Debra	-6.47	-7.86	1.40	12.92	19.68	27.54	7.86
Keshiary	-6.22	-6.79	1.76	11.25	10.05	16.84	6.79
Kharagpur-I	-16.23	-11.78	-0.02	27.29	32.67	57.27	24.60
Kharagpur-II	-3.12	-13.20	0.71	15.61	19.40	32.60	13.20
Mohanpur	-8.48	2.90	0.64	4.87	17.02	14.15	-2.87
Narayangarh	-10.77	-0.65	1.02	10.40	18.99	19.64	0.65
Pingla	-7.34	0.23	-2.51	9.61	21.31	21.08	-0.23
Sabang	-9.29	2.61	3.62	3.06	29.38	26.78	-2.60
Garhbeta-I	-5.52	2.80	2.30	0.43	19.94	17.14	-2.80
Garhbeta-II	-13.27	-3.31	1.14	15.44	12.92	16.23	3.31
Garhbeta-III	-11.19	-3.77	1.67	13.29	27.28	31.05	3.77
Keshpur	-7.87	-3.56	1.00	10.43	12.40	15.96	3.56
Medinipur	-7.93	-7.30	2.19	13.04	24.59	31.89	7.30
Salbani	-10.88	-0.14	2.63	8.39	16.34	16.47	0.13

Source: Census, 1991 and 2001

Percentage of main workers to total workers is relatively high for the relatively developed blocks having relatively high human development. In 2001, only five blocks viz Chandrakona-II, Ghatal, Daspur-I, Daspur-II and Kharagpur-I, were having above 75 per cent main workers to total workers ratio. These blocks have strong development impetus as provided by cold storage industry, urbanization, high agricultural productivity, well developed transport system and high literacy. Nayagram and Sabong are the two blocks which are well known for babui rope making and mat industry respectively in the household sector and

they have above 10 per cent main and marginal workers, in the household industry. On the other hand, there are five blocks, namely Binpur-II, Jhargram, Jamboni, Nayagram and Sankrail having above 40 per cent marginal workers to total workers. These blocks are less developed economically and also in respect of human development. Binpur-II, Binpur-I, Jhargram, jamboni, Sankrail, Kharagpur II and Keshiary blocks have above 25 per cent marginal agricultural labourers with relatively low human development (Table 5.23)

Table 5.23 Percentage of Main and Marginal Workers to Total Workers in Blocks of PaschimMedinipur District, 2001

Block	P	ercentag to	e of mai otal worl		rs to	Percentage of marginal workers to total workers				
	Total	Culti- vators	Agl. Lab.	HHI workers	Other workers	Total	Culti- vators	Agl. Lab.	HHI workers	Other workers
Binpur-II	48.6	18.6	14.3	4.3	11.4	52.9	7.1	35.7	5.7	2.9
Binpur-I	51.5	22.7	22.7	3.0	12.1	39.4	7.6	27.3	3.0	3.0
Garhbeta-II	67.2	29.5	23.0	3.3	13.1	34.4	11.5	14.8	6.6	3.3
Garhbeta-I	69.5	25.6	23.2	2.4	18.3	30.5	9.8	13.4	4.9	4.9
Garhbeta-III	63.1	21.5	15.4	4.6	23.1	35.4	3.1	10.8	15.4	7.7
Chandrakona-I	74.4	37.2	20.9	4.7	14.0	27.9	9.3	9.3	4.7	4.7
Chandrakona-II	83.8	40.5	29.7	5.4	13.5	16.2	5.4	8.1	5.4	5.4
Ghatal	77.6	29.9	19.4	7.5	22.4	22.4	4.5	10.5	4.5	3.0
Daspur-l	77.8	30.6	15.3	5.6	26.4	22.2	9.7	5.6	2.8	4.2
Daspur-II	84.9	25.8	16.7	6.1	37.9	15.2	6.1	6.1	3.0	3.0
Keshpur	74.8	36.4	21.2	2.0	16.2	26.3	6.1	14.1	5.1	3.0
Salboni	64.4	26.0	20.6	2.7	13.7	32.9	5.5	21.9	6.9	2.7
Medinipur	71.0	17.7	24.2	3.2	24.2	30.7	3.2	21.0	3.2	4.8
Jhargram	54.9	19.7	16.9	2.8	16.9	45.1	8.5	31.0	2.8	2.8
Jamboni	54.2	14.6	18.8	4.2	16.7	45.8	8.3	33.3	4.2	4.2
Gopiballavpur-II	73.7	29.0	29.0	5.3	13.2	26.3	5.3	18.4	5.3	5.3
Gopiballavpur-l	72.5	25.0	30.0	5.0	12.5	30.0	5.0	20.0	5.0	5.0
Nayagram	58.9	20.6	13.7	11.0	11.0	42.5	4.1	8.2	20.6	6.9
Sankrail	59.2	24.5	20.4	4.1	10.2	42.9	8.2	28.6	4.1	4.1
Kharagpur-I	77.6	9.2	11.8	2.6	56.6	26.3	4.0	15.8	2.6	5.3
Kharagpur-II	60.9	18.8	21.7	2.9	20.3	37.7	5.8	27.5	2.9	2.9

Block	Р	Č	e of mai otal wor	n worke kers	rs to	Percentage of marginal workers to total workers				
	Total	Culti- vators	Agl. Lab.	HHI workers	Other workers	Total	Culti- vators	Agl. Lab.	HHI workers	Other workers
Debra	66.1	20.0	23.5	2.6	20.0	33.9	7.8	20.0	1.7	7.0
Pingla	64.8	27.5	18.7	2.2	16.5	34.1	16.5	11.0	2.2	4.4
Sabong	64.7	27.2	14.7	14.0	9.6	35.3	10.3	11.0	11.8	2.9
Narayangarh	63.8	22.9	21.0	3.8	16.2	38.1	6.7	22.9	4.8	2.9
Keshiary	66.1	25.4	27.1	3.4	13.6	33.9	5.1	25.4	3.4	3.4
Dantan-I	74.1	31.5	24.1	3.7	16.7	25.9	5.6	16.7	3.7	3.7
Dantan-II	68.1	29.8	21.3	4.3	17.0	31.9	8.5	17.0	4.3	4.3
Mohanpur	73.3	40.0	20.0	6.7	16.7	23.3	10.0	13.3	6.7	6.7
District Total:	66.86	25.10	20.11	4.06	17.59	33.14	7.37	17.80	4.09	3.89

Source: Primary Census Abstract, West Bengal, 2001

Figure 5.5 Percentage of Main worker

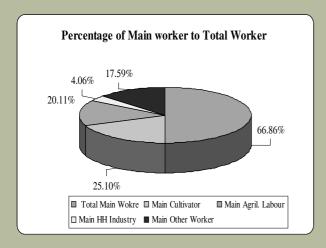
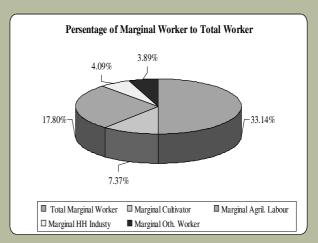


Figure 5.6 Percentage of Main worker



Rural Household Survey conducted by the Department of Panchayats and Rural Development in 2005 classifies rural households into five categories, namely (i) agricultural labourer, (ii) cultivators, (iii) artisans, hawkers etc., (iv) unorganized sector wage labourer, and (v) organanised sector labourer and self-employed. The percentage of agricultural labourers to total workers of the rural households across blocks of the district shows that it was highest in Jamboni block (59.65 per cent) followed by Kharagpur I (56.69 per cent), Nayagram (55.47 per cent) and Keshiary (50.77 per cent). These blocks ranked low in respect of values of human development index (Table 1.1 is referred back). As many as 17 out of 29 blocks have percentage to agriculture labourers "between" 40.00 to 49.99. Daspur-II, recorded the highest percentage of non-agricultural labourers (54.27) followed by Daspur-I, Ghatal and Debra (Table 5.24). These three blocks have been among the top rankers in respect of values of human development index across the district.

Table 5.24 Percentage distribution of workers by economic livelihood classes, 2005

Block	Daysantana	Davasatara	Davasatasa	Daycontons	Danasatara	Davasatasa
BIOCK	Percentage of	Percentage of	Percentage of non	Percentage of artisans	Percentage of	Percentage of
	agriculture	cultivation	agriculture	vendore etc.	unorganized	unorganized
	labourers				wage workers	workers
Chandrakona-I	42.91	40.34	16.75	5.37	4.82	6.56
Chandrakona-II	49.33	33.48	17.19	4.04	4.71	8.43
Daspur-I	30.04	34.66	35.30	10.49	12.02	12.79
Daspur-II	26.50	19.23	54.27	14.65	27.87	11.76
Ghatal	37.11	29.48	33.41	8.39	9.82	15.20
Binpur-II	46.73	33.76	19.51	6.58	5.09	7.84
Binpur-I	48.81	33.24	17.95	5.96	3.98	8.00
Gopiballavpur-I	41.82	35.21	22.97	7.59	7.25	8.13
Gopiballavpur-II	42.28	39.19	18.53	4.85	4.17	9.51
Jamboni	59.65	25.63	14.72	4.17	3.63	6.92
Jhargram	40.40	30.25	29.35	7.26	8.59	13.50
Nayagram	55.47	32.11	12.42	4.86	2.55	5.01
Sankrial	39.27	41.43	19.3	6.28	5.51	7.51
Dantan-I	44.97	39.54	15.49	3.42	3.98	8.20
Dantan-II	40.62	40.91	18.47	5.46	5.03	7.98
Debra	36.46	30.65	32.89	7.28	8.38	17.33
Keshiary	50.77	33.81	15.42	3.64	3.10	8.68
Kharagpur-I	56.69	18.19	25.12	4.25	6.24	14.63
Kharagpur-II	48.70	31.30	20.00	4.81	5.37	9.82
Mohanpur	43.27	39.55	17.18	5.44	5.14	6.60
Narayangarh	42.34	36.10	21.56	5.73	4.53	11.30
Pingla	42.00	36.29	21.71	6.62	5.18	9.91
Sabang	39.19	40.96	19.85	5.86	4.04	9.94
Garhbeta-I	40.06	38.13	21.81	5.37	4.97	11.48
Garhbeta-II	41.32	37.77	20.91	5.58	4.50	10.81
Garhbeta-III	42.06	29.03	28.91	6.62	7.70	14.59
Keshpur	35.85	42.19	21.96	7.91	5.79	8.27
Medinipur	49.36	25.59	25.05	7.73	6.64	10.68
Salboni	39.24	35.31	25.45	6.49	5.31	13.65
District Total:	42.14	33.76	24.10	6.60	6.85	10.66

Source: Primary Census Abstract, West Bengal, 2001.

Figure 5.7 Distribution of Workers by Economic Livlihood Classes (In %), 2005

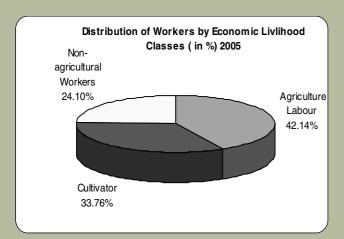
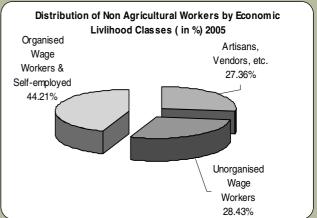


Figure 5.8 Distribution of Workers by Economic Livlihood Classes (In %), 2005



#### **5.4 Impact of Different Rural Development Programmes:**

Rural development programmes adopted in India as centrally sponsored programmes are broadly divided into two categories: one, self employment programmes and second, wage employment programmes. The former being implemented currently in the form of Swarna Jayanti Swarojgar Yojana (SGSY) and the massive wage employment programme in operation, is Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

#### 5.4.1 Swarna Jayanti Gram Swarojgar Yojana (SGSY):

It was launched from April 1999. This is a holistic programme covering all aspects of self-employment such as organization of the poor into Self Help Groups (SHGs) and providing them training, credit, technology, infrastructure and marketing opportunities. SHGs are voluntary associations of people formed to achieve social and economic goals and they are in the nature of community based organizations. The groups are being formed for augmenting income of their members by taking up micro-enterprises as well as ensuring benefits to their families under various development programmes. Formation of SHGs by members, particularly the women and those from the poorest section of the society has been given priority.

The SGSY aims at alleviating rural poverty by facilitating creation of self employment opportunities for the poor. The primary objective of the groups is to mobilize saving of individual members, to ensure availability of need-based financial services to them and increase their capacity to take up income generating activities. When the groups seek to undertake economic activities, SGSY assistance is provided to them in the form of bank credit and subsidy.

The SHGs are also encouraged to participate in various development activities. Individuals living below the poverty line can be assisted under SGSY, but the major thrust of the scheme is on development

of the groups. The scheme is implemented in the District Rural Development Cells (DRDC) of the Zilla Parishads. Like other centrally sponsored programmes, SGSY is funded by both the Central and the State Governments in the ratio of 75:25.

In West Bengal, self help groups are of late emerging as the building blocks of poverty-focused development. It forms the social capital which facilitates financial linkage of poor households with banks and financial institutions. Paschim Medinipur district recorded up to December 2009, the highest number of SHGs formed (26205) among the districts. Number of SHGs passed Grade-I was 20754, i.e., 79.20 per cent of the SHGs formed. The number of SHGs formed up to this month varied widely across blocks. It was highest in Sabong block (1612) followed by Jhargram (1457), Keshpur (1415), Narayangarh (1299), Debra (1298), Garhbeta-I (1215), Binpur-II (1123) and Salboni (1102) whereas number of women SHGs formed was highest in Sabong block (1597) followed by Debra (1275), Narayangarh (1267), Salboni (1060) and Binpur-II (1012) respectively. Number of SHGs passed Grade-I was highest in Keshpur (1361)) followed by Sabong (11247), Narayangarh (1214) and Debra (1067) whereas SHGs passed Grade-II was highest in Debra (449) followed by Narayangarh (442) and Sabong (385). The number of SHGs credit linked was highest in Garhbeta-III (241) followed by Debra (175), Keshpur (165), Keshiary (143), Kharagpur-II (137), Gopiballavpur-II (133), Daspur-II (133) and Daspur-I (131) respectively. The detail is given below in Table 5.25.

Table 5.25 Performance under SGSY up to December 2009 since Inception

Block	No. of SHGs formed	No. of Women SHGs ormed	Total Savings (Rs. in Lakh)	Passed Grade I (in Number)	Per cent¹	CC a/c Opened (in Number)	Amount of CC disbursed (Rs. in Lakh)	Passed Grade II (in Number)	Per cent²	Proposed for credit linkage (in Number)	Credit linked (in Number)	Per cent <sup>3</sup>
Chandrakona-I	556	556	52.559	549	98.74	458	118.05	276	50.27	142	37	13.41
Chandrakona-II	462	436	39.766	360	77.92	274	67.50	134	37.22	106	69	51.49
Daspur-I	929	871	138.926	752	80.95	633 2	07.375	176	23.40	176	105	59.66
Daspur-II	763	737	114.78	637	83.49	602	154.73	296	46.47	215	131	44.26
Ghatal	518	384	41.082	367	70.85	312	47.40	115	31.34	103	82	71.30
Binpur-II	1123	1012	170.00	851	75.78	652	153.54	234	27.50	160	46	19.66
Binpur-I	706	139	19.285	492	69.69	295	34.956	28	5.69	24	6	21.43
Gopiballavpur-I	755	663	22.10	509	67.42	279	68.5	39	7.66	9	2	50.13
Gopiballavpur-II	539	303	102.618	453	84.04	289	64.31	186	41.06	144	133	71.51

### Economic Livelihoods

Block	No of SHGs formed	No. of Women SHGs ormed	Total Savings (Rs. in Lakh)	Passed Grade I (in Number)	Per cent1	CC a/c Opened (in Number)	Amount of CC disbursed (Rs. in Lakh)	Passed Grade II (in Number)	Per cent <sup>2</sup>	Proposed for credit linkage (in Number)	Credit linked (in Number)	Per cent <sup>3</sup>
Jamboni	583	313	32.218	388	66.55	289	38.11	41	10.57	25	3	7.32
Jhargram	1457	994	170.02	1114	76.46	952	185.50	155	13.91	123	88	56.77
Nayagram	949	706	101.207	565	59.54	333	83.49	67	11.86	44	13	19.40
Sankrial	866	846	51.691	548	63.28	325	62.05	113	20.62	113	7	60.19
Dantan-I	828	796	101.52	630	76.09	533	109.51	104	16.51	102	34	32.69
Dantan-II	733	689	131.219	662	90.31	558	168.17	184	27.79	137	39	21.20
Debra	1298	1275	451.93	1076	82.90	969	240.17	489	45.45	369	175	35.79
Keshiary	935	931	97.60	785	83.96	639	112.60	224	28.54	223	143	63.84
Kharagpur-I	822	822	112.053	632	76.89	461	102.632	108	17.09	88	38	35.19
Kharagpur-II	777	751	101.016	687	88.42	604	148.348	221	32.17	219	137	61.99
Mohanpur	479	479	70.898	446	93.11	323	77.00	74	16.59	25	13	17.57
Narayangarh	1299	1267	187.68	1214	93.46	918	176.76	442	36.41	116	71	16.06
Pingla	937	911	142.83	710	75.77	603	155	132	18.59	132	65	49.24
Sabang	1612	1597	194.95	1247	77.36	979	141.38	385	30.87	182	73	18.96
Garhbeta-I	1215	550	84.702	864	71.11	688	171.192	135	15.63	135	32	23.70
Garhbeta-II	835	504	67.82	680	81.44	510	69.35	143	21.03	135	5 <i>7</i>	39.86
Garhbeta-III	841	775	115.573	696	82.76	664	169.6	270	38.79	268	241	89.26
Keshpur	1415	920	136.82	1361	96.18	998	174.15	247	18.15	237	165	66.80
Medinipur	871	456	41.95	620	71.18	477	65.62	101	16.29	44	14	13.86
Salboni	1102	1060	100.51	859	77.95	562	50.35	162	18.86	151	27	16.67
Total	26205	21743	3195.323	20754	79.20	16179	3417.343	5281	25.45	3947	2046	38.74

Source: Project Director, DRDC, Paschim Medinipur

Notes: 1 in relation to SHGs formed,

2 in relation to SHGs passed Grade-I, 3 in relation to SHGs passed Grade-II

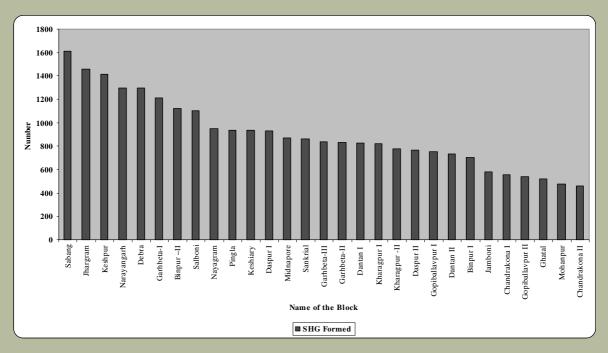
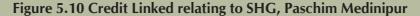
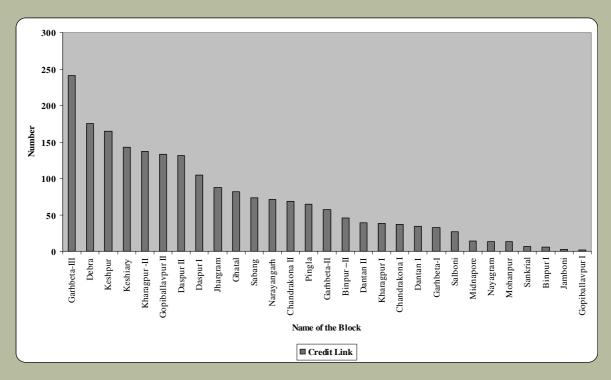


Figure 5.9 SHG formed in Paschim Medinipur up to March 2010





#### Economic Livelihoods

Progress of SHGs in districts of West Bengal has been remarkable in terms of number of groups formed, passed grade-I, grade-II and credit linked. There has been diversification of occupation across SHG member households and women SHG members receiving training of different income generating activities. During 2002-03 to 2005-06, the number of deposit-linked SHGs increased significantly while that of credit-linked SHGs recorded increase at a higher rate. Amount of credit per SHG increased appreciably during this period. But all this does not carry much to the SHGs because this amount of credit, even if fully utilized for investment, appears to be too small to generate sufficient income for the members of the SHG.

Table 5.26 Number of Self Help Groups (SHGs) Formed, Passed Grade I and Grade II and Credit Linked by Bank under SGSY since Inception in Paschim Medinipur District (up to March 2008)

Name of the Bank (No of branches)	No. of SHG formed	No. of Women SHG ormed	Total Savings (Rs. in Lakh)	No. of SHGs Passed Grade- I	Per cent1	Revolving Fund released (in Number)	Amount of Casch Credit Disbursed (Rs. in Lakhs)	No. of Passed Grade II	Per cent	Sanctioned by Bank (in Number)	Credit linked (in Number)	Per cent
Allahabad Bank(32)	2322	1761	227.02	1710	73.64	1575	283.802	420	24.56	257	185	44.0
Bank of Baroda (2)	156	156	24.931	119	76.28	117	19.25	13	10.92	2	2	15.4
Bank of India(8)	552	424	37.48	338	61.23	245	48.6	54	15.98	45	37	68.5
Canara Bank(3)	307	100	12.92	129	42.02	105	8.23	14	10.85	3	3	21.4
Central Bank of India (6)	471	231	38.93	272	57.75	257	47.7	38	13.97	26	8	21.0
Indian Bank (5)	445	306	61.03	317	71.24	299	51.55	43	13.56	17	15	34.9
Indian Overseas Bank(3)	280	257	24.49	260	92.86	206	26.93	65	25.00	38	15	23.08
Bangiya Gramin Vikash Bank(37)	3063	2375	319.33	2215	72.31	2063	449.573	478	21.58	172	116	24.3
Oriental Bank of Commerce(1)	51	51	6.29	49	96.08	45	3.75	1	2.04	0	0	0.00
Punjab National Bank (44)	3197	2747	291.10	2403	75.16	2063	391.816	761	31.67	253	232	30.5
State Bank of India(46)	3850	2994	416.60	2821	73.27	2452	488.88	648	22.97	235	188	29.0
United Bank of 4431India(63)	3460	419.08	2985	67.37	2521	478.485	609	20.40	226	197	32.3	
United Commercial Bank(14)	876	646	74.65	695	79.34	637	122.25	200	28.78	68	53	26.5
Union Bank of India(1)	33	33	1.69	29	87.88	28	2.25	17	58.62	0	0	0.00
Vidyasagar Central Co-Op Bank(22)	1681	1461	178.24	1167	69.42	1078	140.856	323	27.68	66	58	18.0
Total	21715	17002	2133.77	15509	71.42	13691	2563.92	3684	23.75	1408	1109	30.1

Source: Project Director, DRDC, Paschim Medinipur

Further, general economic conditions as reflected in per capita income also determine how the SHGs would continue with their productive economic activities. Low level of per capita income in the economically backward regions does not offer favourable environment for SHGs to grow and develop.

#### **CASE STUDIES ON SHG**

#### Struggle and Win

Manikkundu Uttar 3 Self Helf Group in Chandrokana-I block has been continuing their group activity for 8 years. Their main economic activity is 'Dhup (incense)-Making'. Total 9 group members jointly have been carrying on their single group activity, i.e., incense making. They collect raw materials from Ghatal town and sell their product at local market and outside directly. Their per day work time is 3 pm to 5 pm. This group regularly maintain their account book and place it in the group meeting. They make timely deposit of saving and take loan money from their bank account. Total loan money from UCO Bank is Rs. 200000. But due to their regular repayment of loan money for last 5 years, they have at present loan money of Rs. 36000. The remarkable aspect of this group is the solidarity of group members. They observe some rule which is fixed by unanimously in the meeting and if anyone violates the rule she has to pay Rs 5 as penalty money. Due to flood in 2008 they had faced a loss of Rs 25000, which was a big challenge for their survival. But they took up the challenge and presently they are in a good position. This group demands compensation of Rs 25000 and a work shed for storing raw materials to avoid damage.

#### **Small Enterprise but Outsourcing**

Satbankura Soft Toys is a small manufacturing SHG enterprise of Garbeta III block, which has been linked up with Kolkata based export based company 'Shockely Hall Electronics (P) Ltd. Salt Lake City, Sector V'. Total number of women workers engaged in this manufacturing enterprise is 30. Kolkata based private company has been supplied all types of raw materials.

Workers of Soft Toy enterprise have been weaving different part of Toys for making a format of Toys through electric weaving machine. Per day work hour for each women varies between 6hr to 8 hr. Income of these workers depends on the manufacturing order of that particular private companies and on work efficiency of workers. Per month minimum and maximum monthly income of a worker are Rs 100 and Rs 2500 respectively. Total payment for 30 women workers in November 2009 and December 2009 are Rs 4575 and Rs 13278 respectively.

#### **Success but Marketing Problem**

Baikanthapur Ma Sitala Self Help Group of Daspur I block has been working for last 6 years. Their main economic activity is making of Door-Mat. They have to collect raw materials from Kolkata and also sale in Kolkata. Per capita income of each group members is Rs 1000. But due to increase in cost of raw materials they stopped their production. Their cost price is increasing but sale price is not increasing. They have to face loss Rs 3-4 for sale of per piece Door-Mat. Total loan money for their group is Rs 2, 25,000.

#### Failure for lack of institutional marketing support

**Sneha** is a brand name of the baby food product produced by a Women Self Help Group under Keshpur block of Paschim Medinipur distict. It could produce the product with locally available inputs like flour, sugar and others and was flourishing during the late 1990s and early 2010s while it enjoyed the support from the ICDS of the district. The institutional support was gradually withdrawn and the SHG is now in critical condition producing only very low volume of the product having the order for the same from a local physician and shop located at the Jhargram Sub-division. Much of the deposits with the banks on their accounts has been withdrawn resulting into a dormant / non-functioning SHG for most of the time in a year.

#### 5.4.2 A brief note on MGNREGA

More than one-third of the population of this district is below poverty line. Low level of income continues to be the barrier for the poor to escape poverty trap. The poor people lack opportunities to have access to public infrastructure and income earning. A majority of them earn their livelihood through unskilled, casual manual labour and harnessing the natural resource base. This dependence make them more vulnerable to crises like climate shock, natural disaster, ill health, all of which adversely affect their employment opportunity and reduce their ability to move out of poverty trap.

In the spirit of welfare state concept of the Constitution of India, the Govt. of India enacted National Rural Employment Guarantee Act -2005 which was passed in the Parliament on  $23^{rd}$  August, 2005 and was enforced in Paschim Medinipur district on  $2^{nd}$  February, 2006. NREGA or commonly known as 100-days work is the biggest employment guarantee programme ever launched in this country. NREGA with its right based frame work is a paradigm shift from all other government sponsored development programmes which were supply driven.

NREGA is an Act to strengthen livelihood security through time bound guaranteed wage employment. Each rural household is entitled to get 100 days wage employment in a financial year. In the history of India, for the first time, right to employment has been acknowledged by the State. The main objectives of this Act are as follows:

- a) To provide a legal guarantee of 100 days of wage employment in a financial year to every rural household.
- b) To create durable assets and thereby to strengthen the rural livelihood resource base.
- c) To ensure minimum wage to both male and female workers.

Other potential benefits of MGNREGA are,

- i) Focusing on Inclusive growth:- Gender equity, social inclusion of weaker section, financial inclusion.
- **ii) Regeneration of natural resources**:- Impact on agriculture productivity, ground water recharge, aforestation, fishery.
- **Livelihood Security & Human development Indent**: arresting migration, ensuring food security, universalisation of primary education, health awareness.
- **iv) Good governance**: More power to Local Self Government, people's participation in monitor ing and transparency, IT enabled e-governance.

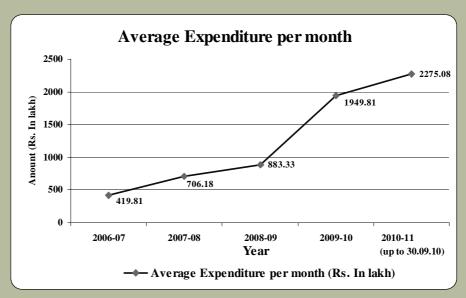
#### **Background**

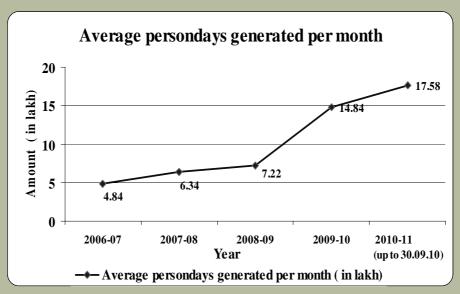
NREGA was launched in this district on 2<sup>nd</sup> February, 2006. In the initial year emphasis was given on IEC, training, holding meetings at village level, wall writing, distribution of leaflets, orientation of Panchayat functionaries and staff. In the second year, i.e., in 2007-08, there were devastating floods in this district in three consecutive months and then NREGA acted pivotal role in reconstruction work. Schemes under this Act got momentum from the 3<sup>rd</sup> year onwards and there has been continuous rise in terms of financial progress, persondays generation, average number of personday provided per HH and number of HH to which 100 days employment was provided. The table below shows the increasing trend.

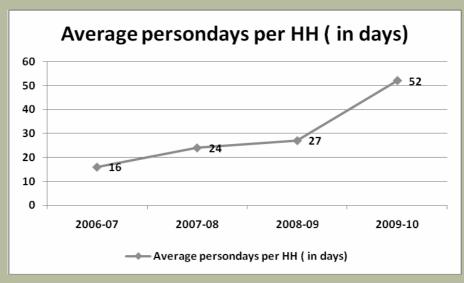
Human Development Report Paschim Medinipur

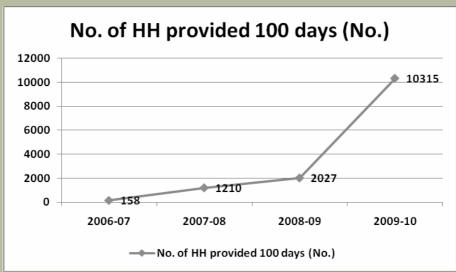
SI. No.	2006-07	2007-08	2008-09	2009-10	2010-11 (up to 30.09.10)
Expenditure (Rs.in lakh)	5037.72	8474.15	10600.00	23397.73	13650.50
Average Expenditure per month (Rs. In lakh)	419.81	706.18	883.33	1949.81	2275.08
Persondays generated ( in lakh)	58.03	76.10	86.69	178.12	105.50
Avg persondays generated ( in lakh)	4.84	6.34	7.22	14.84	17.58
Average persondays per HH ( in days)	16	24	27	52	30
No. of HH provided 100 days (No.)	158	1210	2027	10315	1406

Sourrce: MGNREGA Cell, Paschim Medinipur









#### Creation of assets

Paschim Medinipur district has two distinct characteristics in its western part and eastern part. Land in the western part is undulating, lateritic, water holding capacity is less. Agriculture in this part is mostly rainfed as a result most of the lands are monocrop. Per capita income of people living in this part is much lower in comparison to the district average. As a result, other indicators of human development like literacy rate, women literacy rate are poor and IMR, MMR are also high.





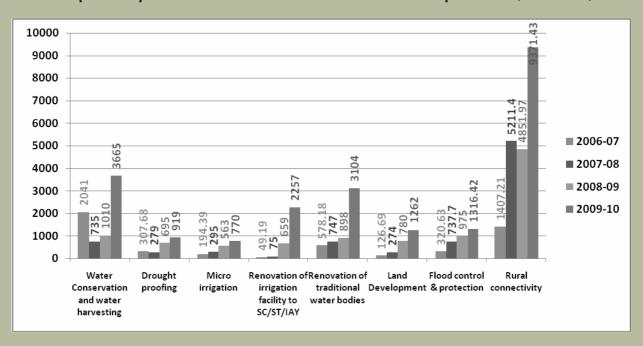
On the other hand, land in the eastern part of this district is alluvial and water retention capacity is high. This part is gifted with many major rivers and drainage channels. Most of the land is double or triple crop. But flood is a major problem in this area.

Considering the diversity in soil type, cropping pattern, provision of irrigation facility; a 5- year Perspective Plan has been prepared for the district. It has been decided that in the western part, emphasis would be given on schemes like excavation/re-excavation of ponds, aforestation and horticulture development, reclamation of waste land, developments of property belonging to SC/ST/BPL / Small & Marginal farmers. In the eastern part emphasis is given on renovation of traditional water bodies, flood protection, rural connectivity, and desiltation of irrigation canals, drainage channels. A well devised planning considering felt needs and seasonality has enabled to invest more and more on natural resources. The table below shows the trend.

#### **Year-wise and Sector-wise expenditure (Rs. in lakh):**

Year	Water Conservation	Drought proofing	Micro irrigation	Renovation of irrigation	Renovation of traditional	Land Develo-	Flood control &	Rural connec-
	and water	p. cog		facility to SC /	water bodies	pment	protection	tion
	harvesting			ST/ IAY				
2006-07	2041	307.68	194.39	49.19	578.18	126.69	320.63	1407.21
2007-08	735	279	295	75	747	274	737.70	5211.40
2008-09	1010	695	563	659	898	780	975	4851.97
2009-10	3665.00	919.00	770.00	2257.00	3104.00	1262.00	1316.42	9371.43
2010-11	2040	451	526	2205	2153	992	541	4393.72
(up to sept 10)								

#### **Graphical representation of Year-wise and Sector-wise expenditure (Rs. in lakh)**



#### **Participation of Women:**

Paschim Medinipur district has a rich heritage of SHG movement. There are 26205 SGSY groups in the district till December 2009. It was thought to harness this huge workforce for MGNREGA. At least one SHG was selected in each Gram Sansad. Criterion was Grade-I passed and at least one member of the group had passed class X. Thus, 3086 groups were selected. Instruction was given to Blocks and GPs that 1st April, 2009 onwards each and every scheme in the district should be supervised by SHG members. Management of schemes under MGNREGA by SHG members - was an experiment which was made for the first time in the State.

The empowerment of women of these SHGs becomes possible by their strong contact and association with different institutions and Govt. units like Block, Gram Panchayat, Bank and Post Office. Generally women SHGs are working as job supervisor under MGNREGA in this District. These groups are showing tremendous interest for linkage with other organizations and institutions. For their roles and responsibilities as Job supervisor under MGNREGA, they are taking field level decisions regarding scheme execution at Gram Sansad level. This is one remarkable achievement for the society. As economic improvement is happened through MGNREGA, so their basic needs for livelihood is being fulfilled and they are becoming confident enough to do work after improvement of their standard of living. In addition to this, SHG members are doing Muster Roll verification and Social Audit.





Participation of SHG members in MGNREGS has made sea change in many aspects like - awareness of people, women participation, transparency and accountability. These positive changes are reflected in terms of expenditures, average persondays generated per HH, implementation of IBS.

Apart from this, impact on women empowerment can be assessed after few years. During 2009-10, SHG members across the district earned Rs. 9.25 crore as remuneration for supervising schemes. Such a big amount is going in the hands of women belonging to SC / ST / BPL / Small & Marginal families which are used for basic minimum needs like child education, nutrition, and livelihood development. Women from backward section of the society are now regularly visiting Block & Panchayat offices, Banks, Post offices and interacting with Govt. officials, PRI members which gives them self confidence and self reliance.

#### **Empowering the weaker section**

Almost half of total population of this district either belongs to scheduled caste or scheduled tribe and majority of them are below poverty line. The primary cause of poverty of this section is that little amount of land or no land is owned by each family. Moreover classification of land owned by them is mostly 'Danga' (in the upper ridge) resulting in low crop yield or no crop. It was perceived that if lands belonging to SC/ST/BPL/LR beneficiaries/ Small & marginal farmers could be made cultivable by means land development or by providing irrigation facility, that would fetch additional income to those households besides earning wage employment.





Hence, special drive was given on identification of such schemes and its implementation. In 2009-10, one lakh blank application forms were printed centrally and were distributed among the target groups through SHG groups. Members of SHG groups visited each and every household and made them aware of the opportunity that MGNREGA brought to them and helped them to fill up forms. As such 65,000 applications were submitted in the district. SHG members were specially trained for implementation of these schemes including recording measurement. Impasses were removed to simplify the process of implementation and that showed good result. Schemes like land development, excavation/re-excavation of ponds, field bonding, removing sand were taken up.

The long term benefit of this endeavor will be reflected in coming years. Increase of agricultural production, decrease of cost of cultivation is the visible results. But the more important and more intruding benefit is upliftment of weaker section in the social strata.

#### **Reclamation of Natural resources**

Year	No. of scheme	Expenditure (Rs. in lakh)
2006-07	4048	5037.72
2007-08	7814	8474.15
2008-09	8915	10600.00
2009-10	19773	23397.73
2010-11 (up to sept'10)	12173	13650.50

Sourrce: MGNREGA Cell, Paschim Medinipur

#### Economic Livelihoods

The problem of fast depletion of underground water table is going to be a major threat to human civilization. Growing demand for installation of deep or mini deep tube-wells has increased the problem manifold. During summer, tube wells in many parts of this district become defunct because of decrease in water level. Even water becomes unavailable for household chores, bathing or feeding cattle.

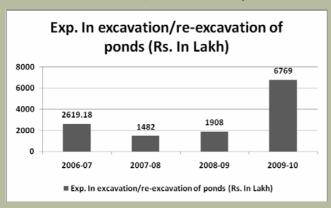


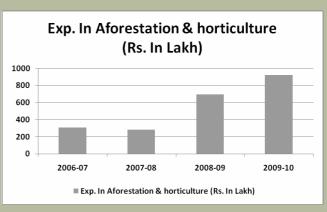


A substantial portion of the population of this district is dependent on forest for their livelihood. Collection of Sal leaves, Kendu leaves, collection of firewood, getting share of Forest Protection Committee (FPC) are the main activities from which they earn their livelihood. Secondly, it is conceived that development of horticulture will also open new arena of earning livelihood to the people living in the periphery of forest. Hence more emphasis has been given on schemes like excavation/re-excavation of ponds, canals, digging of 'Hapa' (small farm ponds), horticulture development and aforestation.

Year	Exp. in excavation/re-excavation of ponds (Rs. in Lakh)	Exp. in Aforestation & horticulture (Rs. in Lakh)		
2006-07	2619.18	307.68		
2007-08	1482.00	279.00		
2008-09	1908.00	695.00		
2009-10	6769.00	919.00		
2010-11 (up to Sept'10)	4193.00	451.00		

Sourrce: MGNREGA Cell, Paschim Medinipur





#### **Transparency & Accountability**

All the programme functionaries are accountable through continuous and concurrent evaluation and audit of the programme by internal as well as external evaluators. Beneficiary committee has been constituted in each and every village to supervise the quality of work. No payment is released without recommendation of this committee. In addition to this self help groups have been engaged for muster roll verification. They collect photocopies of MR from Gram Panchayat and visit households to verify whether labourers were provided employment as mentioned in MR. Also, regular inspection of schemes by district, sub-division, block level officials are done to ensure quality of schemes.



A grievance Redressal Mechanism has been set up at each GP, Block, Sub-division and district level to redress complaints. Moreover, any contravention of the Act shall be liable to fine, which may extend to Rs. 1000/-. Regular audit by Accountant General Audit and Chartered Accountant Firm audit is conducted to maintain checks on accounts and procedure. Apart from the above, the following steps also help to maintain transparency in the implementation

- Wages are paid through accounts of labourersonly.
- Muster Rolls are kept at worksite for public scrutiny.
- Regular Social Audits are conducted by GP.
- Visit of National Level Monitors and State Level Monitors.
- Display of proactive disclosure at GP/ Block office.
- Coverage of media.



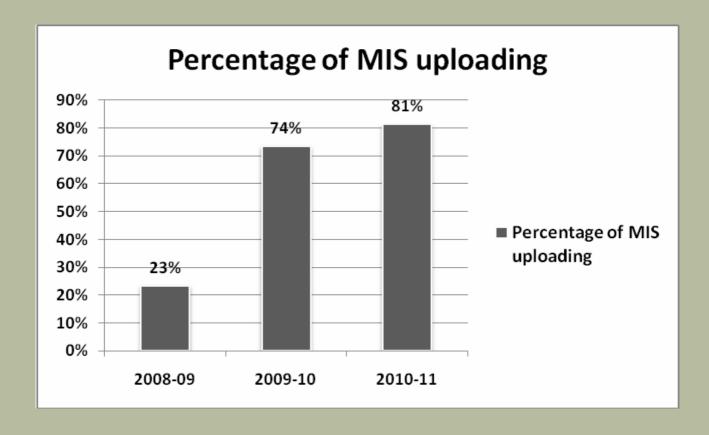


#### **Implementation of ICT & E-governance:**

Implementation of Management Information System (MIS) is one of the most important tool to ensure transparency in MGNREGA. No person has to ask for any information on MGNREGA. As a step to proactive disclosure all informations are made available in the website for public scrutiny. All the block offices of the district and half of Gram Panchayat offices are concerted through internet for faster communication and exchange of informations. This district has made commendable progress in uploading expenditure in website. In addition to this, GP-wise reports on expenditure, persondays generation, and other details are regularly uploaded in district MGNREGA website (www.nregapaschimmedinipur.com ) for dissemination of information to political parties, media and citizens.

Year	Actual Expenditure (RS. in lakh)	Expenditure uploaded in MIS (RS. in lakh)	Percentage of MIS uploading
2008-09	10600	2468.66	23%
2009-10	23397.73	17223.31	74%
2010-11			
(up to 30.9.10)	13650.5	11100.1	81%

Sourrce: MGNREGA Cell, Paschim Medinipur



#### Problems faced because of Left Wing Extremism (LWE)



There are 104 Gram Panchayats in 11 LWE blocks of this district. Out of those GPs, 13 Gram Panchayats are defunct and 21 Gram Panchayats functions irregularly.

69 Gram Panchayat and Panchayat Samity members including Pradhans have either submitted resignation or have been murdered or kidnapped or are not traceable. Pradhans, Sabhapatis of Panchayat Samities, Members of G.P. and P.S. can not attend office regularly. As a result, PRI bodies can not discharge their responsibilities in implementation of MGNREGA like preparation of plan, monitoring & supervision, payment to labourers etc. Gram Unnayan Samities (GUS), which function as beneficiary committees at village level are defunct at many places. Many members of GUS have left their villages. Frequent strikes, road blockades, terrorist activities disrupt normal life. In last one year and four months normal life was suspended for 272 days out of 485 days. Staff can not attend office regularly. Normal functioning of BDO Offices and Gram Panchayat offices is hampered.

Banks do not open regularly. If opens, usually goes dry. Though fund is transferred to GPs account through RTGS, but banks express inability to deliver cash to GPs. As Banks, Post offices, PACs remain closed frequently, Blocks & GPs face problem in depositing wages to accounts of labourers. These create severe problems in wage payment. As a result, blocks & Gram Panchayats become apprehensive to start new schemes. In some pockets Maoists threat PRI members, Gram Panchayat and block staff to release payment against Muster Rolls submitted by them. Technical staff fears to go to sites for measurement. Apprehension of signing fudged Muster Rolls makes them reluctant to take proactive role.

#### **Conclusion**

The benefit of MGNREGA is not limited to supplementing wage income of the rural poor but it extends to other socio-economic factors. The most important of which is that MGNREGA has imbibed sense of security and self-reliance in the hitherto vulnerable section of the society. Now, people are confident that if they are in need of employment, they can demand job to the Gram Panchayats and exercise the right given to them by Legislature. Human resource development and development of natural resources go side by side for a better and signing society.

#### Wage Employment Programme through MGNREGA

With the guarantee of demand driven fund allocation, this scheme opens up tremendous possibilities of creating a livelihood resource base of the rural poor. Works for water and soil conservation, drought proofing, flood protection, afforestation and rural roads have been taken up under the programme. For the district as a whole road connectivity is the highest priority to work upon in terms of percentage of expenditure under MGNREGA. For Salboni, Binpur I and Binpur-II blocks, however, renovation of traditional water bodies got the highest priority over other sectors followed by rural connectivity which remains, of course, to be the sector accounting for percentage of expenditure under MGNREGA.

By the end of the financial year 2008-09, total number of 739875 job cards was issued. Among them, 3.20 lakh demanded and were provided employment during this financial year. 86.69 lakh persondays of employment were generated.

In terms of the average person-days created per household the performance of the district does not look so good. The number of persondays of work provided per household (by those households who demanded work) was 27 days on an average in 2008-09. There is a considerable variation across blocks in terms of average person-days per household. Garhbeta-III recorded during 2008-09 the highest number of personsdays of employment (43) followed closely by Garhbeta-I (42), Garhbeta-II, Daspur-II and Narayangarh (35 each), Gopiballavpur-I and Nayagram (31 each) and Ghatal (30). The performance of Mohanpur block was very poor, where, on an average, only 11 persondays of employment were provided to households. Participation of women in NREGA works has been low in most of the blocks of the district. Person-days generated for the women accounted for 25 per cent of total person-days generated in the district as a whole during the financial year 2008-09, when the desired norm is that at least one third of the beneficiaries will be women. Percentage of women participation in MGNREGAs was highest in Narayangarh followed by Garhbeta-I, Daspur-II and Nayagram. The share of the scheduled caste and scheduled tribe population in getting employment under MGNREGA was 53.59 per cent.

Out of 29 blocks in Paschim Medinipur district only 8 blocks, namely Daspur-I, Daspur-II, Ghatal, Debra, Chandrakona-II, Chandrakona-II, Sabong and Pingla which perform well in respect of values of human development index (Table 1. 21 of Chapter I is referred back) could provide 30 or more days of work on an average. Performance of MGNREGS in terms of person-days per household is very poor with average person-days less than 20 in 8 blocks of the district, namely Binpur-II, Jhargram, Debra, Keshiary, Kharagpur-I, Mohanpur and Salboni most of which (excepting Debra) also performed low in terms of human development index (the same table of Chapter I is referred back). The blocks which performed better also showed considerable intra-block differences.

Table 5.27 Performance of MGNREGA in Blocks of Paschim Medinipur District, 2008-09

Block	Cumulative No. of HH issued Job Cards	Cumulative No. of HH demanded employment	Cumulative persondays generated (in lakhs)		No. of HH which are beneficiary of land reform / IAY	No. of disabled beneficiary individuals	Persondays per household (in Number)		
			Total	Women					
Medinipur	27102	14943	3.84	1.09	3777	498	26		
Salboni	31380	1 <i>7</i> 851	2.84	0.84	986	132	16		
Garhbeta I	23170	13068	5.53	1.66	1794	38	42		
Garhbeta II	20943	9983	3.48	1.31	7225	128	35		

Block	Cumulative No. of HH issued Job Cards	Cumulative No. of HH demanded employment	Cumulative persondays generated (in lakhs)		No. of HH which are beneficiary of land reform / IAY	No. of disabled beneficiary individuals	Persondays per household (in Number)
			Total	Women			
Garhbeta III	17084	5120	2.2	0.6	1265	1	43
Keshpur	37672	16919	4.62	0.45	5313	168	27
Kharagpur I	23034	4567	0.74	0.33	691	28	16
Kharagpur II	26542	9698	2.48	0.82	1071	207	26
Dantan I	26948	13575	3.74	1	3464	479	28
Dantan II	22085	4047	1.15	0.13	540	18	28
Narayangrah	36562	20657	7.14	2.19	8252	214	35
Pingla	25649	9359	2.49	0.55	3152	14	27
Mohonpur	15906	4582	0.64	0.07	479	13	14
Keshiary	23895	8590	1.59	0.58	0	2332	19
Sabang	45028	18964	5.43	0.99	877	246	29
Debra	33931	16170	3.14	1.02	3369	43	19
Jhargram	31763	10958	2.06	0.58	1369	28	19
Binpur I	30486	10367	2.33	0.61	151	13	22
Binpur II	35502	14598	2.42	0.75	36	8	17
Gopiballavpur I	18911	3986	1.22	0.48	25	49	31
Gopiballavpur I	15543	5156	1.08	0.3	470	15	21
Jamboni	21554	9155	2.06	0.64	905	119	23
Nayagram	26122	12678	3.96	1.24	3652	60	31
Sankrail	19084	8896	1.56	0.52	422	4	18
Ghatal	26174	15717	4.73	0.51	601	9	30
Chandrakona I	16157	7230	1.67	0.29	428	46	23
Chandrakona II	13558	6770	1.58	0.18	218	23	23
Daspur I	23927	12594	3.7	0.85	882	144	29
Daspur II	24163	13555	4.71	1.47	959	79	35
Grand Total	739875	319753	86.7	22.12	53742	5156	27

Sourrce: MGNREGA Cell, Paschim Medinipur District

Table 5.28 shows block wise figures on average persondays created per household and percentage of utilization of MGNREGS funds. Most of the blocks performed well in terms of utilization of MGNREGA funds, even though inter-block differences are observed. According to the figures for 2007-08 MGNREGA fund utilization across the district varied from 98 per cent in Narayangarh block and 67 per cent in Binpur-I block. During the next financial year it varied between 96 per cent (in Narayangarh and Kharagpur II) and 76 per cent (Jamboni). There is positive relationship between mandays of employment generated under MGNREGA and the rate of fund utilization but the correlation coefficient is not satistically significant.

#### Economic Livelihoods

The main reason for low average person-days at the block / GP level, according to some, is that GPs are not able to develop adequate number of schemes to absorb the labour who demand work under MGNREGS. Since MGNREGS is supported to be a demand-driven programme (demand for funds should come from the Gram panchayat), it is apparent that the GPs can hardly develop enough number of schemes to provide employment to all who demand employment.

MGNREGS is expected to be better implemented in places with large number of agricultural labourers or poor households, since working opportunities of the agricultural labourers or poor people are subject to seasonal variations. However, there is no significant correlation between number of persondays created under MGNREGA and proportion of agricultural labourers across the district.

MGNREGS is also expected to create more number of days of work in places with higher concentration of poor people. Again, there is no significant correlation between the average number of persondays per household and percentage of BPL households in blocks of the district. If distribution of funds across PRIs is not strictly related to the number of households demanding employment under MGNREGA, areas with higher demand for work due to poverty are likely to end up with fewer days of work. Furthermore, poor people in poverty stricken areas may not be able to take advantage of MGNREGS because of the lack of physical capacity to work or urgency to take works other than under MGNREGA to get immediate payment of wages which is not possible under MGNREGA which takes at least 10 days for payment of wages to the MGNREGA workers.

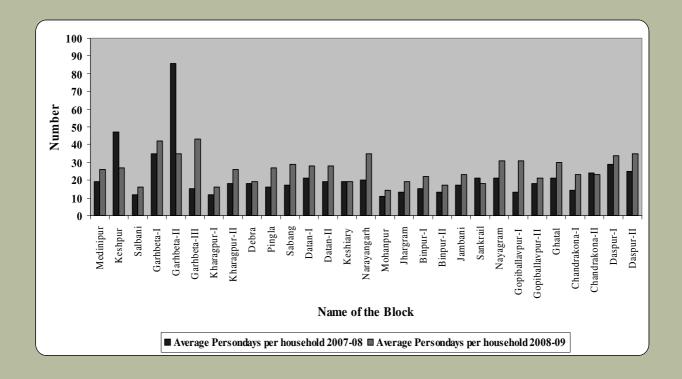
Table 5.28 Average Persondays per Household and percentage utilization of funds in the Blocks of Paschim Medinipur District in MGNREGA, 2007-08 and 2008-09

Block	Average Persondays per household 2007-08	Percent of utilization 2007-08	AveragePersondays per household 2008-09	Percent of utilization 2008-09
Chandrakona-I	14	84	23	91
Chandrakona-II	24	91	23	89
Daspur-l	29	93	34	84
Daspur-II	25	92	35	95
Ghatal	21	93	30	90
Binpur-I	15	67	22	85
Binpur-II	13	95	17	89
Gopiballavpur-l	13	90	31	83
Gopiballavpur-II	18	90	21	92
Jambani	17	90	23	76
Jhargram	13	93	19	87
Nayagram	21	85	31	88
Sankrail	21	86	18	78
Datan-I	21	87	28	92
Datan-II	19	86	28	93
Debra	18	92	19	94
Keshiary	19	88	19	86
Kharagpur-I	12	76	16	88
Kharagpur-II	18	86	26	96

Block	Average Persondays per household 2007-08	Percent of utilization 2007-08	AveragePersondays per household 2008-09	Percent of utilization 2008-09
Mohanpur	11	78	14	82
Narayangarh	20	98	35	96
Pingla	16	76	27	84
Sabang	17	81	29	89
Garhbeta-I	35	90	42	89
Garhbeta-II	86	86	35	86
Garhbeta III	15	83	43	95
Keshpur	47	85	27	81
Medinipur	19	92	26	91
Salbani	12	88	16	85

Source: NREGA Cell, Paschim Medinipur District

Figure 5.11 Average Persondays per household 2007-08 and 2008-09



#### CASE STUDIES ON WATERSHED

# Watershed project under NREGA at Narayanpur village under Rasakundu Gram Panchayat of Garhbeta-III block

- ✓ For management of Naranpur Adibasi Bandh i.e., watershed there is a 12 member committee. In this committee there are 6 SHG members and 6 user's group members.
- ✓ Number of total families benefited from watershed is 150 including 70 ST and 25 SC families.
- ✓ This committee provides following services- irrigation support, land leveling, nursery maintenance, plantation programme, fertilizer sale at government fixed price rate, pond excavation, providing loan for purchase of goat, pig to the beneficiaries, promote for saving practice of Adibasi peoples.
- ✓ Stored water in watershed available only for 6 months.
- ✓ Before watershed there is no practice of groundnut cultivation only practice of Til cultivation. But presently there have been groundnut cultivation in 100 acre land. Due to watershed farmers are diversifying in crop cultivation.
- ✓ Crop cultivated area is increased.
- ✓ To irrigate potato land for last 2-3 times there is scarcity of water and farmers face problem.
- ✓ Water level of watershed is rapidly decreased due to water lifting by surrounding mini and heavy deep tube well.
- ✓ The depth of watershed is low; there is possibility to excavate more.
- ✓ Before watershed development local people were forced to migrate to other places for work but now it is very low.



#### **5.4.3 Poverty Alleviation**

Poverty among people is a complex and comprehensive phenomenon, not only related to income but also to social, political and environmental factors (Joseph 2007). The Rural Household Survey conducted by the Department of Panchayats and Rural Development, Government of West Bengal in 2005 provides information on total number of families and families below the poverty line at a highly disaggregated level (viz. the Sansad level). The percentage of BPL families across blocks is presented in Table 5.29 which shows that percentage of BPL households in Paschim Medinipur district was 44%. The rural poverty ratio in the district varies widely across 29 blocks, the highest being registered for Nayagram block (69.26 per cent) followed by Binpur-II (68.59 per cent) and Jamboni (67.11 per cent), the lowest being recorded for Daspur II block (20.29 per cent). There are eighteen blocks such as Jhargram, Mid. Sadar, Dantan-I, Gopiballavpur-II, Binpur-I, Dantan-II, Keshiary, Chandrakona-I, Gopiballavpur-I, Chandrakona-II, Narayangarh, Keshpur, Ghatal, Sabang, Garhbeta-I, Salboni, Debra, Garhbeta-III where the percentage of BPL households belong in the moderate class (> = 25 % to < 50 %) where as only six blocks such as Khargpur-I, Khargpur-II, Sankrail, Garhbeta-II, Pingla, Mohonpur belong in the higher class (> = 50 % to < 60 %).

Table 5.29 Percentages of BPL Families after 1<sup>st</sup> revision by Blocks in Paschim Medinipu District, 2005

Sub-division	Block	BPL % with respect to total households 2005	Rank	Sub-division	Block	BPL % with respect to total households 2005	Rank
Jhargram	Nayagram	69.26	1	Kharagpur	Keshiary	46.89	16
Jhargram	Binpur-II	68.59	2	Ghatal	Chandrakona-I	44.21	17
Jhargram	Jamboni	67.11	3	Jhargram	Gopiballavpur-I	42.45	18
Kharagpur	Kharagpur-I	58.56	4	Ghatal	Chandrakona-II	41.84	19
Kharagpur	Kharagpur-II	53.57	5	Kharagpur	Narayangarh	41.60	20
Jhargram	Sankrail	51.33	6	Mid. Sadar	Keshpur	39.90	21
Mid Sadar	Garhbeta-II	50.76	7	Ghatal	Ghatal	38.86	22
Kharagpur	Pingla	50.51	8	Kharagpur	Sabong	37.37	23
Kharagpur	Mohanpur	50.16	9	Mid Sadar	Garhbeta-I	36.87	24
Jhargram	Jhargram	49.02	10	Medinipur Sadar	Salboni	36.11	25
Medinipur Sadar	Medinipur	48.90	11	Jharagpur	Debra	33.76	26
Kharagpur	Datan-I	48.81	12	Medinipur Sadar	Garhbeta-III	31.95	27
Jhargram	Gopiballavpur-I	47.72	13	Ghatal	Daspur-I	22.86	28
Jhargram	Binpur-I	47.46	14	Ghatal	Daspur-II	20.29	29
Kharagpur	Dantan-II	46.97	15	-	-	-	-

Source: Rural Household Survey, 2005

The survey was conducted on 12-point score basis using the questionnaire devised for rural households on (i) nature of land they hold, (ii) types of houses they live in, (iii) number of cloths the members per capita wear, (iv) nature of food security, (v) ownership of consumer goods, (vi) level of education, (vii) the type of labour in the household, (viii) means of livelihood, (ix) status of 9-14 year children on education, (x) nature of loan taken, (xi) reasons for out migration of the principal earner of the household, and (xii) types of distress of the household, following mainly the methodology adopted by the NSSO. Each of the 12 points carrying a maximum score of 5 each aggregating 60. If the score of a household is equal to or below 33, the household is deemed to be living below poverty line (BPL).

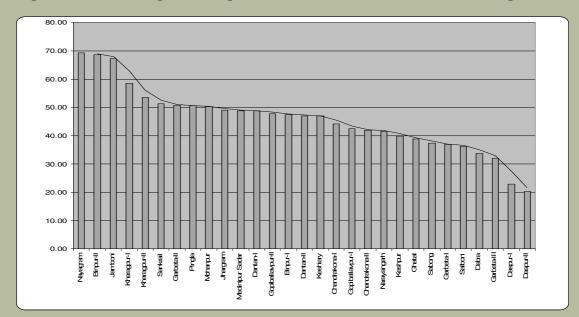


Figure 5.12 BPL % age with respect of total households of Paschim Medinipur, 2005

The 29 blocks of the district are classified into four categories based on the poverty ratio, namely low (below 25 percent of rural population below poverty line), moderate (25 to 50 per cent poor), high (50 to 60 per cent poor) and very high (above 60 per cent poor). Only two blocks, namely Daspur I and Daspur II belong to the low category, 18 blocks out of 29 belong to the moderate category, 6 blocks to the high category and 3 blocks, namely Binpur II, Nayagram and Jamboni belong to the very high category (Table 5.29). The first three high poverty blocks belong to the drought prone area of Paschim Medinipur district.

Table 5.30 Frequency Distribution of Blocks by Percentage of Rural Poverty, 2005

Low ( > Less than 25 per cent)	Moderate (25 to 50 per cent)	High (50 to 60 per cent)	Very High (Above 60 per cent)	Total
2 Daspur II, Daspur I	18 Jhargram, Mid. Sadar, Dantan-I, Gopiballavpur-II, Binpur-I, Dantan-II, Keshiary, Chandrakona-I, Gopiballavpur-I, Chandrakona-II, Narayangarh, Keshpur, Ghatal, Sabang, Garhbeta-I, Salboni, Debra, Garhbeta-III	6 Khargpur-I, Khargpur-II, Sankrail, Garhbeta-II, Pingla, Mohonpur	3 Nayagram, Binpur-II, Jamboni	29

Source: Rural Household Survey, 2005

The incidence of poverty is higher among the disadvantaged population, who are also generally over-represented in the class of agricultural labourers.



Map - 5.3 Distriburion of BPL Families in Paschim Medinipur District

#### 5.5 Livelihood Strategies at the Household Level

One of the limitations of the Census data is that it classifies workers into two exclusive categories-main workers and marginal workers. But the experience in the developing world as revealed by Alice Thorner and also by the National Sample Survey is that the same person is engaged in a principal activity while doing a secondary work at the same time. This is one of the livelihood strategies of the workers in the developing countries.

Based on access to a set of assets, households allocate labour to different activities to produce outcome such as income, food security, and investment spending. The allocation of labor to a particular activity may be a short run response to make up income deficits due to an economic shock or to obtain liquidly for investment, may be an active attempt to manage risk through diversification of activities, or may be part of a long-term strategy to improve household well-being. For these reasons, at a given point of time households may have a diverse portfolio of economic activities.

Seasonal migration is relatively more common among male labourers as compared to female labourers. A significant number of sample households from 15 sample villages of Pascim Medinipur district are found to be involved in 'tied labour' or 'tied harvest' arrangements. These arrangements emerge from the debt traps that many smallholders enter into during the dry seasons when they borrow money / paddy from landlords to whom they pledged their labour and/ or produce at well below the money / paddy from landlords to whom they pledged their labour and / or produce at well below the market rates (Bharadwaj 1985). It is also a method by which landlords secure cheaper workers and traders secure a reliable supply of produce (see Harriss 1992, Brass 1993, 1995). These arrangements in effect tie labourers down to their lenders and limit their ability to commoditize their labour power freely; hence the name 'unfree' or 'tied'.

#### Economic Livelihoods

Seasonal migration has been a significant livelihood strategy in Paschim Medinipur district. Drought of course is the main reason for such migration, but under-investment in irrigation further amplifies the problem (also see Breman 1996, Rao).

Recent evidence suggests that although the 'permanent attachment' or 'bondage' is on the decline, the 'non-permanent attachment' is on the rise, especially in dry regions of the country (see also Jodhka 1994, Subramaniam and Reddy 1994)

In our field survey of 300 households in 15 sample villages in ecologically diverse regions some of which are relatively developed and some relatively backward, we observe that in the relatively developed three villages of Daspur I, Daspur II and Sabong blocks household workers pursue agriculture as main activity in most cases while doing household industry activities or transport services or personal services as marginal activities. In relatively backward villages of Keshiary, Jamboni and Nayagram blocks, workers, while doing agriculture related work as principal activity, are engaged in babui rope making; kendu and sal leave and wood collections. Large extent of population also migrate to relatively developed area for agriculture and construction works.

**Table 5.31 Principal and Subsidiary Activities of Workers in Sample Villages** 

Villages	Principal Activity	Secondary Activity
Kashinatpur	Cultivation	Agl. Labour, Goldsmith
Nijampur	Cultivation including horticulture	Jari work, loading and unloading of brick, sand materials by by-cycle, agricultural labour and goldsmith work in other states
Singdhui	Agricultural labour	Cultivation
Talda	Cultivation	Mat making
Murakata	Cultivation	Basket making & Bamboo crafts
Parihati	Agricultural labour	Cultivation
Naranpur	Agricultural labour	Salpata Making
Muradanga	Casual labour work, construction work (Masson work and Road work), loading and unloading work in F.C.I., work in rice mill, and business.	Agricultural labour
Tangur	Shell collection, agricultural labor	Lease cultivation.
Uttar Simulia	Casual labour in Bali Khadan	Agricultural labour
Chandanpur	Cultivation	Agricultural labour, transport work, business.
Jhakra	Cultivation	Agricultural labour
Bilasbar	Cultivation	Agricultural labour
Balijuri	Agricultural labour	Construction work (helper of masonry work), Salpata Making
Radhanagar	Agricultural labour	Construction work

Source: Sample survey during the study period, 2009

While Census of India records both main workers and marginal workers and National Sample Survey registers workers on principal and subsidiary status basis the livelihood strategies of most of the households include doing double or multiple economic activities or pursuing multiple economic livelihoods.

Our analysis of secondary and primary data, confirms the importance of rural non-agriculture activities in the livelihood strategies of rural households. The analysis also shows clear links between key assets and the activity choice and level of income from different economic activities. In particular, we find that land access is linked to greater agricultural production and less participation in agricultural wage and non-agriculture wage. Higher levels of education appear to be most closely linked to non-agricultural wage employment. This relationship is found to strengthen as the areas develop, presumably with the expanding importance of the rural non-agricultural economy. Like education, infrastructure is closely linked to non-agricultural self-employment, since this provides access to markets and input for production.

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#### 5.6 Economic livelihood Indicators and Construction of Economic Livelihood index (ELI)

- We have examined different economic livelihood indicators to help us to construct economic livelihood index.
- Foodgrains productivity is a good indicator which influences level of living by providing food security.
- Work participation rate is also an important indicator. But we find that it is significantly influenced by marginal workers, the correlation between work participation rate and percentage of marginal workers to total workers being 0.737 which is statistically significant at 1 per cent level. Percentage of non-margrinal workers (NMW) to total workers is an important indicator.
- Percentage of above poverty line (APL) families indicates not only the living standard but also the asset possession of the households. It is a useful indicator.
- Thus, we adopted foodgrains productivity, percentage of non-marginal workers and percentage of households above poverty line as useful and significant indicators for the construction of economic livelihood index.
- Economic livelihood index based on equal weightage of foodgrains productivity index, percentage of non-marginal workers index and APL index has been prepared.
- Daspur II ranked first in terms of economic livelihood index followed by Daspur I, Chandrakona II, Ghatal and Debra. Binpur-II registered the lowest 29<sup>th</sup> rank led by Jamboni, Nayagram and Binpur-I which belong to agriculturally lagging and ecologically adverse region of the district.

**Table 5.32 Economic Livelihood (EL) Indicators** 

Block	Food grains Productivity (FGP)	Percentage of Non-Marginal Workers (NMW)	Percentage of Above Poverty Line Families (APL) 1-bpl	FGP Index	APL Index	ELI (FGP+NMW +APL Indices)	Rank
Chandrakona-I	3.27	89.90	55. <i>7</i> 9	0.25	0.36	0.50	6
Chandrakona-II	3.14	94.70	58.16	0.24	0.40	0.52	3
Daspur-I	5.17	90.90	77.14	0.46	0.67	0.68	2
Daspur-II	4.79	94.90	79.71	0.42	0.71	0.69	1
Ghatal	4.22	77.40	61.14	0.36	0.44	0.51	4
Binpur-I	2.72	61.69	52.54	0.21	0.31	0.27	26
Binpur-II	2.92	48.18	31.41	0.19	0.01	0.21	29
Gopiballavpur-I	2.14	70.36	5 <i>7</i> .55	0.13	0.39	0.39	17
Gopiballavpur-II	2.59	73.37	52.28	0.18	0.31	0.40	15
Jamboni	2.53	53.30	32.89	0.17	0.03	0.23	28
Jhargram	3.15	54.82	50.98	0.14	0.29	0.31	25
Nayagram	2.22	58.61	30.74	0.24	0.00	0.26	27
Sankrail	2.78	58.49	48.67	0.20	0.26	0.33	24
Dantan-I	2.97	74.94	51.19	0.16	0.30	0.39	16
Dantan-II	3.69	68.84	53.03	0.30	0.32	0.42	14
Debra	4.40	65.76	66.24	0.38	0.51	0.50	5
Keshiary	2.16	65.44	53.11	0.13	0.32	0.36	21
Kharagpur-I	3.33	75.24	41.44	0.26	0.15	0.38	18
Kharagpur-II	3.21	62.21	46.43	0.25	0.23	0.35	23
Mohanpur	4.75	75.32	49.84	0.42	0.28	0.47	7
Narayangarh	2.06	62.86	58.40	0.12	0.40	0.37	20
Pingla	4.62	65.48	49.49	0.40	0.27	0.43	12
Sabang	3.81	64.72	62.63	0.31	0.46	0.46	8
Garhbeta-I	2.54	68.97	63.13	0.17	0.47	0.43	11
Garhbeta-II	2.35	66.65	49.24	0.15	0.27	0.35	22
Garhbeta-III	2.43	64.37	68.05	0.16	0.54	0.43	10
Keshpur	2.75	74.07	60.10	0.19	0.42	0.44	9
Medinipur	2.36	70.24	51.10	0.15	0.29	0.37	19
Salbani	2.62	64.55	63.89	0.18	0.48	0.42	13

Source: Rural Household Survey, 2005, Paschim Medinipur

Census-2001. Paschim Medinipur

PAO, Deptt. of Agriculture, Paschim Medinipur

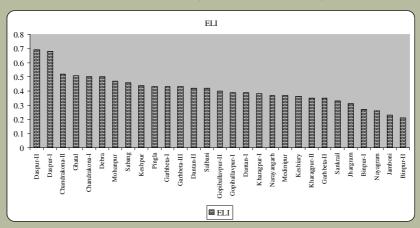


Figure 5.13 Economic Livelihood Index (FGP+NMW+APL) of Paschim Medinipur

Frequency distribution of blocks by value of economic livelihood index in Paschim Medinipur District shows that two blocks, namely Daspur-I and Daspur-II belong to the highest economic livelihood index class of 0.60 and above while fourteen blocks, namely Binpur-II, Nayagram, Binpur-I, Jamboni, Jhargram, Sankrail, Kharagpur-II, Garhbeta-II, Keshiary, Narayangarh, Medinipur, Kharagpur-I, Gopiballavpur-I & Dantan-I belong to the lowest economic livelihood class of below 0.40. Nine blocks, namely Gopiballavpur-II, Dantan-II, Mohonpur, Salboni, Garhbeta-I, Garhbeta-III, Keshpur, Sabang & Pingla belong to the economic livelihood class of 0.40 to 0.49 while four blocks, namely Chandrakona-I, Chandrakona-II, Ghatal & Debra belong to the economic livelihood class of 0.50 to 0.59 (Table 5.32).

Table 5.33 Frequency distribution of Blocks by Value of Economic Livelihood Index in Paschim Medinipur District, 2001

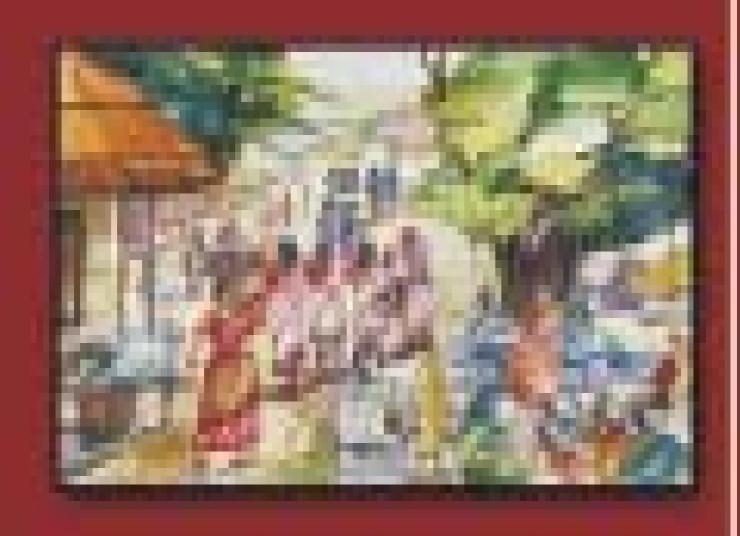
Class	Number of Blocks	Number of Blocks	%
Below 0.40	14	Binpur-II, Nayagram, Binpur-I, Jamboni, Jhargram, Sankrail, Kharagpur-II, Garhbeta-II, Keshiary, Narayangarh, Midnapore,	
		Kharagpur-I, Gopiballavpur-I & Dantan-I	48.28
0.40-0.49	9	Gopiballavpur-II, Dantan-II, Mohonpur, Salboni, Garhbeta-I, Garhbeta-III, Keshpur, Sabang & Pingla	31.03
0.50-0.59	4	Chandrakona-I, Chandrakona-II, Ghatal & Debra	13.79
0.60 and above	2	Daspur-I & Daspur I	6.90
Total	29		100.00

#### 5.7 Summary and Conclusions

We see a substantial variation of ELI across different blocks of the district and closer look reveals that this related to the development of agriculture, literacy and physical infrastructure. Provision of economic opportunity for all has always been important aspect of any attempt towards Human Development and this can be only achieved by developing the agriculture, increasing literacy and investing in the development of infrastructure.



# CHAPTER - VI GENDER DEVELOPMENT



## Chapter – VI Gender Development

"Women bear the brunt of human deprivation; poverty has a female face, women are 70 per cent of the world's absolute poor."

(Human Development in South East Asia, 1999)

#### 6.1 Introduction:

Advancement of women is an important economic and societal issue with a significant impact on the growth of nations. Gender equality is recognized as a key human development issue because of its intellectual proximity to the goals of universal human rights and social justice. According to United Nations (UN), women are not just the target of special measures to promote development. They are also the driving force to overcome poverty, reduce hunger, fight illiteracy, heal the sick, prevent the spread of disease and promote stability (UN, 2008). Gender equality and women's empowerment are considered to be a desirable byproduct of human development. Therefore, to achieve these goals, it is essential to close the gender equality and empowerment gaps in education, employment, and political participation (Kabeer, 2005).

Various development indicators substantiate that women lag behind men in most of the yardsticks that measure gender justice and human development, such as gender situation, pattern of literacy and education, health situation, work participation by females, participation in political process in the name of political empowerment, in the field of economic empowerment, status of women, Self Help Group formation etc. The present chapter discusses gender development including gender gap in literacy and work participation.

#### 6.2 Gender Literacy Differential in Paschim Medinipur

Literacy rate of women has always been identified as one of the most valuable economic as well social indicators for any society and community. During the period from 1981 to 2001 it has improved perceptibly across the district. There is, however, a persistent gender gap in literacy rate in Paschim Medinipur district. Among 4 sub-divisions of the district, the highest gender gap in literacy rate is found in Jhargram Sub-Division. High concentration of ST households and lack of proper socio-economic opportunities explain the phenomenon (Table 6.1).

Table 6.1 Gender Gap in Literacy Rate by Sub-Division in Paschim Medinipur District, 2001

Sub-Division	Male Literacy Rate	Female Literacy Rate	Gender Gap	Rural Literacy Rate	Urban Literacy Rate	Rural- urban gap	Rural male literacy Rate	Rural female literacy Rate	Rural gender gap
Ghatal	84.8	60.2	24.6	74.0	81.9	7.9	84.1	64.0	20.1
Jhargram	76.7	49.7	27.0	62.2	84.8	22.6	75.8	48.1	27.7
Kharagpur	83.9	62.6	21.3	72.1	81.3	9.2	83.1	60.6	22.5
Medinipur Sadar	78.1	56.3	21.8	64.9	84.1	19.2	64.9	52.8	12.1
District	81.3	59.1	22.2	68.7	82.4	13.7	68.7	56.8	11.9

Source: District Statistical Hand Book, 2004

#### Gender Development

In Jhargram sub-division, Nayagram block registers the highest gender gap in literacy rate. Daspur-II has the lowest gender gap in literacy rate followed by Chandrakona-I and Chandrakona-II. There are 15 blocks, namely Binpur I, Gopiballavpur I, Gopiballavpur II, Jhargram, Nayagram, Dantan-I, Kharagpur-I, Kharagpur-II, Narayagarh, Garhbeta I, Garhbeta II, Garhbeta III, Keshpur, Medinipur and Salboni where gender gap in literacy increased during 1981 to 2001. In Nayagram block the gap increased most by 4.72 percentage point, followed by Gopiballavpur-I and Medinipur Sadar block. Daspur-II is found to lessen the gender gap in literacy rate the most (Table 6.2).

Table 6.2 Gender Gap in Literacy in Blocks of Paschim Midnapore District, 1981 to 2001

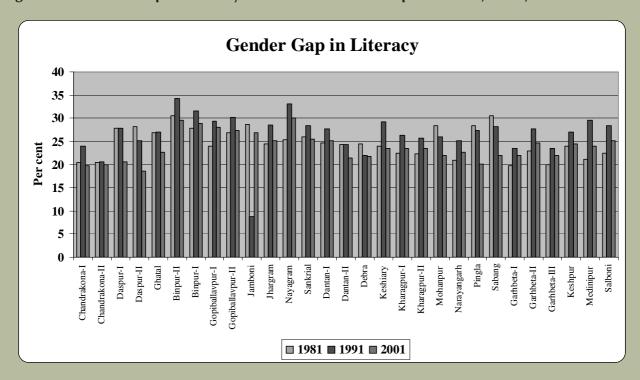
Sub-division	Block	1981	1991	2001	Change (1981-2001)
	Chandrakona-I	20.45	23.97	19.8	-0.65
Ghatal	Chandrakona-II	20.45	20.61	20.00	-0.45
	Daspur-I	27.84	27.81	20.60	-7.24
	Daspur-II	28.20	25.13	18.50	-9.70
	Ghatal	26.77	27.04	22.60	-4.17
	Binpur-II	30.58	34.34	29.60	-0.98
	Binpur-I	27.83	31.6	28.90	1.07
	Gopiballavpur-I	24.00	29.43	28.10	4.10
Jhargram	Gopiballavpur-II	26.89	30.25	27.40	0.51
	Jamboni	28.68	8.83	26.90	-1.78
	Jhargram	24.41	28.46	25.20	0.79
	Nayagram	25.28	33.10	30.00	4.72
	Sankrial	25.98	28.38	25.50	-0.48
	Dantan-I	24.67	27.68	25.10	0.43
	Dantan-II	24.31	24.27	21.40	-2.91
	Debra	24.39	21.88	21.80	-2.59
	Keshiary	23.96	29.28	23.50	-0.46
Kharagpur	Kharagpur-I	22.50	26.26	23.50	1.00
	Kharagpur-II	22.2	25.65	23.40	1.20
	Mohanpur	28.31	26.03	21.90	-6.41
	Narayangarh	21.00	25.22	22.70	1.70
	Pingla	28.33	27.31	20.10	-8.23
	Sabang	30.49	28.12	22.00	-8.49
	Garhbeta-I	19.75	23.41	21.90	2.15
	Garhbeta-II	22.89	27.65	24.70	1.81
Medinipur	Garhbeta-III	19.94	23.44	21.90	1.96
Sadar	Keshpur	23.99	27.02	24.40	0.41
	Medinipur	21.10	29.52	23.90	2.80
	Salboni	22.37	28.37	25.10	2.73

Source: Census of India 1981, 1991 and 2001



Map 6.1 Gender Gap in Literacy (1981 - 2001) in Paschim Medinipur District

Figure 6.1 Gender Gap in Literacy across Paschim Medinipur District, 1981, 1991 and 2001



#### Gender Development

During the period from 1991 to 2001 literacy rate among both SC and ST males and females improved significantly. Though both the communities lag far behind vis a vis general caste. In 2001, Sabong block had the highest percentage of SC male literate population (73.52) followed by Pingla (69.09) and Narayangarh (68.38), the lowest being registered in Gopiballavpur-I block (51.15). Sabong block had also the highest female literacy rate among SC female (49.64 per cent) followed by Dantan-II (46.19 per cent) and Narayangarh block (45.86 per cent), the lowest being registered in Gopiballavpur-I block (24.64 per cent). In the same year, Dantan-II block had the highest percentage of ST male literate population (68.41) followed by Binpur-I (59.71) and Jamboni (59.51), the lowest being registered in Daspur-I block (38.19). Binpur-II block had the highest female literacy rate (31.57 per cent) followed by Binpur-I (31.06 per cent), the lowest being registered in Mohanpur block (14.47 per cent). All this shows wide disparity in literacy rate among SCs and STs males and females (Table 6.3).

Table 6. 3 Literacy Rate among Scheduled Caste and Scheduled Tribe by Block , 1991 & 2001

(Per cent)

	1991				2001							
Block		SC			ST			SC			ST	
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Chandrakona-I	43.58	62.21	31.47	31.15	9.28	20.44	55.16	32.28	43.88	44.05	21.04	32.85
Chandrakona-II	46.94	24.62	36.05	36.67	20.11	28.77	52.05	29.08	40.74	44.92	19.70	32.65
Daspur-I	37.64	24.31	31.65	22.11	8.78	15.42	62.20	35.13	49.50	38.19	16.40	27.23
Daspur-II	47.65	23.38	35.72	24.39	12.30	12.35	61.45	42.28	51.63	41.88	23.41	32.32
Ghatal	49.81	23.58	36.95	36.02	14.58	25.36	62.12	36.93	49.65	44.17	19.85	32.11
Binpur-II	52.62	27.26	39.63	47.73	19.92	33.92	63.21	35.38	49.48	58.58	31.57	45.06
Binpur-l	43.78	17.49	30.95	49.75	21.28	35.58	54.23	26.07	40.46	59.71	31.06	45.38
Gopiballavpur-I	46.52	23.02	35.11	38.28	11.30	25.44	51.15	24.64	38.20	47.31	19.44	33.63
Gopiballavpur-II	49.29	23.26	36.07	52.54	20.30	36.19	56.85	28.91	43.18	54.99	25.99	40.70
Jamboni	75.72	70.84	72.66	<i>7</i> 5.5 <i>7</i>	66.13	70.98	63.83	37.64	51.02	59.51	30.72	45.31
Jhargram	41.32	18.56	30.16	41.01	16.60	29.07	54.64	30.65	42.70	52.77	25.93	39.61
Nayagram	46.11	19.90	33.29	40.16	14.17	27.16	53.09	27.30	40.15	44.41	21.10	25.27
Sankrial	50.67	23.69	37.44	49.71	23.38	36.31	57.44	32.62	45.15	56.38	29.52	43.09
Dantan-I	58.27	32.05	45.47	36.17	14.02	25.23	63.10	38.50	51.00	42.04	16.63	29.47
Dantan-II	64.30	39.92	52.62	41.60	22.22	32.23	68.27	46.19	57.68	68.41	19.40	32.82
Debra	59.65	38.20	49.43	47.18	26.48	37.28	65.34	41.17	53.28	53.07	25.45	39.37
Keshiary	57.92	31.16	44.58	46.37	21.52	34.23	63.39	41.10	52.46	55.77	29.31	42.73
Kharagpur-I	76.52	39.59	58.27	43.58	19.71	31.82	62.55	38.16	50.46	51.83	25.99	44.57
Kharagpur-II	54.94	30.09	42.65	43.22	16.54	29.98	60.46	36.90	48.79	50.59	23.72	37.22
Mohanpur	58.92	31.45	45.64	34.84	9.86	22.29	67.53	42.12	55.19	41.37	14.47	28.19
Narayangarh	66.16	42.11	54.80	47.21	20.67	34.21	68.38	45.86	57.37	49.52	23.78	36.85
Pingla	58.26	32.01	44.91	39.26	13.94	27.00	69.09	30.03	57.30	57.94	29.09	44.05
Sabang	62.88	40.98	52.32	43.52	17.28	30.92	73.52	49.64	61.98	54.02	26.13	40.55
Garhbeta-I	41.21	18.40	30.08	31.66	9.05	20.36	52.38	28.94	40.86	48.17	21.48	34.83
Garhbeta-II	42.50	21.84	32.40	49.22	20.80	34.60	52.57	29.48	41.14	57.54	30.42	43.93
Garhbeta-III	51.19	29.46	40.46	38.69	13.20	26.69	54.10	32.91	43.61	49.65	22.25	36.13
Keshpur	52.25	25.76	39.11	39.58	14.43	27.13	61.39	33.98	47.96	46.36	17.64	32.04
Medinipur	41.50	17.65	29.35	33.10	11.59	22.48	54.26	29.15	41.87	44.50	20.87	32.75
Salboni	41.02	18.73	30.03	38.97	12.76	26.01	57.71	33.18	45.65	54.27	26.50	40.60

Source: Census of India 1991 and 2001

There is also a substantial gender gap in literacy rate among SC and STs. In 1991, this gap was highest among SCs in Kharagpur I (36.93 percentage point), followed by Sankrail (26.98 percentage point), the lowest being registered in Jamboni (4.88 percentage point) led by Daspur-I (13.33 percentage point). In 2001, this gap was highest among SCs in Pingla (39.06 percentage point), followed by Binpur-I (28.16 percentage point) and Gopiballavpur-II (27.94 percentage point), the lowest being registered in Daspur-II (19.17 percentage point). The gender gap in literacy among SCs increased in 17 blocks including Jamboni (by 21.31 percentage point), Daspur-I (by 13.74 percentage point) and Pingla (by 12.91 percentage point).

The literacy gap among STs in 1991 was highest in Gopiballavpur-II (32.24 percentage point), followed by Binpur-I (28.47 percentage point), Garhbeta-II (28.42 percentage point), the lowest being registered in Jamboni (9.44 percentage point) led by Daspur-I (13.33 percentage point). In 2001, this gap was highest among STs in Dantan-II (49.01 percentage point) followed by Pingla (28.85 percentage point), Jamboni (28.79 percentage point) Keshpur (28.72 percentage point) and Binpur-I (28.65 percentage point), the lowest being registered in Daspur-II (18.47 percentage point). The gender gap in literacy among STs has increased in 23 out of 29 blocks including Dantan-II (by 29.63 percentage point) and Jamboni (by 19.35 percentage point) (Table 6.4).

Table 6.4 Gender Gap in Literacy among SCs and STs, 1991 to 2001 and Its Change

Block	SC			ST				
	1991	2001	Change	1991	2001	Change		
Chandrakona-I	18.63	22.88	4.25	21.87	23.01	1.14		
Chandrakona-II	22.32	22.97	0.65	16.56	25.22	8.66		
Daspur-I	13.33	27.07	13.74	13.33	21.79	8.46		
Daspur-II	24.27	19.17	-5.10	24.39	18.47	-5.92		
Ghatal	26.23	25.19	-1.04	21.44	24.32	2.88		
Binpur -II	25.36	27.83	2.47	27.81	27.01	-0.80		
Binpur-I	26.29	28.16	1.87	28.47	28.65	0.18		
Gopiballavpur-l	23.50	26.51	3.01	26.98	27.87	0.89		
Gopiballavpur-II	26.03	27.94	1.91	32.24	29.00	-3.24		
Jamboni	4.88	26.19	21.31	9.44	28.79	19.35		
Jhargram	22.76	23.99	1.23	24.41	26.84	2.43		
Nayagram	26.21	25.79	-0.42	25.99	23.36	-2.63		
Sankrial	26.98	24.82	-2.16	26.33	26.86	0.53		
Dantan-I	26.22	24.60	-1.62	22.15	25.41	3.26		
Dantan-II	24.38	22.08	-2.30	19.38	49.01	29.63		
Debra	21.45	24.17	2.72	20.70	27.62	6.92		
Keshiary	26.76	22.29	-4.47	24.85	26.46	1.61		
Kharagpur-I	36.93	24.39	-12.54	23.87	25.84	1.97		
Kharagpur-II	24.85	23.56	-1.29	26.68	26.87	0.19		
Mohanpur	27.47	25.41	-2.06	24.98	26.90	1.92		
Narayangarh	24.05	22.52	-1.53	26.54	25.74	-0.80		
Pingla	26.25	39.06	12.81	25.32	28.85	3.53		

Block		SC		ST			
	1991	2001	Change	1991	2001	Change	
Sabang	21.90	23.88	1.98	26.24	27.89	1.65	
Garhbeta-I	22.81	23.44	0.63	22.61	26.69	4.08	
Garhbeta-II	20.66	23.09	2.43	28.42	27.12	-1.30	
Garhbeta-III	21.73	21.19	-0.54	25.49	27.4	1.91	
Keshpur	26.49	27.41	0.92	25.15	28.72	3.57	
Medinipur	23.85	25.11	1.26	21.51	23.63	2.12	
Salboni	22.29	24.53	2.24	26.21	27.77	1.56	

Source: Census of India 1991 and 2001

Figure 6.2 Gender Gap in Literacy for SC

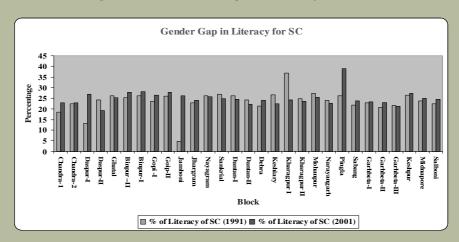
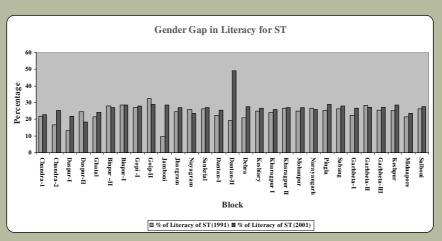


Figure 6.3 Gender Gap in Literacy for ST



#### 6.3 Gender Differential in Participation in Work Force

Engagement of women in workforce is recognized as a positive indicator of development as well as women's empowerment. In Paschim Medinipur district the wok participation rate for women is very low compared to men. While the share of male workers in total male population is 55 per cent, that of female workers is only 26 per cent as per 2001 Census. In the district there is a substantial gap among men and women in respect of main workforce. The proportion of women is more in marginal workforce and in the household industry. The percentage of female non-workers to female population in 2001 was 73.67, which was much higher than the male counterpart, The percentage of female workers engaged in household industry was higher than that of males in 2001 while that of other female workers was lower (Table 6.5).

Table 6.5 Work Participation Rate by Sex in Paschim Medinipur District, 2001

	Male	Female	Gender Gap
Participation in work (%)	55.18	26.33	28.85
Main Work force (%)	82.34	39.40	42.94
Marginal work force (%)	17.66	60.60	-42.94
Non-worker (%)	44.82	73.67	-28.85
Participation in Non-Agricultural Works (%)			
(a) Household Industry	3.48	16.88	-13.4
(b) Other workers	32.09	16.53	15.56

Source: Census of India 2001

The female work participation rate increased from 20.91 per cent in 1991 to 26.33 per cent in 2001. From the perceptibly increasing trend in work participation by women it is not clear whether the women view their engagement in income earning activities as a liberating opportunity or something that had to be undertaken on being forced by economic circumstances. Therefore we need to examine closely which factors have had influence on women's participation in the workforce. One way to go about it is to further analyse the composition of the workforce and try to understand the changes from different angles.

What is to be noted is that in Paschim Medinipur increasing work participation by women between 1991 and 2001 was associated with increasing share of marginal workers to total workforce. As noted in Chapter 5 earlier, by census definition marginal workers are those who do not work for major part of the year, which could either be due to lack of opportunity or other reasons. Higher work participation by women indicates that more women are engaged to income earning activities inside or outside the household, which is likely to have positive impact on their families' well-being. Although the decennial growth rate of the main female workers between two census years is 3.87 per cent per annum, the number of marginal female workers increased by a hopping 38.65 per cent per annum. As a result, the share of female marginal workers in total female workers increased from 34.13 per cent in 1991 to 60.60 per cent in 2001.

There is a rural-urban gap in female work participation. While in rural areas work participation rate in 2001 was 42.42 per cent, in urban areas it was 30.76 per cent. What is to be noted is that while the percentage of female main workers in total female population increased in urban areas it actually decreased in rural areas. If we further look into the distribution of workers into broad occupational categories, we find that between 1991 and 2001, the number of main female cultivators decreased from 74670 to 61404 (decrease by - 1.97 per cent per annum) and the number of main female agricultural labourers decreased

from 149064 to 127236 (decrease by -1.63 per cent per annum). This is enough to establish that a large number of women who are joining the workforce are not doing it out of choice. They are rather compelled by economic circumstances to accept the hardship.

Proportion of main male workers to total main workers increased from 79.05 per cent in 1991 to 82.00 per cent in 2001 while that of females registered decline from 20.95 per cent to 18.00 per cent. Percentage of main male and female cultivators, and agricultural labourers to total main male and female workers recorded decline during this period while that of household industry and other workers registered increase. Structure of main workforce changed during this period in favour of household industry workers, and 'other' workers and against cultivators and agricultural labourers for both males and females.

Proportion of male marginal workers to total marginal workers recorded increase from 16.07 per cent in 1991 to 38.85 per cent in 2001. Though the proportion of female marginal workers declined from 83.93 per cent to 61.15 per cent during this period it remained quite high in 2001 and it indicates that over 61 per cent of total marginal workers are females.

Main female cultivators and agricultural labourers registered negative growth rate (less than 1 per cent) during this period while 'other' female main workers registered annual growth rate of 3.50 per cent, which was less than 4.25 per cent, the annual growth rate of 'other' male main workers (Table 6.6).

Annual growth rate of total main workers was 6.82 per cent during 1991 to 2001 while that of main male workers (1.21 per cent) which was higher than that of main female workers (0.43 per cent). Main female cultivators and agricultural labourers registered negative growth rate (less than 1 per cent) during this period while other female main workers registered lower annual growth rate (3.50 per cent) than other male main workers (4.25 per cent). The very high rate of growth of marginal workers relative to that of main workers in both urban and rural areas across sexes indicates increasing marginalization of work force of the district.

Agriculture still continues to be the main stay of rural female workers. Females have to compete with their male counterpart in the rural areas in gaining access to jobs in construction and other rural non-farm jobs.

Table 6.6 Proportion and Annual Growth Rate of Main and Marginal Male and Female Workers in Paschim Medinipur District, 1991 to 2001

Indicators	1991 total	Per cent	2001 total	Per cent	Annual growth rate (%)1991-2001
Main Male workers	1080754	79.05	2143813	84.73	9.84
Main female workers	286463	20.95	386299	15.27	3.49
Main male cultivators	553413	79.05	703116	84.73	2.71
Main female Cultivators	74670	20.95	61404	15.27	-1.78
Main male agricultural labourers	302348	40.48	489252	27.79	6.18
Main female Agricultural labourers	149064	5.46	127236	2.43	-1.46
Main male household industry workers	28647	22.11	79689	19.34	17.82
Main other male workers	196346	10.90	871756	5.03	34.40
Main other female workers	33942	2.10	130042	3.15	28.31

Indicators	1991 total	Per cent	2001 total	Per Cent	Annual growth rate (%)1991-2001
Marginal male workers	29303	14.36	535758	34.46	172.83
Marginal female workers	152987	2.48	685187	5.14	34.79
Marginal male cultivators			41000	43.88	
Marginal female cultivators			48000	56.12	
Marginal male agricultural labourers			83000	46.07	
Marginal female agricultural labourers			129000	53.93	
Marginal male household industry workers			17000	39.15	
Marginal female household industry workers			45000	60.85	
Marginal male other workers			21000	27.42	
Marginal female other workers			27000	72.58	

Source: Census of India, 1991 and 2001

The percentage of female workers to total workers was highest in Nayagram (48.00 per cent) with one of the lowest human development index followed by Sabong (45.60 per cent), Pingla (41.80 per cent) Jamboni (41.70 per cent) and Binpur-II (41.40 per cent) - the blocks with high percentage of SC and ST population and relatively low human development. Four blocks had percentage share of female workers in total workers below 20 per cent. These blocks are Mohanpur (13.30 per cent), Chandrakona-II (16.20 per cent), Ghatal (17.90 per cent) and Daspur-II (18.20 per cent) - all of which are general caste dominated and having relatively high value of human development index. The percentages of female main workers to total workers as cultivators, agricultural labourers and 'other' workers were all higher than those of males while the percentage share of female main household workers was higher than that of males in most of the blocks. On the other hand, the percentage share of female marginal workers to total workers was higher that of males and that is much more so for agricultural labourers and household industry workers (Table 6.7).

Table 6.7 Percentage share of Total Workers by Categories and Sex in Blocks, 2001

Blocks	Perce	entage		Pe	ercenta	ge of N	lain wo	rkers to	o Total	Worke	ers	
		otal	То	Total		vators	~	ultural		HI	Otl	_
	Wo	rkers					Labo	ourer	wor	kers	wor	kers
	М	F	М	F	М	F	М	F	М	F	М	F
Binpur-I	60.6	39.4	40.9	10.6	19.7	3.0	15.2	7.6	1.5	1.5	10.6	1.5
Binpur-II	58.6	41.4	38.6	10.0	15.7	2.9	10.0	4.3	2.9	1.4	10.0	1.4
Garhbeta-I	70.7	29.3	59.8	9.8	24.4	1.2	17.1	6.1	1.2	1.2	15.9	2.4
Garhbeta-II	62.3	37.7	52.5	14.8	26.2	3.3	14.8	8.2	1.6	1.6	11.5	1.6
Garhbeta-III	64.6	35.4	52.3	10.8	20.0	1.5	10.8	4.6	1.5	3.1	21.5	1.5
Chandrakona-I	79.1	20.9	67.4	7.0	34.9	2.3	18.6	2.3	2.3	2.3	11.6	2.3

### Gender Development

Blocks	Perce	entage		Pe	ercenta	ge of N	lain wo	rkers to	o Total	Worke	ers	
		otal	То	tal	Culti	vators	_	ultural		HI	Otl	
	Wo	rkers					Lab	ourer	WOI	kers	wor	kers
	М	F	М	F	М	F	М	F	М	F	М	F
Chandrakona-II	83.8	16.2	75.7	8.1	37.8	2.7	24.3	5.4	2.7	2.7	10.8	2.7
Ghatal	82.1	17.9	71.6	6.0	28.4	1.5	17.9	1.5	6.0	1.5	20.9	1.5
Daspur-l	69.4	30.6	63.9	13.9	25.0	5.6	12.5	2.8	4.2	1.4	22.2	4.2
Daspur-II	81.8	18.2	75.8	9.1	22.7	3.0	13.6	3.0	4.6	1.5	34.9	3.0
Keshpur	79.8	20.2	67.7	7.1	34.3	2.0	18.2	3.0	1.0	1.0	14.1	2.0
Salboni	63.0	37.0	50.7	13.7	23.3	2.7	13.7	6.9	1.4	1.4	12.3	1.4
Medinipur	69.4	30.7	58.1	12.9	16.1	1.6	17.7	6.5	1.6	1.6	21.0	3.2
Jhargram	60.6	39.4	45.1	9.9	16.9	2.8	11.3	5.6	1.4	1.4	15.5	1.4
Jamboni	58.3	41.7	41.7	12.5	12.5	2.1	12.5	6.3	2.1	2.1	14.6	2.1
Gopiballavpur-II	68.4	31.6	57.9	15.8	26.3	2.6	18.4	10.5	2.6	2.6	10.5	2.6
Gopiballavpur-I	65.0	35.0	55.0	17.5	22.5	2.5	17.5	12.5	2.5	2.5	10.0	2.5
Nayagram	52.1	48.0	41.1	17.8	17.8	2.7	9.6	4.1	4.1	6.9	8.2	2.7
Sankrail	61.2	38.8	46.9	12.2	22.5	2.0	14.3	6.1	2.0	2.0	8.2	2.0
Kharagpur-I	79.0	21.1	65.8	11.8	7.9	1.3	7.9	4.0	1.3	1.3	50.0	6.6
Kharagpur-II	66.7	33.3	49.3	11.6	17.4	1.5	14.5	7.3	1.5	1.5	17.4	2.9
Debra	63.5	36.5	50.4	15.7	17.4	2.6	13.9	9.6	1.7	0.9	17.4	2.6
Pingla	58.2	41.8	47.3	17.6	22.0	5.5	12.1	6.6	1.1	1.1	12.1	4.4
Sabong	54.4	45.6	44.1	20.6	24.3	2.9	11.0	3.7	1.5	12.5	7.4	2.2
Narayangarh	70.5	29.5	53.3	10.5	21.9	1.0	15.2	5.7	1.0	2.9	14.3	1.9
Keshiary	64.4	35.6	52.5	13.6	23.7	1.7	17.0	10.2	1.7	1.7	11.9	1.7
Dantan-I	77.8	22.2	64.8	9.3	29.6	1.9	18.5	5.6	1.9	1.9	14.8	1.9
Dantan-II	78.7	21.3	61.7	6.4	27.7	2.1	19.2	2.1	2.1	2.1	12.8	4.3
Mohanpur	86.7	13.3	70.0	3.3	36.7	3.3	16.7	3.3	3.3	3.3	13.3	3.3

**Table 6.7 Continued** 

			Percenta	age of M	arginal v	workers t	to total v	vorkers		
Blocks	То	otal	Cultiv	vators	U	ultural ourer	HHI w	orkers/	Other workers	
	М	F	М	F	М	F	М	F	М	F
Binpur-I	13.64	25.76	3.03	4.55	9.09	18.18	1.52	1.52	1.52	1.52
Binpur-II	21.43	31.43	4.29	2.86	14.29	21.43	1.43	4.29	1.43	1.43

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			Percenta	age of M	arginal v	workers	to total v	vorkers		
Blocks	То	tal	Cultiv	vators	_	ultural ourer	HHI w	orkers/	Other v	workers
	М	F	М	F	М	F	М	F	М	F
Garhbeta-I	10.98	19.51	3.66	6.10	4.88	8.54	3.66	1.22	2.44	2.44
Garhbeta-II	11.48	22.95	4.92	6.56	4.92	9.84	1.64	4.92	1.64	1.64
Garhbeta-III	10.77	24.62	1.54	1.54	4.62	6.15	13.85	1.54	3.08	4.62
Chandrakona-I	11.63	16.28	2.33	6.98	4.65	4.65	2.33	2.33	2.33	2.33
Chandrakona-II	8.11	8.11	2.70	2.70	5.41	2.70	2.70	2.70	2.70	2.70
Ghatal	10.45	11.94	1.49	2.99	5.97	4.48	1.49	2.99	1.49	1.49
Daspur-l	5.56	16.67	1.39	8.33	1.39	4.17	1.39	1.39	1.39	2.78
Daspur-II	6.06	9.09	1.52	4.55	3.03	3.03	1.52	1.52	1.52	1.52
Keshpur	13.13	13.13	3.03	3.03	7.07	7.07	1.01	4.04	1.01	2.02
Salboni	9.59	23.29	2.74	2.74	8.22	13.70	1.37	5.48	1.37	1.37
Medinipur	12.90	17.74	1.61	1.61	8.06	12.90	1.61	1.61	3.23	1.61
Jhargram	15.49	29.58	2.82	5.63	9.86	21.13	1.41	1.41	1.41	1.41
Jamboni	16.67	29.17	4.17	4.17	12.50	20.83	2.08	2.08	2.08	2.08
Gopiballavpur-II	10.53	15.79	2.63	2.63	5.26	13.16	2.63	2.63	2.63	2.63
Gopiballavpur-l	12.50	17.50	2.50	2.50	7.50	12.50	2.50	2.50	2.50	2.50
Nayagram	12.33	30.14	1.37	2.74	2.74	5.48	4.11	16.44	1.37	5.48
Sankrail	14.29	28.57	4.08	4.08	8.16	20.41	2.04	2.04	2.04	2.04
Kharagpur-I	13.16	13.16	2.63	1.32	6.58	9.21	1.32	1.32	3.95	1.32
Kharagpur-II	17.39	20.29	4.35	1.45	11.59	15.94	1.45	1.45	1.45	1.45
Debra	13.04	20.87	3.48	4.35	7.83	12.17	0.87	0.87	2.61	4.35
Pingla	9.89	24.18	4.40	12.09	3.30	7.69	1.10	1.10	1.10	3.30
Sabong	10.29	25.00	4.41	5.88	4.41	6.62	0.74	11.03	0.74	2.21
Narayangarh	18.10	20.00	4.76	1.90	10.48	12.38	0.00	4.76	1.90	0.95
Keshiary	11.86	22.03	3.39	1.69	8.47	16.95	1.69	1.69	1.69	1.69
Dantan-I	12.96	12.96	3.70	1.85	7.41	9.26	1.85	1.85	1.85	1.85
Dantan-II	17.02	14.89	4.26	4.26	10.64	6.38	2.13	2.13	2.13	2.13
Mohanpur	16.67	6.67	6.67	3.33	10.00	3.33	3.33	3.33	3.33	3.33

Source: Census of India 2001

Similar and even sharper is the scenario in case of female main and marginal workers in industrial classification of workers across the district. The percentage of SC female workers to total SC workers was highest in Nayagram and Pingla (50.00 per cent). Other ten blocks for which the percentage share of SC female workers was 40 and above are Binpur-II (40 per cent), Pingla (47.37 per cent), Jamboni (41.67 per

cent), Binpur-I (44.44 per cent), Garhbeta-II (43.75 per cent), Garhbeta-III (40.00 per cent), Salboni (41.67 per cent), Jhargram (43.40 per cent), Jamboni (44.16 per cent), Gopiballavpur-II (41.67 per cent), Sankrail (44.44 per cent) and Sabong (47.37 per cent) - the blocks with high percentage of SC and ST population and relatively low human development. Two blocks had percentage share of SC female workers in total SC workers below 20 per cent. These blocks are Mohanpur (16.67 per cent) and Ghatal (19.05 per cent) which are having relatively high value of human development index. The percentage of SC female main workers to SC total workers and those as cultivators, agricultural labourers and 'other' workers were all lower than those of males and even the percentage share of SC female main household workers was lower than that of SC males in most of the blocks. On the other hand, the percentage share of SC female marginal workers to total workers was higher that of that of males and that is much more so for agricultural labourers and household industry workers (Table 6.8).

Table 6.8 Percentage share of Scheduled Caste Workers by Categories and Sex in Blocks of Paschim Medinipur District, 2001

	D	1		D		(((()	4		CCT		1	
DI I		entage					⁄ain wo					
Blocks		tal SC	То	tal	Culti	vators	Agricu			HI	Oth	
	Wo	rkers					Labo		wor	kers	wor	
	М	F	М	F	М	F	М	F	М	F	М	F
Binpur-l	55.56	44.44	44.44	16.67	9.44	1.67	27.78	11.11	1.67	0.56	8.33	1.67
Binpur-II	60	40	40	10	9	2	12	8	4	2	14	3
Garhbeta-I	63.16	36.84	52.63	15.79	11.05	1.05	26.32	10.53	1.05	0.53	16.32	3.16
Garhbeta-II	56.25	43.75	43.75	18.75	10.63	1.88	25.00	12.50	1.25	1.88	6.88	1.88
Garhbeta-III	60.00	40.00	50.00	10.00	12.00	1.00	21.00	8.00	1.00	1.00	20.00	3.00
Chandrakona-I	75.00	25.00	56.25	6.25	21.25	0.63	31.25	2.50	1.25	0.63	5.63	1.88
Chandrakona-II	80.00	20.00	70.00	10.00	18.00	1.00	42.00	7.00	2.00	2.00	6.00	3.00
Ghatal	80.95	19.05	68.10	5.71	20.48	0.48	30.00	1.43	3.81	1.43	14.29	1.90
Daspur-I	67.63	32.37	57.80	17.34	19.65	3.47	20.81	4.62	3.47	1.73	16.76	4.05
Daspur-II	77.38	22.62	71.43	11.90	14.29	1.19	25.00	5.95	2.38	2.38	28.57	3.57
Keshpur	77.17	22.83	63.78	7.87	31.10	1.18	25.20	3.94	1.18	0.79	5.91	2.36
Salboni	58.33	41.67	50.00	16.67	13.33	1.67	25.00	8.33	2.50	2.50	12.50	1.67
Medinipur	61.54	38.46	46.15	15.38	10.00	0.77	23.08	7.69	0.38	0.38	14.62	3.08
Jhargram	56.70	43.30	41.24	10.31	8.25	1.03	15.46	7.22	3.09	2.06	14.43	2.06
Jamboni	55.84	44.16	38.96	10.39	7.79	0.00	15.58	6.49	2.60	2.60	12.99	15.58
Gopiballavpur-II	58.33	41.67	50.00	16.67	14.17	0.83	25.00	16.67	1.67	1.67	7.50	0.83
Gopiballavpur-l	60.64	39.36	42.55	10.64	10.64	1.06	21.28	10.64	4.26	2.13	7.45	1.06
Nayagram	50.00	50.00	35.71	21.43	9.29	1.43	14.29	7.14	7.14	14.29	7.14	7.14
Sankrail	55.56	44.44	44.44	11.11	12.22	2.22	22.22	11.11	3.33	2.22	6.67	1.11
Kharagpur-I	71.43	28.57	57.14	14.29	5.71	0.71	14.29	7.14	0.71	0.71	35.71	7.14
Kharagpur-II	66.67	33.33	50.00	16.67	10.83	1.67	16.67	8.33	1.67	0.83	15.83	3.33

	Perce	entage		Perce	entage o	of SC N	lain wo	orkers t	o SC To	otal wo	rkers	
Blocks	of To	tal SC	То	tal	Culti	vators	Agricu	ultural	Н	HI	Otl	ner
	Wo	rkers					Labo	ourer	wor	kers	wor	kers
	М	F	М	F	М	F	М	F	М	F	М	F
Debra	64.29	35.71	50.00	14.29	8.57	1.43	21.43	14.29	2.14	0.71	14.29	7.14
Pingla	50.00	50.00	37.50	25.00	12.50	5.00	12.50	12.50	1.25	1.25	10.00	2.50
Sabong	52.63	47.37	42.11	15.79	15.79	5.26	10.53	5.26	5.26	5.26	5.26	5.26
Narayangarh	68.42	31.58	47.37	10.53	19.47	1.05	15.79	5.26	1.58	1.58	10.53	5.26
Keshiary	61.54	38.46	46.15	15.38	15.38	0.77	23.08	7.69	2.31	1.54	11.54	2.31
Dantan-I	77.78	22.22	66.67	11.11	22.22	11.11	22.22	11.11	2.22	1.11	13.33	2.22
Dantan-II	75.00	25.00	50.00	7.50	20.00	0.00	27.50	2.50	2.50	0.00	12.50	5.00
Mohanpur	83.33	16.67	66.67	10.00	23.33	3.33	26.67	0.00	3.33	3.33	13.33	3.33

**Table 6.8 Continued** 

		Pe	rcentage	of SC N	1arginal	workers	to total :	SC work	ers	
Blocks	То	tal	Cultiv	vators		ultural ourer	HHI w	orkers/	Other v	workers
	М	F	М	F	М	F	М	F	М	F
Binpur-I	11.11	27.78	1.67	2.78	11.11	22.22	0.00	0.56	1.11	0.56
Binpur-II	20	30	3	1	20	20	2	4	2	2
Garhbeta-I	10.53	21.05	2.11	3.68	6.84	12.11	0.00	1.05	2.63	2.11
Garhbeta-II	12.50	25.00	1.88	2.50	6.25	18.75	0.00	3.75	1.25	1.25
Garhbeta-III	10.00	30.00	1.00	2.00	7.00	16.00	0.00	4.00	2.00	6.00
Chandrakona-I	12.50	18.75	1.88	6.25	12.50	6.25	0.63	1.25	1.25	3.13
Chandrakona-II	8.00	10.00	1.00	1.00	6.00	6.00	0.50	0.50	1.00	2.00
Ghatal	12.38	13.81	1.43	1.90	9.52	4.76	0.48	3.33	1.90	2.86
Daspur-I	<i>7</i> .51	17.34	2.31	<i>7</i> .51	3.47	5.20	0.58	1.16	1.73	3.47
Daspur-II	7.14	9.52	1.19	2.38	3.57	4.76	1.19	1.19	2.38	1.19
Keshpur	11.81	15.75	2.36	3.15	7.87	7.87	0.39	1.18	1.57	2.36
Salboni	16.67	25.00	1.67	1.67	8.33	16.67	0.83	4.17	1.67	1.67
Medinipur	15.38	23.08	0.77	1.54	7.69	15.38	0.77	1.54	3.08	3.08
Jhargram	15.46	30.93	1.03	3.09	10.31	20.62	1.03	2.06	3.09	1.03
Jamboni	12.99	38.96	1.30	2.60	12.99	25.97	0.00	1.30	1.30	1.30
Gopiballavpur-II	10.83	19.17	1.67	1.67	7.50	1.67	0.00	0.83	0.83	0.83
Gopiballavpur-l	14.89	25.53	0.74	0.74	10.64	21.28	0.00	2.13	1.06	1.06

		Pe	rcentage	of SC N	1arginal	workers	to total	SC work	ers	
Blocks	То	tal	Cultiv	vators	-	ultural	HHI w	vorkers	Other v	workers
					Labo	ourer				
	М	F	М	F	M	F	М	F	M	F
Nayagram	14.29	28.57	0.71	1.43	7.14	7.14	7.14	14.29	2.14	5.71
Sankrail	11.11	22.22	1.11	2.22	7.78	18.89	1.11	2.22	1.11	2.22
Kharagpur-I	14.29	14.29	1.43	0.71	7.14	14.29	0.00	0.71	3.57	1.43
Kharagpur-II	16.67	25.00	2.50	2.50	16.67	16.67	0.83	8.33	1.67	0.83
Debra	14.29	21.43	2.14	2.86	7.14	14.29	0.71	0.71	2.14	2.86
Pingla	12.50	12.50	3.75	7.50	3.75	8.75	0.00	1.25	1.25	3.75
Sabong	10.53	26.32	5.26	10.53	5.26	5.26	5.26	5.26	1.05	3.68
Narayangarh	21.05	21.05	5.26	5.26	10.53	15.79	0.53	2.63	2.11	1.58
Keshiary	7.69	23.08	1.54	1.54	7.69	15.38	0.00	2.31	1.54	0.77
Dantan-I	11.11	11.11	3.33	2.22	11.11	11.11	0.00	1.11	1.11	1.11
Dantan-II	17.50	12.50	5.00	2.50	10.00	5.00	0.00	2.50	2.50	2.50
Mohanpur	16.67	6.67	3.33	3.33	13.33	3.33	0.00	0.00	3.33	0.00

Source: Census of India 2001

Similar and even sharper also is the scenario in case of ST female main and marginal workers in industrial classification of workers across the district. All the 29 blocks of the district had the percentage share of ST female workers 40 and above. Two blocks had percentage share of SC female workers in total SC workers below 20 per cent. These blocks are Mohanpur (16.67 per cent) and Ghatal (19.05 per cent) which are having relatively high value of human development index. The percentage of ST female main workers to ST total workers and those as cultivators, agricultural labourers and 'other' workers were all lower than those of males. On the other hand, the percentage share of ST female marginal workers to total workers was higher that of that of males and that is much more so for agricultural labourers and household industry workers (Table 6.9).

Table 6.9 Percentage share of Scheduled Tribe Total Workers by Categories and Sex in Blocks of Paschim Medinipur District, 2001

	Tot	al ST		Pe	rcentag	e of ST	Main	worker	s o tota	l work	ers	
Blocks		rkers	То	tal	Cultiv	ators	Labo Agricu	urer ultural	HHI workers		Other workers	
	М	F	М	M F		F	М	F	М	F	М	F
Binpur-I	50.00	50.00	40.91	18.18	18.18	4.55	13.64	9.09	0.91	1.36	4.55	4.55
Binpur-II	51.52	48.48	30.30	12.12	12.12	3.03	12.12	3.03	1.82	2.12	4.85	1.52
Garhbeta-I	55.56	44.44	44.44	22.22	14.44	3.33	22.22	22.22	0.00	1.11	3.33	1.11
Garhbeta-II	53.33	46.67	40.00	26.67	20.00	6.67	20.00	13.33	0.67	2.00	3.33	1.33

# Human Development Report Paschim Medinipur

	Tut	LCT		Pe	rcentag	e of ST	Main	worker	s o tota	l work	ers	
Blocks		al ST rkers	То	tal	Cultiv	ators		urer		HI	Otl	
							Agricu		wor	kers	wor	
	М	F	M	F	М	F	М	F	М	F	М	F
Garhbeta-III	54.55	45.45	45.45	18.18	14.55	2.73	18.18	18.18	0.91	3.64	5.45	0.91
Chandrakona-I	58.33	41.67	41.67	20.83	8.33	0.00	33.33	16.67	0.00	0.00	4.17	0.00
Chandrakona-II	55.56	44.44	50.00	22.22	11.11	5.56	33.33	16.67	0.00	5.56	5.56	0.00
Ghatal	50.00	50.00	37.50	31.25	0.00	0.00	31.25	31.25	0.00	0.00	6.25	0.00
Daspur-I	53.57	46.43	46.43	35.71	3.57	0.00	35.71	28.57	0.00	0.00	10.71	3.57
Daspur-II	50.00	50.00	50.00	50.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00
Keshpur	54.76	45.24	35.71	23.81	14.29	3.57	20.24	13.10	1.19	1.19	2.38	1.19
Salboni	53.33	46.67	40.00	20.00	16.67	2.67	20.00	13.33	0.67	2.67	4.67	1.33
Medinipur	53.33	46.67	40.00	20.00	10.67	2.67	21.33	14.67	0.67	0.67	7.33	2.00
Jhargram	55.56	44.44	38.89	11.11	12.22	2.22	16.67	11.11	0.56	0.56	8.89	2.22
Jamboni	50.00	50.00	31.25	18.75	10.63	3.13	16.88	10.63	0.63	1.25	6.25	1.88
Gopiballavpur-l	52.94	47.06	41.18	29.41	17.65	3.53	17.65	1 <i>7</i> .65	1.18	1.76	2.94	0.59
Gopiballavpur-II	54.55	45.45	45.45	27.27	18.18	2.73	27.27	18.18	0.45	0.45	3.64	0.91
Nayagram	50.00	50.00	36.67	20.00	16.67	3.33	13.33	6.67	3.33	6.67	3.33	3.33
Sankrail	53.85	46.15	38.46	15.38	15.38	3.08	15.38	15.38	1.54	0.77	4.62	0.77
Kharagpur-I	62.50	37.50	43.75	18.75	5.00	1.25	12.50	6.25	0.00	0.63	25.00	6.25
Kharagpur-II	52.38	47.62	38.10	19.05	6.67	1.43	20.48	15.71	0.48	0.48	8.10	1.90
Debra	50.00	50.00	35.71	25.00	4.64	1.43	25.00	21.43	0.36	0.36	4.64	0.36
Pingla	55.56	44.44	44.44	33.33	10.00	3.33	33.33	22.22	0.00	1.11	3.33	0.00
Sabong	50.00	50.00	40.00	28.75	11.25	3.75	25.00	25.00	0.00	1.25	2.50	1.25
Narayangarh	55.17	44.83	36.90	15.86	7.59	1.38	24.14	13.79	0.69	0.34	4.48	0.69
Keshiary	52.17	47.83	39.13	17.39	15.22	1.74	21.74	13.04	0.43	0.43	0.22	0.22
Dantan-I	58.33	41.67	41.67	25.00	10.83	1.67	25.00	16.67	2.50	2.50	5.00	2.50
Dantan-II	50.00	50.00	40.00	20.00	5.00	2.50	30.00	1 <i>7</i> .50	0.00	0.00	5.00	0.00
Mohanpur	60.00	40.00	50.00	20.00	10.00	5.00	30.00	25.00	0.00	0.00	5.00	0.00

### Gender Development

**Table 6.9 Continued** 

		Pe	rcentage	e of ST N	1arginal	workers	to total S	ST work	ers	
Blocks	То	tal	Cultiv	vators	Agricu Labo		HHI w	orkers	Other v	vorkers
	М	F	М	F	М	F	М	F	М	F
Binpur-I	13.64	31.82	4.55	4.55	9.09	22.73	0.45	1.82	0.45	0.91
Binpur-II	21.21	36.36	3.03	3.03	15.15	24.24	1.21	6.97	1.52	1.21
Garhbeta-I	11.11	22.22	1.11	3.33	7.78	16.67	0.00	2.22	0.00	1.11
Garhbeta-II	11.33	26.67	3.33	3.33	6.67	13.33	0.67	7.33	0.67	1.33
Garhbeta-III	9.09	27.27	0.91	1.82	9.09	9.09	0.91	10.91	0.91	2.73
Chandrakona-I	12.50	20.83	0.00	4.17	12.50	16.67	0.00	0.00	0.00	4.17
Chandrakona-II	11.11	16.67	0.00	5.56	11.11	11.11	0.00	0.00	0.00	0.00
Ghatal	12.50	18.75	0.00	0.00	12.50	18.75	0.00	0.00	0.00	0.00
Daspur-I	7.14	14.29	0.00	0.00	3.57	14.29	0.00	0.00	0.00	3.57
Daspur-II	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Keshpur	15.48	26.19	1.19	1.19	11.90	23.81	0.00	1.19	1.19	1.19
Salboni	13.33	26.67	1.33	1.33	6.67	20.00	0.00	7.33	0.67	2.67
Medinipur	12.67	24.00	0.67	1.33	13.33	20.00	0.67	0.67	1.33	1.33
Jhargram	16.67	33.33	1.67	2.78	11.11	27.78	0.00	1.67	1.11	1.67
Jamboni	18.75	31.25	2.50	3.75	12.50	25.00	0.63	2.50	1.25	0.63
Gopiballavpur-I	11.76	17.65	1.18	1.76	5.88	17.65	0.59	1.76	0.59	0.59
Gopiballavpur-II	9.09	18.18	1.82	1.82	9.09	18.18	0.00	0.00	0.91	0.91
Nayagram	13.33	30.00	1.33	2.00	3.33	6.67	6.67	16.67	1.67	5.00
Sankrail	15.38	30.77	2.31	3.08	7.69	30.77	0.00	1.54	0.77	0.77
Kharagpur-I	18.75	25.00	1.25	1.25	12.50	18.75	0.00	0.63	4.38	1.88
Kharagpur-II	19.05	28.57	1.90	1.43	14.29	23.81	0.00	0.48	0.95	0.48
Debra	14.29	25.00	0.71	1.07	14.29	21.43	0.00	0.36	0.71	0.71
Pingla	7.78	15.56	1.11	4.44	5.56	12.22	0.00	0.00	0.00	1.11
Sabong	12.50	25.00	1.25	2.50	10.00	16.25	0.00	1.25	0.63	0.63
Narayangarh	17.24	27.59	1.72	1.03	13.79	24.14	0.34	1.72	0.34	0.34
Keshiary	12.17	28.26	2.17	0.87	8.70	26.09	0.00	1.74	0.22	0.22
Dantan-I	8.33	25.00	0.83	1.67	8.33	16.67	0.83	0.83	0.83	0.83
Dantan-II	17.50	27.50	2.50	2.50	17.50	2.50	0.00	0.00	0.00	0.00
Mohanpur	10.00	20.00	0.00	0.00	10.00	15.00	0.00	0.00	0.00	0.00

Source: Census of India, 2001

### **Empowerment of Women through SGSY**

In Paschim Medinipur till October 31, 2009, 21,015 SHGs have been formed, which are exclusively women groups. Out of these 2, 10,150 members 70% are BPI. 1, 34,726 women have received micro credit and started small businesses. 1692 SHGs have received project loan for implementing bigger projects each amounting to Rs.1.50 lakh to Rs 2 lakh. Reccovery of loan was achieved to the tune of 75 per cent during 2008-09.



#### **Ornamental Fish Cultivation by SHG**

Apart from this 1720 SHGs have been formed in 637 backward villages of this district. Women SHGs are being imparted skill upgradation training on mat, floriculture, soft toy, book binding, catering, ornamental fish, mushroom, jute diversified items, tailoring, zori, batik, tie & dye, goatery, piggery, dairy, poultry, fishery, bamboo crafts, mechanized Sal leaf plate making, wool knitting etc. to augment their income.

#### **Networking of SHG - Sub-cluster, Cluster & Federation**

Present thrust in this district is on networking of women SHGs so that they can collect information of all SHGs, prepare plan of action, contact with the bank, Panchayat, Government & non-Government offices to utilize their services. Out of 3086 Gram Sansads (Village Constituencies), 1316 sub-clusters have been formed in many Gram Sansads. Leaders of these sub-clusters are exclusively women and mostly BPL. Again, 70 clusters of SHGs have been formed out of 290 GPs. Good clusters are getting a building of their own, managerial support of Rs.25000/-, infrastructure support of Rs.250 lakh and seed capital of Rs.1.50 lakh to start business. Already 10,699 SHGs have been networked.

Four Federations are functioning in 4 blocks, where most of the SHGs under a block have come under the federation. Each Federation has their own building. Trainings, meetings and micro enterprises are conducted in these Federation buildings. Federations are registered under Society Registration Act, 1961. They hold annual general meetings, get their accounts audited and monitor the performance of the SHGs under them.



Jhargram Block Mahila Aranya Sundari Mahasangha, a Federation of SHGs, is functioning as a Micro Finance Institution. SHGs are getting loan for their children's education, repair of house, health treatment, marriage of daughter & emergency needs at 12% per annum service charge. Loan disposal, disbursement, maintaining accounts are being done by women SHG members.

#### **Special Initiatives:**

- A. 161 SHGs are functioning as agents for meter reading & sending electric bills to households.
- B. 5037 SHGs are cooking and serving mid day meals in schools & Shishu Shiksha Kendras.
- C. 420 women tribal SHGs have received SCA to TSP loan for implementing different projects in backward areas.
- D. 5 Activity clusters are functioning in 4 blocks. They are producing, marketing and getting support from the DRD Cell.
- E. 210 Tribal women SHGs have received sal leaf plate making machines which have helped them increase their income level.
- F. 6736 women SHGs have been given vegetable seeds so that they can put up kitchen garden and contribute to the mid-day meal program as well as increase their monthly income.
- G. Under a special project on SGSY, 162 SHGs from Debra Block have been extensively trained on modern floriculture techniques. Production of cut flowers, extraction of colours, essence, preparation of vermicompost are different components of this project.





- H. In another initiative under special project, 400 SHGs from Sabang Block are being extensively trained on production & marketing of mat diversified items which has huge export market.
- I. In 9 blocks, women SHGs are setting up poultry projects on pilot basis with chicks, feed and medicine inputs. Each member is expected to earn Rs.1200/- per month.
- J. 2470 Women SHGs are acting as job supervisors under NREGS.
- K. As per records of the DRD Cell, during 2008-09, 36 SHG members have participated in various district, state and national level fairs for sale and exhibition of their products and generated a sale of Rs.5,99,000/-. This initiative by the DRD Cell has encouraged poor rural women to have an exposure with their products like mat & diversified items, handloom, imitation jewellery, soft toy, patachitra, door mat & other items.

#### Study on Impact Assessment of Credit-linked SHGs

A study organized by DRD Cell in 2007 and conducted by the Sociology Department of Vidyasagar University, revealed that:

- a. Overall 82.25% of the SHG women are participating in development/ social programmes like sanitation, pulse polio, family welfare, child immunization, legal awareness campaigns, gram sansad meetings, environmental conservation, ICDS and children's education, campaign against domestic violence & liquor and school drop-outs. Women SHG members are entering as members in mother-teacher committee, Gram Unnayan Samity,.
- b. Spending ability has increased for 88.48% of SHG women.

#### Main findings of the study on credit linked SHGs under SGSY

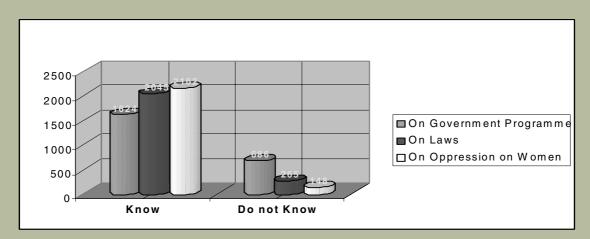
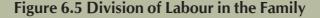
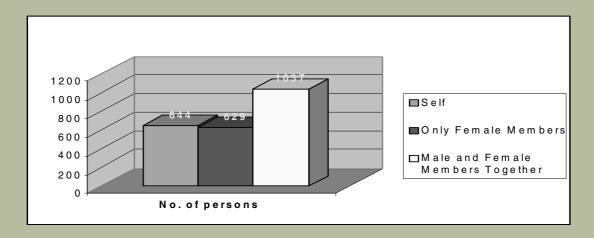


Figure 6.4 Social Awareness among the Members





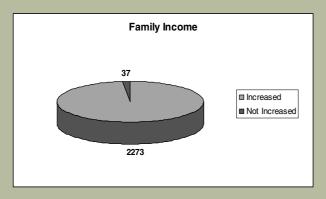
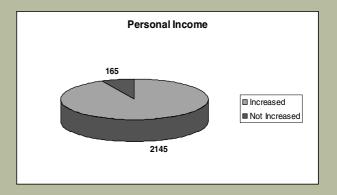


Figure 6.6 Change in Income of SHG Members after linked with Credit



#### **Political Participation of Women**

Gender equality and gender equity have emerged as major challenges in the global development discourse. There can be no real progress if women of a country are not made partners in this process of development. Women's participation in political processes is important for strengthening democracy and for their struggle against marginalization, trivialization and oppression. Emergence of women as a strong group would change the prevailing political practices too. The constitutional provision (73rd Amendment) has created a scope for accomplishing development with social justice. This constitutional amendment providing one-third representation to women in elected bodies as well as reserving one-third of the offices of chairpersons for them have far-reaching consequences in Indian political and social life. Though women representatives have some individual weakness like illiteracy and low level of education, family responsibilities, social perception etc., this affirmative action has paved the way for emergence of an alternative leadership. In Paschim Medinipur district there are 1562 women representatives, representing at various levels of rural local government. Table 6.10 gives details accounts of women participation in PRIs. In the Gram Panchayat there are altogether 3309 seats where the women representatives are 1309. In the case of Panchayat Samitis, of total 750 representatives 229 are women and at Zilla Parishad level out of 62 representatives 24 are women.

Tier **Total Seat** Male representative Women representative Gram Panchayat 3309 1309 2000 Panchayat Samiti 750 229 521 Zilla Parishad 62 24 38 **Total** 4121 1562 2559

**Table 6.10 Participation of Women in PRI.** 

#### **Gender Violence and Offences against Women**

Socially as well as economically, women are more vulnerable group and often victims of harassment, abuse, ill treatment and other discrimination against men. Table 6.11 depicts numbers of cases of ill treatment towards women.

**Table 6.11 Gender Violence & Offences against Women** 

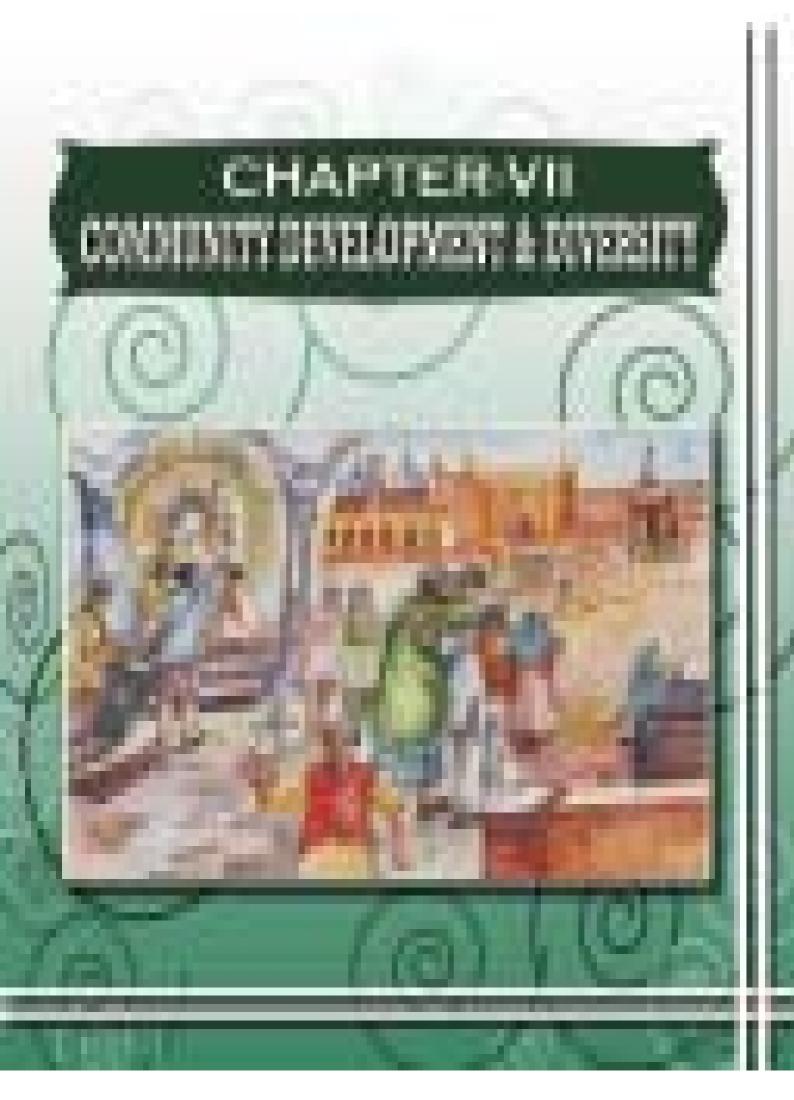
Year	Dowry related death/murder	Dowry related Torture	Rape	Teasing	Total
1996	68	458	77	96	699
1998	55	387	86	80	608
1999	79	441	69	72	661
2000	68	505	72	56	701
2001	84	470	85	53	692
2006	25	283	79	3	390
2007	31	407	60	1	499
Total	410	2951	528	361	4250

Source: Government of West Bengal, Statistical Abstract.

As per the police information, the data represent only 10 to 25% of crimes actually perpetrated on women. Even these are often affected by inadequate investigation, indifferent presentation in the courts, unnecessary delays, and insensibility towards the problems and emotions of women victims. To ensure better utilization of the empowerment system the women grievance cell of police is not the end.

#### **Summing up**

Status of females in the society is one of the indicators of the development in past, present and future. Discussion of status of female literacy, better health care and economic & political empowerment needs to continue for ensuring better access to women for social development issues.



Community Development and Diversity

### **Chapter - VII**

### **Community Development and Diversity**

#### 7.1 Introduction

Paschim Medinipur has always remained a centre of different religio-cultural and socio-economic activities. The autochthones with their cultural identities weathered many ravages of time and manifested radical changes in the ecological system and convolutions in the social structure. In this region several anti-Brahminical movements took place in the past and southern part is the confluence non-Brahminical and Brahminical cultural streams (Bhowmik 1976). The various religious communities include tribal and nontribals living together with their different cultural as well as historical background with significant diversities. In the formalized caste system, four distinct classes (varna) appear and beneath that is the fifth group, the Scheduled Castes. Often, the term dalit is used as they are deprived of many social rights and opportunities. Traditionally they were to perform several menial and degrading jobs. Mostly the tribal communities linguistically belong to Austro-Asiatic sub-section of Austric language family. They became fragmented on the basis of economic pursuits in the form of so-called occupation during the bygone historical phases. Though they originated from the Austric speaking stock they have different myths or tales, with varied measures of affinity. Among them, the Santhals, the Mundas, and the Mahalis show their closeness in respect of myths of origin contrary to those of Koras and the Lodhas. These patrilineal, patrilocal and patriarchal tribal groups have well-knit social organization with totemistic clan systems, which regulates the marriage alliances by following exogamous nature. Almost identical clan names reveal their genesis from the common stock. The traditional political system for maintaining racial or ritual purity for the settlements of the disputes in the village is still working with some communities. But the statutory panchayat body has been introduced in the villages since last few decades and naturally the traditional social order is almost replaced by the new constitutional order. It envisages decentralized planning and governance through democratic processes in the local government of the tribal areas also.

Against this backdrop this chapter presents distribution of population by religion to be followed by discussion of different community groups like scheduled castes and scheduled tribes in Paschim Medinipur district.

#### 7.2 Distribution of Population by Religion

Paschim Medinipur has been inhabited by almost all the religious groups of India. Hindus dominate with 84.77 % of population, followed by Minority community 15.23 % including Muslims with 9.59 %. Other communities like Christians, Sikhs, Budhists, Jains etc. together contribute less than 5.64 % of the total population. Growth of population during 1991-2001 shows that while the total population increased by 15.35%, the Hindu population grew by 13.71% and Muslim population grew by 21.16%. The share of Hindu population dropped by 1.4% over 1991 to 2001, the share of Muslim population grew by 5.1% within this period. The growth of other communities remains insignificant.

Block wise concentration of population of major religious groups are shown in Table 7.1 and Table 7.2. It is evident that relatively high shares of Hindu population are in Salbani, Narayangarh, Kharagpur-I, Daspur-II, Ghatal, Kharar blocks. Concentration more than 15% Muslim population is shown in Keshpur block while that between 5% and 10% are seen in Medinipur, Garhbeta-II, and Garhbeta-III. Among all the municipal towns, only Kharagpur has Muslim population more than 5%. Rest of all the blocks show percentage of Muslim population below 5% with 8 blocks as low as less than 1%.

Percentage share of Muslim population in all the 29 blocks recorded increase during the period from 1981 to 2001 while that of Hindu population registered marginal decline.

Table 7.1 Population by Religion in the Blocks in Paschim Medinipur District, 1981to 2001

_							Ι.			
Sub-	Name of	Year	Hindus	Hindus	Muslims	Muslims		Christians	Total	%
Division	blocks		popula- tion	P.C. to total	popula- tion	P.C. to total	popula- tion	P.C. to total	popula- tion	to total
	Chandrakona-	1981	139736	88.03	18293	11.53	138	0.09	158737	100
	1 & 11	1991	163428	84.56	25503	13.19	4	-	193351	100
		2001	189951	84.45	33499	14.89	39	0.02	224927	100
<u>_</u>	le l	1981	280644	95.21	13866	4.7	250	0.09	294763	100
Ghatal	Daspur-I & II	1991	334645	94.26	19368	5.45	7	-	355376	100
		2001	357870	93.72	23765	6.22	2	-	381850	100
		1981	132249	92.09	11150	7.76	173	0.12	143608	100
	Ghatal	1991	155895	91.41	14252	8.36	68	0.04	170478	100
		2001	173020	90.71	17618	9.24	2	-	190740	100
		1981	160760	73.75	3500	1.6	14	0.01	217980	100
	Binpur- I & II	1991	188412	74.69	5841	2.32	322	0.13	251767	100
		2001	184928	64.86	6159	2.16	326	0.11	285119	100
	Gopiballavpur-	1981	135996	86.77	608	0.43	399	0.28	156732	100
	1 & 11	1991	153728	94.73	1222	0.75	650	0.40	162933	100
		2001	176678	93.91	1295	0.69	806	0.43	188135	100
		1981	62363	82.87	3431	4.56	-	-	75254	100
_	Jamboni	1991	73930	82.01	4909	5.45	19	0.02	90073	100
Jhargram		2001	68716	67.56	6422	6.31	20	0.02	101711	100
Jhar		1981	137995	96.93	3196	2.25	437	0.31	142366	100
	Jhargram	1991	126657	94.67	3756	2.81	2 02	0.08	133665	100
		2001	129479	84.44	5013	3.27	170	0.11	153338	100
		1981	85314	92.869	644	0.7	546	0.59	91865	100
	Nayagram	1991	96746	90.87	773	0.72	970	0.91	107361	100
		2001	99881	80.59	1327	1.07	2138	1.73	123937	100
		1981	75671	98.13	911	1.18	443	0.57	77113	100
	Sankrail	1991	84818	96.73	1043	1.19	604	0.69	87647	100
		2001	91033	88.70	1602	1.56	904	0.88	102630	100

Human Development Report Paschim Medinipur

Sub-	Name of	Year	Hindus	Hindus	Muslims	Muslims	Christians	Christians	Total	%
Division	blocks		popula-	P.C.	popula-	P.C.	popula-	P.C.	popula-	to
	5	1001	tion	to total	tion	to total	tion	to total	tion	total
	Dantan- I & II	1981	359320	93.88	21277	5.56	1440	0.38	382744	100
	& Narayangarh	1991	429322	91.49	37619	8.03	1665	0.35	468481	100
		2001	505677	91.54	41748	7.56	1996	0.36	552411	100
		1981	165538	91.86	14265	7.92	209	0.12	180207	100
	Debra	1991	199418	90.49	19650	8.92	280	0.13	220291	100
		2001	224113	87.81	24318	9.53	300	0.12	255225	100
		1981	88493	96.14	763	0.83	1469	1.60	92046	100
	Keshiary	1991	108338	96.82	959	0.86	2567	2.29	111512	100
		2001	113457	85.91	1705	1.29	4406	3.34	132065	100
Spur	Kharagpur-	1981	188482	90.97	17252	8.33	615	0.30	207191	100
Kharagpur	I & II	1991	232641	89.99	24387	9.43	654	0.25	258611	100
<u> </u>		2001	353428	88.57	36204	9.07	4112	1.03	399038	100
		1981	61432	92.8	4753	7.18	11	0.02	66198	100
	Mohanpur	1991	76982	91.87	6804	8.12	5	0.01	83793	100
		2001	87283	90.61	8903	9.24	113	0.12	96328	100
		1981	102951	84.01	19409	15.84	142	0.12	122546	100
	Pingla	1991	132560	88.68	16741	11.2	31	0.02	149473	100
		2001	149171	87.2	21184	12.38	73	0.04	171068	100
		1981	161150	95.75	6438	3.83	121	0.07	168303	100
	Sabong	1991	197995	95.26	9828	4.73	12	0.01	207780	100
		2001	225464	94.46	12663	5.31	0	0.00	238687	100
	Garbeta-	1981	269979	81.41	40625	12.67	819	0.26	331629	100
	I, II & III	1991	304224	76.39	59799	15.02	60	0.02	398129	100
		2001	361182	75.66	80977	16.96	79	0.02	477375	100
		1981	151160	76.97	44888	22.86	38	0.02	196388	100
_	Keshpur	1991	180183	74.55	60770	25.15	1	0.00	241630	100
nipu		2001	209221	72.52	76866	26.64	18	0.01	288501	100
Medinipur		1981	93195	86.9	12611	11.76	256	0.24	107244	100
~	Medinipur	1991	89831	72.26	29755	23.94	62	0.05	124290	100
		2001	115218	72.95	37371	23.66	87	0.06	157941	100
		1981	108328	94.64	2515	2.2	356	0.31	114463	100
	Salboni	1991	134863	95.29	3195	2.26	490	0.34	141372	100
		2001	145666	88.15	4686	2.84	573	0.35	165248	100

Source: Census of India1981, 1991 and 2001

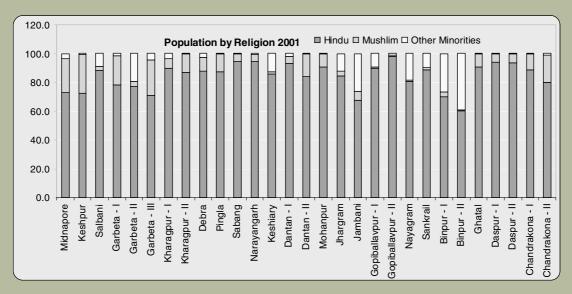
Table 7.2 Population by Religion in the Blocks in Paschim Medinipur District, 2001

						<u> </u>	Minorities		
SI. No.	Block / Municipality	Total Population	Hindu	% of Hindu	Mushlim	% of Mushlim	Other Minorities	% of Other Commu- nities	P.C. to Total
1	Medinipur	157945	115218	72.95	37371	23.66	5356	3.39	100
2	Keshpur	288489	209221	72.52	76866	26.64	2402	0.83	100
3	Salbani	165248	145666	88.15	4686	2.84	14896	9.01	100
4	Garhbeta-I	200402	156632	78.16	40443	20.18	3327	1.66	100
5	Garhbeta-II	131103	101250	77.23	4399	3.36	25454	19.42	100
6	Garhbeta-III	145854	103300	70.82	36135	24.77	6419	4.40	100
7	Kharagpur-I	237228	212940	89.76	15261	6.43	9027	3.81	100
8	Kharagpur-II	161828	140488	86.81	20943	12.94	397	0.25	100
9	Debra	255220	224113	87.81	24318	9.53	6789	2.66	100
10	Pingla	171066	149171	87.20	21184	12.38	711	0.42	100
11	Sabang	238686	225464	94.46	12663	5.31	559	0.23	100
12	Narayangarh	266675	252087	94.53	13031	4.89	1557	0.58	100
13	Keshiary	132061	113457	85.91	1705	1.29	16899	12.80	100
14	Dantan-I	151376	140818	93.03	7548	4.99	3010	1.99	100
15	Dantan-II	134360	112772	83.93	21169	15.76	419	0.31	100
16	Mohanpur	96323	87283	90.61	8903	9.24	137	0.14	100
17	Jhargram	153331	129479	84.44	5013	3.27	18839	12.29	100
18	Jambani	101718	68716	67.56	6422	6.31	26580	26.13	100
19	Gopiballav- pur-l	94834	85177	89.82	705	0.74	8952	9.44	100
20	Gopiballav- pur-II	93306	91501	98.07	590	0.63	1215	1.30	100
21	Nayagram	123937	99881	80.59	1327	1.07	22729	18.34	100
22	Sankrail	102634	91033	88.70	1602	1.56	9999	9.74	100
23	Binpur-I	139148	96925	69.66	5299	3.81	36924	26.54	100
24	Binpur-II	145977	88003	60.29	860	0.59	57114	39.13	100
25	Ghatal	190738	173020	90.71	17618	9.24	100	0.05	100
26	Daspur-l	175774	165250	94.01	10386	5.91	138	0.08	100

						1	Minorities		
SI. No.	Block / Municipality	Total Population	Hindu	% of Hindu	Mushlim	% of Mushlim	Other Minorities	% of Other Commu- nities	P.C. to Total
27	Daspur-II	206087	192620	93.47	13379	6.49	88	0.04	100
28	Chandrakona-I	118085	104510	88.50	13192	11.17	383	0.32	100
29	Chandrakona-II	106831	85441	79.98	20307	19.01	1083	1.01	100
1	Medinipur (M)	149769	125210	83.60	22974	15.34	1585	1.06	100
2	Kharagpur (M)	188761	157002	83.18	25325	13.42	6434	3.41	100
3	Jhargram (M)	53145	49033	92.26	898	1.69	3214	6.05	100
4	Ghatal (M)	51582	49825	96.59	1709	3.31	48	0.09	100
5	Kharar (M)	11580	11243	97.09	329	2.84	8	0.07	100
6	Kshirpai (M)	14548	13723	94.33	811	5.57	14	0.10	100
7	Chandrakona (M)	20398	18992	93.11	1358	6.66	48	0.24	100
8	Ramjibanpur (M)	17364	16139	92.95	1217	7.01	8	0.05	100
	Total:	5193411	4402603	84.77	497946	9.59	292862	5.64	100

Source: Census of India 2001

Figure 7.1 Population by Religion in Blocks of Paschim Medinipur District, 2001



Data on other demographic details by religion are not available from the Census of India. To supplement the data available we conducted a sample survey in 15 villages and 300 households of which are Muslims, SC, ST and General Caste households. We may use the primary data for understanding some demographic features / indicators by community.

Table 7.3 Some Demographic Features / Indicators by Community in Sample Villages

Indicators	Muslim	SC	ST	General	Total
Number of households	32	81	66	121	300
Number of male members	78	208	143	277	706
Number of female members	67	170	147	280	664
Total Number of members	145	378	290	557	1370
Number of members per household	4.5	4.7	4.4	4.6	4.6
Sex ratio	859	817	1028	1011	941
Total literacy	26.90	36.24	37.24	70.92	49.56
Gender gap	11.16	7.07	17.58	12.61	10.84
WPR:	32	48	50	46	46
% of cultivators	13.04	24.18	11.64	32.65	29.09
% of agrl. labourers	13.04	48.35	54.79	11.55	34.18
% of non-agricultural workers	73.91	27.47	33.56	38.43	36.72
Per capita income	468.64	548.57	527.84	851.2	658.76
BPL %	87.5	71.6	72.73	58.68	68.33
Food security not sufficient	71.88	48.15	62.12	30.58	46.67
Housing	65.63	51.85	66.67	39.67	51
% of households having electric connection	0	16.05	6.08	23.97	15.33
% of households Received bank loan	15.63	12.35	25.76	14.05	16.33
% of households on temporary migration	84.38	14.81	3.03	39.67	27.33

Source: Household Survey during the Study Period, 2009

#### 7.3 Community Groups in the District

#### **Schedule Caste Community**

Keshpur block recorded in 2001 the highest scheduled caste population followed by Ghatal the lowest being experienced by Mohanpur block. Binpur II block registered the highest scheduled tribe population followed by Narayangarh, the lowest being experienced by Daspur II block in 2001. The dominant SC gropus in the district are Bagdi Dule, Dom, Jelia Kaibartya, Mal, Rajbanshi, Rajoyar, Keora, Bhimali, Bauri, and Tiyar. The presence of other miscellaneous SC communities is more marginal in individual terms. Ghatal sub-division has highest concentration of 24.95% SC population where as Kharagpur sub-division has the lowest concentration of SC population with 14.03%. Among the blocks, Garbeta-I, Garbeta-II, Keshpur, Keshiary, Binpur-I, Gopiballavpur-I, Gopiballavpur-II, Ghatal, Daspur-I, Chandrakopna-I and Chandrakona-II have more than 20% of SC population. The highest concentration of 35.04% is seen in Chandrakona I block while the lowest concentration of 8.22% is found in Pingla block.

#### **Schedule Tribe Community**

The pattern of distribution of ST communities across district follows an unequal pattern. The western part of the district shows more dense ST population. The Jhargram sub division has the highest concentration, i.e. 30.02% of total ST population. In eastern part of district, Ghatal sub-division has the lowest concentration of tribal population with 2.18%. The blocks, those with more than 30% tribal concentration, situated in the western part. The blocks are Keshiary, Binpur II, Jhargram, Sankrail and Gopiballavpur I. Binpur II has the highest concentration of ST population i.e. 42% of total ST population of the district. Daspur-II has the lowest density of ST population, i.e. 02.19%. The other blocks which have less concentration of ST population are blocks from eastern and middle part of the district. Blocks with less than 5% concentration of ST population are Mohanpur, Ghatal, Chandrakona I, Chandrakona II, Daspur I and Daspur II. Among the blocks, those with more than 30% tribal concentration are Keshiary, Binpur II, Jhargram, Sankrail and Gopiballavpur I and those with less than 5% concentration are Mohanpur, Ghatal, Chandrakona I, Chandrakona II, Daspur I and Daspur II. It is interesting to note that Binpur II has the highest concentration of 42% while Daspur II has as low as 0.19% concentration of tribal population.

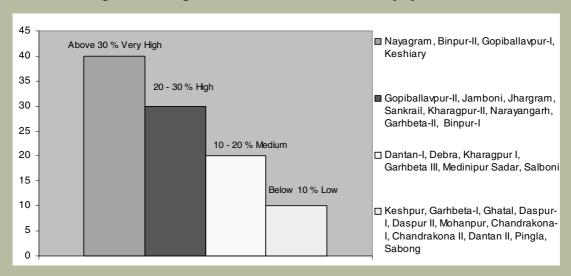
Based on the concentration of tribal population, the blocks of Paschim Medinipur may be classified as very high, high, medium and low degree of concentration of scheduled tribe population as below:

Table 7.4 Distribution of Scheduled Tribe Population across Paschim Medinipur District, 2001

Degree of Concentration	No. of Blocks	Names of Blocks
Very High	4	Nayagram, Binpur-II, Gopiballavpur-I, Keshiary
(above 30 per cent)		
High	8	Gopiballavpur-II, Jamboni, Jhargram, Sankrail,
(20-30 Per cent)		Kharagpur-II, Narayangarh, Garhbeta-II, Binpur-I
Medium	6	Dantan-I, Debra, Kharagpur I, Garhbeta III,
(10 - 19 per cent)		Medinipur Sadar, Salboni
Low	11	Keshpur, Garhbeta-I, Ghatal, Daspur-I, Daspur II,
(Below 10 per cent)		Mohanpur, Chandrakona-I, Chandrakona II,
		Dantan II, Pingla, Sabong

Source: Census of India2001

Figure 7.2 Degree of concentration of tribal population



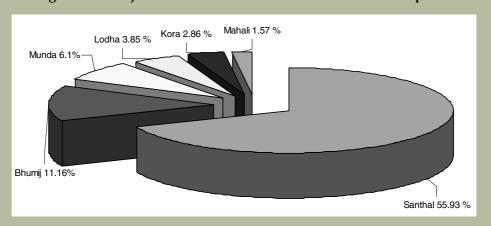
#### Community Development and Diversity

The major tribal communities of the district are Santhal, Bhumij, Munda, Lodha, Kora and Mahali. Among them, Lodha only belong to the primitive tribal group (PTG). Among the tribal groups Santhals constitute the highest share of 55.93% of total tribal population. Lodhas are only 3.85% while the Mahalis are 1.57% of the tribal population of the district (Table 7.6). Figure 7.2 shows population of major tribal communities.

Tribe **Population** Sex Ratio Percentage to total Percentage ST Population of Literates Santhal 55.93 431907 973 27.57 Bhumij 86197 932 11.16 31.34 Munda 47079 961 6.10 24.08 Lodha 29747 1034 3.85 26.60 Kora 22351 984 27.75 2.86 Mahali 12117 942 1.57 25.10

**Table 7.5 Major Tribal Communities in Paschim Midnapore** 

Figure 7.3 Major Tribal Communities in Paschim Midnapore



#### **Literacy among Different Community Groups**

In Paschim Medinipur, literacy among Schedule caste and schedule tribe is low. During the period from 1991 to 2001 it has improved perceptibly across the district. There is also a substantial gap in literacy rate among SC and STs. Though both of the communities lag far behind in the total literacy rate, the Block wise figure shows that in literacy rate SC community is ahead of ST community.

In 1991, Jamboni block had the highest percentage of SC literate population (72.66) followed by Kharagpur I (58.27), the lowest being registered in Medinipur block (29.35). In 2001, Sabong block had the highest percentage of SC literate population (61.98) followed by Dantan-II (57.23), the lowest being registered in Salboli block (28.86). In case of decadal change (1991-2001) in SC literacy, Binpur-I recorded the highest value of 18.35 percentage point followed by Daspur-I (17.02 percentage point ) and Daspur-II (16.15 percentage point).

In 1991, Jamboni block had the highest percentage of ST literate population (70.98) followed by Debra (37.28), the lowest being registered in Daspur-II block (12.35). In 2001, Binpur-I block had the

highest percentage of ST literate population (45.39) followed by Jamboni (45.12), the lowest being registered in Daspur-I block (27.30). In case of decadal change (1991-2001) in ST literacy, Daspur-II recorded the highest value of 20.30 percentage point followed by Pingla (16.52 percentage point) and Salboni (14.57 percentage point) (Table 7.7).

Jamboni block registered decline in literacy rate among both SCs and STs in the census year 1991 and 2001respectively, which is unusual and can be explained by wrong recording of literates.

Table 7.6 Literacy Rate among SCs and STs in Blocks, 1991 and 2001 and Its Change, 1991-2001

Block		SC			ST	
	1991	2001	Change	1991	2001	Change
Chandrakona-I	31.47	43.72	12.25	20.44	32.55	12.11
Chandrakona-II	36.05	40.57	4.52	28.77	32.31	3.54
Daspur-I	31.65	48.67	17.02	15.42	27.30	11.88
Daspur-II	35.72	51.87	16.15	12.35	32.65	20.3
Ghatal	36.95	49.53	12.58	25.36	32.01	6.65
Binpur-II	39.63	40.15	0.52	33.92	45.39	11.47
Binpur-I	30.95	49.30	18.35	35.58	45.08	9.5
Gopiballavpur-I	35.11	37.90	2.79	25.44	33.38	7.94
Gopiballavpur-II	36.07	42.88	6.81	36.19	40.49	4.3
Jamboni	72.66	50.74	-21.92	70.98	45.12	-25.86
Jhargram	30.16	42.65	12.49	29.07	39.35	10.28
Nayagram	33.29	40.20	6.91	27.16	32.78	5.62
Sankrial	37.44	45.03	7.59	36.31	42.95	6.64
Dantan-I	45.47	50.80	5.33	25.23	29.34	4.11
Dantan-II	52.62	57.23	4.61	32.23	43.91	11.68
Debra	49.43	53.26	3.83	37.28	39.26	1.98
Keshiary	44.58	52.25	7.67	34.23	42.54	8.31
Kharagpur-I	58.27	50.36	-7.91	31.82	38.91	7.09
Kharagpur-II	42.65	48.68	6.03	29.98	37.16	7.18
Mohanpur	45.64	54.83	9.19	22.29	27.92	5.63
Narayangarh	54.80	57.12	2.32	34.21	36.65	2.44
Pingla	44.91	49.56	4.65	27.00	43.52	16.52
Sabang	52.32	61.58	9.26	30.92	40.08	9.16
Garhbeta-I	30.08	40.66	10.58	20.36	34.83	14.47
Garhbeta-II	32.40	41.03	8.63	34.60	43.98	9.38
Garhbeta-III	40.46	43.51	3.05	26.69	35.95	9.26
Keshpur	39.11	30.70	-8.41	27.13	32.00	4.87
Medinipur	29.35	41.71	12.36	22.48	32.69	10.21
Salboni	30.03	28.86	-1.17	26.01	40.58	14.57

Source: Census of India, 1991 and 2001

#### **Education Status: Evidence form Field**

A sample study of sample 300 households from sample 15 villages scattered around 15 blocks of the district found in 2009 quite similar results. In terms of male literacy rate in the sample villages, ST males are found a bit ahead of their SC counterpart, but both the communities lag far behind their general caste counterparts. Whereas 77.26% general caste males of the sample villages are found literate, the male literacy for SC community is 39.42% and for ST community it is 46.15%. Among the ethnic community groups, ST women are found most backward in terms of literacy. Whereas 64.64% of general women and 32.35% of SC women are found literate, the incidence of women literacy across the ST community is 28.57%.

Garhbeta-III is one of the relatively backward blocks in terms of literacy rate among ethnic communities especially the ST women. Only 22.25% of ST women are literate in this block. Raymani Tudu and other 6 women of Narayanpur village of Raskundu Gram Panchayat under Garhbeta-III block are members of a Self Help Group formed under a watershed project. All of the women in the self help group are illiterate. Among them, 4 are from landless households and others are from marginal farmers with land holding less than 40 decimals. There is a negative impact of low literacy level on ST women on their children as children of all the respondent ST women are dropped out of school







#### **Work Participation**

During the period from 1991 to 2001 all the 29 blocks of the district registered perceptible increase in the proportion of SC marginal workers to SC total workers, which got its influence felt on the sizeable increase in the proportion of SC marginal workers to SC total population in the blocks. Despite this substantial increase in the proportion of SC marginal workers to SC total population SC work participation rate, i.e., proportion of SC total workers to SC total population did not register increase in all the blocks. Rather, there are 7 blocks that witness decline in the SC work participation rate. These blocks are Chandrakona-II, Daspur-II, Gopiballavpur-II, Sankrail, Dantan I, Khargapur-I and Mohanpur.

Table 7.7 Broad Classifications of Scheduled Caste Workers by Block and Municipality , 1991 & 2001

Block/ Municipality	Year	% of MRW to TW	% of MRW to total Population	Work Participation Rate (%)
1 /			•	1 1
Chandrakona - I	1991	4.29	1.37	31.97
	2001	34.24	13.22	38.61
Chandrakona - II	1991	11.27	4.37	38.79
	2001	18.18	6.65	36.59
Daspur - I	1991	14.38	5.28	36.72
	2001	24.93	10.13	40.65

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Block/	Year	% of MRW to TW	% of MRW to total	Work Participation
Municipality			Population	Rate (%)
Daspur - II	1991	12.05	3.98	33.05
	2001	17.08	5.51	32.29
Ghatal	1991	11.76	3.95	33.57
	2001	26.01	8.98	34.54
Binpur - I	1991	13.16	6.69	50.83
	2001	38.45	19.70	51.25
Binpur - II	1991	14.83	7.05	47.57
	2001	47.81	23.09	48.29
Gopiballavpur - I	1991	8.97	3.94	43.93
	2001	40.32	18.05	44.77
Gopiballavpur - II	1991	11.04	5.04	45.61
	2001	29.81	13.12	44.00
Jamboni	1991	12.61	6.17	48.88
	2001	50.32	24.79	49.26
Jhargram	1991	13.58	6.43	47.34
	2001	46.77	22.43	47.96
Nayagram	1991	18.84	10.10	53.62
	2001	39.41	24.08	61.10
Sankrail	1991	17.32	9.02	52.07
	2001	38.61	19.37	50.17
Dantan - I	1991	15.05	8.53	56.68
	2001	25.54	9.21	36.07
Dantan - II	1991	10.47	3.42	32.71
	2001	30.44	10.25	33.68
Debra	1991	7.65	3.31	43.28
	2001	34.88	16.04	45.98
Keshiary	1991	7.70	3.17	41.24
	2001	33.54	15.15	45.16
Kharagpur - I	1991	6.32	3.41	54.04
	2001	30.40	10.97	36.08
Kharagpur - II	1991	9.65	3.91	40.54
	2001	39.60	17.50	44.18
Mohanpur	1991	10.03	3.25	32.42
	2001	25.46	7.77	30.50
Narayangarh	1991	13.45	4.93	36.65
	2001	41.76	16.17	38.73
Pingla	1991	11.32	4.29	37.87
	2001	32.56	17.76	54.56
Sabang	1991	23.85	8.99	37.71
	2001	39.19	22.52	57.45
Garbeta - I	1991	7.29	2.83	38.82
	2001	30.72	13.27	43.19

#### Community Development and Diversity

Block/	Year	% of MRW to TW	% of MRW to total	Work Participation
Municipality			Population	Rate (%)
Garbeta - II	1991	7.07	3.23	45.65
	2001	35.98	18.34	50.96
Garbeta - III	1991	14.47	6.32	43.64
	2001	36.16	16.75	46.32
Keshpur	1991	6.30	2.07	32.91
	2001	28.28	9.89	34.97
Medinipur	1991	9.19	3.93	42.80
	2001	34.90	15.33	43.91
Salbani	1991	13.01	5.74	44.11
	2001	37.21	16.57	44.52

Source: Census of India 1991 and 2001

During the period from 1991 to 2001 all the blocks of the district except Gopiballavpur-I recorded decrease in the proportion of SC cultivators to SC total workers and only six blocks out of 29 registered increase in the proportion of SC agricultural labourers to SC total workers. These six blocks are Sabong, Darpur-I, Dantan-I, Dantan-II, Sankrail, Daspur-II. During this period all the blocks except five (Chandrakona-I, Binpur-I, Sankrail, Kharagpur-I, and Pingla) recorded increase in proportion of SC household industry workers. All the 29 blocks registered sizeable increase in the proportion of SC non-agricultural workers during this period. Despite these only nine blocks recorded above 50 percent increase in SC non-agricultural workers and these blocks are Binpur-II, Jhargram, Dantan-II, Keshiary, Mohanpur, Narayangarh, Garhbeta-II, Keshpur and Salboni which are having relatively low values of human development index. Therefore, the case of distress diversification of economic livelihoods of SCs in these blocks can not be ruled out.

Table 7.8 Percentage Distributions of Scheduled Caste Workers in Block and Municipality in Paschim Medinipur District, 1991 & 2001

Block/ Municipality	Year	% of Cultivators	%of Agricultural Labourers	% of Household Manufacturing and Processing	% of Other workers	Non- agricultural Workers %
Chandrakona-I	1991	34.37	56.39	3.41	5.84	9.25
	2001	33.78	51.75	3.14	11.33	14.47
Chandrakona-II	1991	29.75	62.13	3.21	4.91	8.12
	2001	23.93	60.41	4.88	10.78	15.65
Daspur-I	1991	46.17	33.49	2.92	17.42	20.33
	2001	31.16	34.04	7.16	27.64	34.80
Daspur-II	1991	29.65	36.31	4.75	29.29	34.04
	2001	18.59	36.90	5.36	39.15	44.50
Ghatal	1991	37.50	44.14	4.24	14.13	18.36
	2001	28.42	42.21	7.35	22.01	29.37
Binpur-I	1991	23.06	65.25	4.76	6.93	11.69
	2001	17.86	62.38	3.59	16.17	19.76

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Block/ Municipality	Year	% of Cultivators	%of Agricultural Labourers	% of Household Manufacturing and Processing	% of Other workers	Non- agricultural Workers %
Binpur-II	1991	32.66	45.35	8.82	13.18	21.99
	2001	20.59	36.33	12.02	31.06	43.08
Gopiballavpur-I	1991	19.65	63.67	6.33	10.35	16.68
	2001	20.23	54.88	10.02	14.87	24.88
Gopiballavpur-II	1991	23.76	65.97	3.70	6.57	10.27
	2001	21.72	61.36	4.67	12.26	16.92
Jamboni	1991	22.27	54.60	8.20	14.93	23.13
	2001	15.40	44.26	10.15	30.18	40.33
Jhargram	1991	28.97	55.79	4.88	10.35	15.23
	2001	17.54	41.92	9.74	30.81	40.54
Nayagram	1991	22.87	48.21	21.42	7.50	28.92
	2001	17.18	32.88	31.13	18.81	49.95
Sankrail	1991	33.12	52.92	8.65	5.31	13.96
	2001	23.41	54.59	8.46	13.54	21.99
Dantan-I	1991	48.64	31.39	3.85	16.12	19.97
	2001	33.76	40.20	4.62	21.42	26.04
Dantan-II	1991	46.62	38.75	4.44	10.19	14.64
	2001	29.60	41.16	4.66	24.58	29.24
Debra	1991	24.43	58.09	3.02	14.45	17.48
	2001	15.22	52.36	4.68	27.74	32.42
Keshiary	1991	37.05	51.82	2.37	8.77	11.14
	2001	25.46	48.21	5.46	20.86	26.33
Kharagpur-I	1991	12.68	42.06	3.15	42.11	45.26
	2001	9.10	25.37	2.58	62.96	65.54
Kharagpur-II	1991	24.68	55.37	3.32	16.63	19.95
	2001	19.64	44.80	3.66	31.89	35.55
Mohanpur	1991	47.73	37.91	5.09	9.27	14.36
	2001	34.78	35.63	8.80	20.79	29.59
Narayangarh	1991	47.30	38.09	3.71	10.90	14.60
	2001	35.50	35.57	5.94	22.99	28.93
Pingla	1991	34.38	43.21	5.83	16.57	22.40
	2001	28.27	45.95	4.70	21.08	25.78
Sabang	1991	51.66	20.32	14.23	13.79	28.02
	2001	36.82	27.75	16.79	18.64	35.43
Garhbeta-I	1991	26.31	57.04	1.94	14.72	16.65
	2001	17.12	52.20	2.40	28.28	30.68

#### Community Development and Diversity

Block/	Year	% of	%of	% of	% of	Non-
Municipality		Cultivators	Agricultural	Household	Other workers	agricultural
			Labourers	Manufacturing and Processing		Workers %
				Tiocessing		
Garhbeta-II	1991	28.63	62.17	2.53	6.67	9.20
	2001	19.33	61.74	4.60	14.33	18.93
Garhbeta-III	1991	29.22	50.53	1.91	18.34	20.26
	2001	18.81	42.99	3.20	35.00	38.20
Keshpur	1991	51.43	41.37	2.09	5.11	7.20
	2001	45.26	40.52	2.75	11.47	14.23
Medinipur	1991	21.11	50.58	5.11	23.20	28.30
	2001	16.93	43.69	12.17	27.21	39.38
Salbani	1991	34.92	50.56	3.75	10.77	14.52
	2001	22.74	47.92	7.12	22.23	29.34

Source: Census of India 1991 and 2001

Breakdown of total workers into main workers and marginal workers reveals some interesting findings for the SC community from the analysis of census data. Agriculture remains the main stay of economic livelihoods for the SC people as their main or marginal occupations. Jamboni is the block where 50.6 per cent of SC total workers are SC marginal workers of which 39 per cent are SC marginal agricultural labourers, about 4 per cent SC cultivators and only about 4 per cent are SC non-agricultural workers. There are six blocks where above 30 per cent SC agricultural labourers are SC marginal workers. These blocks are Binpur-II, Binpur-I, Jhargram, Jamboni, Gopiballavpur-I and Kharagpur-II which are having low value of human development index.

Table 7.9 Percentage of SC Main workers and SC marginal workers to SC total workers in Blocks of Pahim Medinipur District, 2001

Block	Percentage of SC Main workers to total workers					Percentage of SC Marginal workers to total workers				
	Total	Cultiva- tors	Agl. Lab.	HHI workers	Other workers	Total	Cultiva- tors	Agl. Lab.	HHI workers	Other workers
Binpur-II	52.20	10.80	19.00	6.30	15.20	47.80	4.20	34.60	5.70	3.40
Binpur-I	61.10	11.10	38.90	2.20	10.00	38.90	4.40	33.30	0.60	1.70
Garhbeta-II	62.50	12.50	37.50	3.10	8.80	37.50	4.40	25.00	3.80	2.50
Garhbeta-I	68.40	12.10	36.80	1.60	19.50	31.60	5.80	19.00	1.10	4.70
Garhbeta-III	60.00	13.00	29.00	2.00	23.00	40.00	3.00	23.00	4.00	8.00
Chandra I	62.50	21.90	33.80	1.90	7.50	31.30	8.10	18.80	1.90	4.40
Chandrakona-II	80.00	19.00	49.00	4.00	9.00	18.00	2.00	12.00	10.00	3.00
Ghatal	73.80	21.00	31.40	5.20	16.20	26.20	3.30	14.30	3.80	4.80
Daspur-I	<i>7</i> 5.10	23.10	25.40	5.20	20.80	24.90	9.80	8.70	1.70	5.20
Daspur-II	83.30	15.50	31.00	4.80	32.10	16.70	3.60	8.30	2.40	3.60
Keshpur	71.70	32.30	29.10	2.00	8.30	27.60	5.50	15.80	1.60	3.90

Block	Percentage of SC Main workers to total workers					Percentage of SC Marginal workers to total workers				
Salboni	66.70	15.00	33.30	5.00	14.20	41.70	3.30	25.00	5.00	3.30
Medinipur	61.50	10.80	30.80	7.70	17.70	38.50	2.30	23.10	2.30	6.20
Jhargram	51.60	9.30	22.70	5.20	16.50	46.40	4.10	30.90	3.10	4.10
Jamboni	49.40	7.80	22.10	5.20	15.60	50.60	3.90	39.00	1.30	2.60
Gopiballavpur-II	66.70	15.00	41.70	3.30	8.30	30.00	3.30	24.20	0.80	1.70
Gopiballavpur-I	53.20	11.70	31.90	6.40	8.50	40.40	1.50	31.90	2.10	2.10
Nayagram	57.10	10.70	21.40	21.40	14.30	42.90	2.10	14.30	21.40	7.90
Sankrail	55.60	14.40	33.30	5.60	7.80	33.30	3.30	27.80	3.30	3.30
Kharagpur-I	71.40	6.40	21.40	2.10	42.90	28.60	2.10	21.40	0.70	5.00
Kharagpur-II	66.70	12.50	25.00	2.50	20.00	41.70	5.00	33.30	1.70	2.50
Debra	64.30	10.00	35.70	2.90	21.40	35.70	5.00	21.40	1.40	5.00
Pingla	62.50	1 <i>7</i> .50	25.00	2.50	12.50	25.00	11.30	12.50	1.30	5.00
Sabong	57.90	21.10	15.80	10.50	10.50	36.80	15.80	10.50	10.50	4.70
Narayangarh	57.90	20.50	21.10	3.20	15.80	42.10	10.50	26.30	3.20	3.70
Keshiary	61.50	16.20	30.80	3.90	13.90	30.80	3.10	23.10	2.30	2.30
Dantan-I	77.80	33.30	33.30	3.30	15.60	22.20	5.60	22.20	1.10	2.20
Dantan-II	57.50	20.00	30.00	2.50	17.50	30.00	7.50	15.00	2.50	5.00
Mohanpur	76.70	26.70	26.70	6.70	16.70	26.70	6.70	16.70	3.30	3.30

During the period from 1991 to 2001 all the 29 blocks of the district registered very high increase in the proportion of ST marginal workers to ST total workers, which got its influence felt on the sizeable increase in the proportion of ST marginal workers to ST total population in the blocks. Despite this substantial increase in the proportion of ST marginal workers to ST total population ST work participation rate, i.e., proportion of SC total workers to SC total population, did not register increase in all the blocks. Rather, there are 7 blocks that witnessed decline in the SC work participation rate during 1991-2001. These blocks are Dantan-II, Dantan-II, Keshiary, Kharagpur-I, Mohanpur, Narayangarh, Medinipur.

Table 7.10 Broad Classifications of Scheduled Tribe Workers in Blocks and Municipality in Paschi Medinipur District, 1991 & 2001

Name of Block/ Municipality	Year	% of MRW to TW	% of MRW to total Population	% of TW to Total Population (WPR)
Chandrakona - I	1991	3.75	1.70	45.38
	2001	34.65	16.27	46.95
Chandrakona - II	1991	3.25	1.66	51.21
	2001	27.97	13.08	46.79
Daspur - I	1991	3.13	1.72	54.90
	2001	20.15	10.92	54.19
Daspur - II	1991	-	-	48.15
	2001	9.09	4.29	47.22

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Name of Block/ Municipality	Year	% of MRW to TW	% of MRW to total Population	% of TW to Total Population (WPR)
Ghatal	1991	2.12	1.09	51.30
	2001	30.86	14.95	48.45
Binpur - I	1991	13.22	7.05	53.30
	2001	43.63	23.98	54.97
Binpur - II	1991	14.81	8.26	55.79
	2001	56.44	30.23	53.55
Gopiballavpur - I	1991	8.88	4.66	52.52
	2001	30.16	15.35	50.89
Gopiballavpur - II	1991	10.60	5.57	52.54
	2001	30.52	15.32	50.20
Jamboni	1991	15.34	8.28	54.00
	2001	49.23	26.21	53.24
Jhargram	1991	12.01	5.89	49.04
	2001	48.05	24.82	51.65
Nayagram	1991	20.03	11.14	55.59
	2001	42.42	25.97	61.22
Sankrail	1991	10.61	5.90	55.59
	2001	45.57	23.72	52.06
Dantan - I	1991	11.34	7.63	67.28
	2001	33.34	16.08	48.22
Dantan - II	1991	3.56	1.77	49.78
	2001	43.95	20.78	47.28
Debra	1991	4.14	2.27	54.71
	2001	39.71	22.12	55.71
Keshiary	1991	6.79	3.55	52.36
	2001	40.87	20.94	51.25
Kharagpur - I	1991	8.80	3.85	43.78
	2001	40.11	17.34	43.24
Kharagpur - II	1991	8.40	4.26	50.77
	2001	45.19	23.55	52.11
Mohanpur	1991	4.22	1.98	46.90
	2001	29.14	12.38	42.48
Narayangarh	1991	13.99	7.07	50.56
	2001	45.94	22.81	49.65

Name of Block/ Municipality	Year	% of MRW to TW	% of MRW to total Population	% of TW to Total Population (WPR)
Pingla	1991	6.82	3.39	49.67
	2001	23.93	13.15	54.94
Sabang	1991	9.70	4.59	47.27
	2001	3.53	1.96	55.68
Garhbeta - I	1991	6.73	3.20	47.62
	2001	34.57	18.19	52.61
Garhbeta - II	1991	10.28	5.50	53.54
	2001	36.38	20.69	56.87
Garhbeta - III	1991	13.32	7.11	53.39
	2001	37.72	20.53	54.42
Keshpur	1991	5.86	2.86	48.71
	2001	42.29	20.81	49.22
Medinipur	1991	10.58	5.37	50.74
	2001	37.73	18.48	48.97
Salbani	1991	16.56	8.03	48.48
	2001	40.37	20.50	50.78

Source: Census of India 1991 and 2001

During the period from 1991 to 2001 eight blocks of the district, namely Chandrakona-I, Daspur-II, Dantan-II, Debra, Kharagpur-II, Pingla, Sabong and Keshpur recorded increase in the proportion of ST cultivators to ST total workers. 12 blocks out of 29 blocks registered increase in the proportion of ST agricultural labourers to ST total workers. These blocks are Dantan-I, Ghatal, Binpur-II, Gopiballavpur-I, Gopiballavpur-II, Kharagpur-II, Mohanpur, Narayangarh, Garhbeta-II, Garhbeta-III and Salboni. During this period all the blocks excepting three (Mohanpur, Narayangarh and Pingla) recorded increase in proportion of ST household industry workers. 27 blocks registered sizeable increase in the proportion of ST non-agricultural workers during this period, the exceptions being Ghatal and Kharagpur-II. Despite these only two blocks, namely Kharagpur-I and Kharagpur-II recorded above 50 percent ST non-agricultural workers which are having relatively low values of human development index. Therefore, the case of distress diversification of economic livelihoods of STs in these blocks can not be ruled out.

Table 7.11 Percentage Distribution of Scheduled Tribe Workers in Blocks and Municipality in Paschim Medinipur District, 1991 and 2001

Block/	Year	% of	%of	% of Household	% of	Non-
Municipality		Cultivators	Agricultural	Manufacturing	Other workers	agricultural
			Labourers	and Processing		Workers %
Chandrakona - I	1991	13.88	82.84	0.36	2.91	3.28
	2001	18.04	73.69	1.64	6.56	8.26
Chandrakona - II	1991	29.55	68.13	0.32	2.00	2.32
	2001	23.42	65.37	4.58	6.64	11.21

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Block/	Year	% of	%of	% of Household	% of	Non-
Municipality		Cultivators	Agricultural	Manufacturing	Other workers	agricultural
			Labourers	and Processing		Workers %
Daspur - I	1991	9.20	85.09	-	5.72	5.72
	2001	3.16	77.83	0.96	18.05	19.02
Daspur - II	1991	-	93.59	-	6.41	6.41
	2001	8.13	65.00	1.88	25.00	26.88
Ghatal	1991	20.35	78.14	0.00	1.52	1.52
	2001	4.08	95.24	0.97	5.54	0.68
Binpur - I	1991	49.79	43.75	2.48	3.99	6.47
	2001	41.59	42.78	3.73	11.90	15.63
Binpur - II	1991	58.10	33.91	3.61	4.39	8.00
	2001	40.13	35.99	9.18	14.7	23.88
Gopiballavpur - I	1991	36.17	57.63	1.97	4.23	6.20
	2001	32.01	58.65	3.87	5.47	9.34
Gopiballavpur - II	1991	35.25	61.22	0.60	2.93	3.53
	2001	29.87	62.26	1.48	6.39	7.86
Jamboni	1991	35.26	56.57	1.42	6.76	8.17
	2001	26.71	53.88	3.48	15.93	19.41
Jhargram	1991	38.75	53.91	0.92	6.42	7.34
	2001	27.10	49.43	1.92	21.55	23.47
Nayagram	1991	43.90	36.06	16.78	3.25	20.04
	2001	34.15	32.78	19.64	13.42	33.07
Sankrail	1991	42.21	52.47	2.66	2.65	5.32
	2001	34.07	51.65	4.55	9.73	14.28
Dantan - I	1991	27.73	62.29	6.27	3.71	9.98
	2001	18.88	62.61	7.44	11.07	18.51
Dantan - II	1991	12.34	84.48	0.84	2.35	3.19
	2001	12.81	78.49	1.10	7.59	8.70
Debra	1991	9.15	86.13	0.66	4.06	4.72
	2001	10.33	80.19	0.88	8.6	9.48
Keshiary	1991	29.67	66.99	1.17	2.17	3.34
	2001	28.79	61.87	1.84	7.51	9.34
Kharagpur - I	1991	16.89	59.14	0.72	23.26	23.98
	2001	10.17	39.81	0.73	49.28	50.02
Kharagpur - II	1991	12.21	7.92	1.04	78.84	79.88
	2001	14.26	22.42	2.33	18.22	63.33
Mohanpur	1991	19.68	72.00	3.80	4.52	8.32
	2001	17.35	72.77	1.94	7.95	9.88
Narayangarh	1991	25.42	68.24	2.54	3.79	6.34
	2001	17.02	71.07	2.14	9.77	11.91

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Dla al./	Vaar	% of	%of	0/ of Household	% of	Non
Block/	Year			% of Household		Non-
Municipality		Cultivators	Agricultural	Manufacturing	Other workers	agricultural
			Labourers	and Processing		Workers %
Pingla	1991	17.50	79.56	0.86	2.09	2.95
	2001	18.28	76.08	0.76	4.87	5.64
Sabang	1991	19.24	76.57	0.83	3.36	4.19
	2001	21.76	71.03	1.28	47.28	7.22
Garhbeta - I	1991	46.63	48.92	0.88	3.56	4.45
	2001	28.45	62.55	2.18	6.82	9.00
Garhbeta - II	1991	54.44	42.22	0.79	2.55	3.34
	2001	41.66	46.46	4.48	7.40	11.88
Garhbeta - III	1991	40.09	54.76	1.50	3.65	5.15
	2001	27.52	55.32	7.12	10.04	1 <i>7</i> .16
Keshpur	1991	22.73	<i>7</i> 5. <i>77</i>	0.23	1.26	1.49
	2001	32.41	58.01	3.08	6.50	9.58
Medinipur	1991	24.94	64.09	0.57	10.40	10.96
	2001	22.50	59.43	2.19	15.88	18.07
Salbani	1991	46.22	48.23	1.15	4.40	5.55
	2001	32.71	51.87	5.23	10.19	15.42

Source: Census of India 1991 and 2001

Breakdown of ST total workers into ST main workers and ST marginal workers reveals some interesting findings for the ST community from the analysis of census data. Agriculture remains the main stay of economic livelihoods of the ST people as their main or marginal occupations much more than of the SC community. Most of the STs live on agricultural labour which is much more important than cultivation as cultivator. There are 14 blocks out of 29 blocks of the district where more than 40 per cent of the ST total workers are ST main agricultural labourers. These blocks are Garhbeta-II, Chandrakona-I, Chandrakona-II, Ghatal, Daspur-I, Daspur-II, Gopiballavpur-I, Gopiballavpur-II, Debra, Pingla, Sabong, Dantan-I, Dantan-II, and Mohanpur. Binpur-II is the block where above 57 workers are marginal workers of which above 39 per cent are marginal agricultural labourers. Jhargram and Jamboni are two blocks where above 48 per cent of ST total workers are ST marginal workers of which 39 per cent and 38 per cent respectively are ST marginal agricultural labourers. These three blocks constitute the very low ranks in the list of human development index. There are 13 blocks where above 30 per cent ST agricultural labourers are ST marginal workers. These blocks are Binpur-II, Binpur-I, Ghatal, Keshpur, Mohanpur, Jhargram, Jamboni, Sankrail, Kharagpur-I, Kharagpur-II, Debra, Narayangarh and Keshiary most of which are having low value of human development index. There are four blocks where at least 10 per cent of ST non-agricultural workers are marginal workers. These blocks are Binpur-II, Garhbeta-III, Salboni and Nayagram.

Table 7.12 Percentage of ST Main workers and ST marginal workers to ST total workers in Blocks of Paschim Medinipur District, 2001

Block		Percentage of to to	of ST mai oal worke		rs		Percentage o	of ST marg toal work		cers
	Total	Cultivator	Agl. Lab.	HHI worker	Other workers	Total	cultivators	Agl. Lab.	HHI workers	Other workers
Binpur-II	42.42	18.18	15.15	3.94	5.36	57.58	6.06	39.39	7.18	2.73
Binpur-I	59.09	20.73	22.73	2.27	9.09	40.91	9.1	27.82	2.27	1.36
Garhbeta-II	66.67	26.67	33.33	2.67	4.67	33.33	6.66	16.00	8.00	2.00
Garhbeta-I	66.67	17.78	43.44	1.11	4.44	33.33	4.44	23.45	2.22	1.11
Garhbeta-III	63.64	17.27	35.36	4.55	6.36	36.36	2.73	18.18	11.82	3.64
Chandrakona I	62.50	8.33	45.83	4.00	4.17	37.5	4.17	29.17	-	4.17
Chandrakona-II	72.22	16.67	45.00	4.56	5.56	27.78	5.56	22.22	-	-
Ghatal	68.75	-	62.50	-	6.25	31.25	-	31.25	-	-
Daspur-I	82.14	3.57	64.29	-	14.29	1 <i>7</i> .86	-	14.86	-	3.57
Daspur-II	85.60	7.00	55.60	1.60	21.4	14.4	0.5	10.7	-	3.2
Keshpur	59.52	17.86	31.33	2.38	3.57	40.48	2.38	34.71	1.19	2.38
Salboni	60.00	19.33	32.33	2.33	6.00	40.00	2.66	26.67	7.33	3.34
Medinipur	60.00	13.33	36.00	1.33	9.33	40.00	2.00	33.33	1.34	2.66
Jhargram	51.45	14.08	25.68	1.00	11.20	48.55	4.33	39.17	1.76	2.79
Jamboni	50.77	13.56	27.36	1.77	8.09	49.23	6.23	37.89	3.01	2.10
Gopiballavpur-II	72.73	20.91	45.45	0.91	4.55	27.27	3.64	22.27	-	1.82
Gopiballavpur-l	70.59	21.76	40.18	2.94	3.53	29.41	2.94	23.53	2.35	1.18
Nayagram	56.67	20.00	20.00	10.00	6.67	43.33	3.33	10.00	23.34	6.67
Sankrail	53.85	18.46	28.77	2.31	4.38	46.15	5.39	38.46	1.54	1.54
Kharagpur-I	62.50	6.25	25.00	0.63	31.25	37.5	2.50	27.25	0.63	6.26
Kharagpur-II	57.14	8.10	35.19	1.43	10.00	42.86	3.33	38.1	0.48	1.43
Debra	60.71	6.07	43.43	0.71	5.00	39.29	1.78	35.72	0.36	1.42
Pingla	77.78	13.33	51.56	1.11	3.33	22.22	5.55	16.78	-	1.11
Sabong	68.75	14.00	50.00	1.25	3.75	31.25	3.75	25.25	1.25	1.26
Narayangarh	53.10	8.97	37.93	1.03	5.17	46.90	2.75	37.93	2.06	3.68
Keshiary	56.52	16.96	34.78	0.87	4.35	43.48	3.04	34.79	1.74	3.44
Dantan-I	66.67	12.50	41.67	5.00	7.50	33.33	2.50	25.00	1.66	3.66
Dantan-II	56.05	7.50	42.50	1.00	5.05	43.95	4.42	39.43	0.33	0.50
Mohanpur	70.86	15.00	49.00	1.86	5.00	29.14	2.40	25.76	0.64	0.34

Source: Census of India 2001

# **Tribal Economy of the district**

Traditionally tribals had their specific activity by community. Santhals are known to be settled agriculturalists and hence cultivation has been their principal activity. Similarly Mundas are livestock rearer, Bhumijs are craftsmen of stoneware and stone works, Mahalis are basket makers etc. The primitive tribesmen Lodhas remained dependant on forests with different extraction activities and later became agricultural labourer when forests were denuded and degraded. Each tribal community of Paschim Medinipur thus depended on specific principal activity, though with one or two secondary activities to support for better livelihood. Table 7.14 enlists the primary and secondary activities adopted by different tribal communities of Paschim Medinipur.

**Table 7.13 Principal and Secondary Activities of Tribal Communities** in Paschim Medinipur

Tribe	Principal Activity	Secondary Activity		
Santhal	Cultivation	Agriculture Labour		
Bhumij	Agriculture Labour	Stoneware & Stone work		
Munda	Live stock rearing & cultivation	Agriculture Labour		
Lodha	Agriculture Labour	Extractive activity		
Kora	Agriculture Labour	Earth work		
Mahali	Basket making & Bamboo crafts	Agriculture Labour		

# Forest relationship of the Tribal

Most of the Tribals here were basically forest dependent people and they were relying on forest for centuries as their principal source of food, fodder and fuel. In fact, they remained as the custodian of the forest till the British Government intervened in their rights and claims with the enforcement of the Forest Act, 1896. They are also the worshippers of forest trees and still today they maintain many sacred grooves in this District. Many festivals are aimed at generating prosperity in the forest sector. With the introduction of Forest Policy, 1986 followed by GO in 1990 for constituting FPCs to protect forest in their earmarked forest village areas, the tribals had to suffer a lot. JFM with the noble idea of protection and distribution of usufruct benefits could change the forest health and wealth to a significant extent. But with the increasing village (FPC) population and animal stock the pressure of biotic intervention increased and the benefit accrued directly to the members of 3000 FPCs of the District remained meager for their sustenance. This has caused erosion to the initial impulse of FPC activities and many forest tracts are now subjected again to the process of deforestation. It is now the turn of the Govt., Panchayat and concerned NGOs to create income generating activities for their minimum livelihood sustenance without which the cordial relation between the forests and tribal will be difficult to be maintained.

# **Lodha Community - The Largest Primitive Tribe**

The Lodhas are considered as one of the largest primitive tribes in West Bengal. They are distributed over and the Western part of West Bengal, a contiguous territory of Chhoto Nagpur Plateau, which spreads along the western border of Medinipur. The Lodhas are significantly different in tenns of physical and cultural affinities from their neighbouring communities like the Santal, the Munda, the Kora, the Kharia, the Mahato and the Bhumij.

But the Census of India clubbed the Lodhas with the Kharias. They are primarily a food -gathering people, who mainly subsist by collecting wild roots, tubers and edible leaves from the jungles as well as

# Community Development and Diversity

hunting wild animals, birds and reptiles, which they use as food and sell the skin. They also collect Tosser, cocoons, 'which are sold to a specialized group of people of the weaver community who prepare cloth out of these. Some of the Lodha families live on the collection of Kend leaves, which they sell to outside traders for manufacturing Bidi (country-cigars) 'with pounded tobacco mixed with these. Some of them also catch fish and collect firewood from forest and sell those in the local market to earn their living. The following ethnographic note is based on published materials as well as the present study's field observation.

The term 'Lodha' is possibly derived from the Sanskrit word Lubdhaka, meaning a trapper of fowl. There is a land holding group in Madhaya Pradesh named 'Lodha'. They have immigrated from Uttar Pradesh but originally belong to Ludhiana District in Punjab. They are named as Lodha, after the place of their origin. According to Nesfield, the name Lodha or Ludhi has two different derivatives. One is Lad, which means Clod, according to which Ludhi means a clodhopper. The other is that the Lodha have adopted their name from the Lodh tree, which grows in abundance in the northern India, the bark of which is collected and sold as dyeing agent.

The Lodha feel pride in asserting themselves as the Savara, a generic genn used in ancient literature for the forest-dwelling communities. Actually, they are a gathering-hunting community. Once they depend on the bounty of forests. Collection of jungle produce, edible roots and tubers, small games etc. was their main occupation, but after the enactment of the 'Permanent Settlement Act' (1793) by the then British administration, the entire region of forests was given to the landlords and in this way their right over the forest produce was set at naught; ultimately, they became paupers from the level of poverty. Helpless as they are, they were flooded with all sorts of criminal activities, true or imaginary. Goaded by the pangs of hunger and tyranny of the rich receivers belonging to varied political parties, the Lodha practically had no other alternative than to fall back upon for a living. Territorial and economic displacement made them real pagans. The economically displaced Lodha could not adopt them to the changing situation and ultimately they were further driven to a precarious existence. The growing needs of their expanding family fixed them in a frame of narrow territory in which they could not meet their dire needs with small and irregular income. Unending frustration and lack of self-confidence brought in its train a perpetual stagnation in their collection life, which subsequently turned them into inveterate criminals with every thrust of waves of the changing circumstances. Thus, criminality cut a deep gorge and these helpless people had to role down helplessly in it.

But, now-a -days, we find some distinctiveness in the group. Some of those who live mainly on the southern bank of the river Subamarekha, including the areas in Jhargram and Jamboni Police Stations have categorized themselves as Jungle Lodha, whereas the other section who possibly migrated to the eastern tract (less forested region), where they have come in contact with the agrarian communities from whom they have gradually learnt the art of agriculture. Thus being accustomed to the techniques of agriculture, they now work as agricultural works. Their access into the forest due to forest laws became very limited. Extensive work has been done by P.K. Bhowmick (1963, 1972, 1975, 1980, 1990) on the life and culture of the Lodhas on whom he is considered as the authority. Some other important works on this tribe were done by Sarkar (1974), Ray (1967), Gupta (1976), Das and Banerjee (1964).

The Lodha, as a whole, has very distinctive Characteristics - they are stout and strong, ever disbelieving the alien group as they are being cheated and exploited by the latter all the time; they are

basically lazy and take to sharp practices, speak in distorted local Bengali dialect with on admixture of Austric words.

# Life Style of Lodha

Hunting and gathering is regarded as their main economy. They collect honey and faggots, Tosser cocoons or gouty, from the jungles and also edible roots and tubers and small games from the same place.

They sell their collections to the local people at ~ throwaway price and purchase some of their essential food articles in exchange. The bows and arrows, digging sticks or axes are their main items or equipment. They also hunt various poisonous and non-poisonous snakes, lizards, the skins of which are sold to local people at a high price. Regarding their economic activities, as stated earlier those who live near to the jungles, collect firewood, put them in bundles and sell them to the nearest market or locality. They spend their sale proceeds on food and other essential articles. Sometimes they are found to work as wage earners, working in the field of others or in road construction work of some such activities. After the rainy season, they get some employment opportunities as well as they collect various fruits, water lily, molusca to maintain their daily life. But in the summer season, due to insufficient employment opportunities, they face a famine like condition.

Most of the Lodhas' huts are thatched; mud built and looks rectangular without having any window. The Lodha people do not have cultivable land of their own, though they use Khas or government lands for doing rudimentary agriculture. A few among them have been given some land by the government for cultivation. They use earthenware vessels as cooking utensils. For cutting and felling trees, they use axe and for digging roots and tubers they use a type of digging spade with a sharp iron-blade, hafted into a wooden shaft. For hunting purpose they use bows and arrows. They also use fish traps, mortar and pestles.

Most of the male and female Lodha wear a single piece of lawn cloth. Some of the male members use pant and shirts available in the local market. The female of them use bangles and a few pieces of cheap ornaments.

The Lodha are patriarchal as well as patrilineal people. The whole community is divided into a few exogamous clans, which have their respective totems. Each member of the clans pays respect to the totemic object and never kills or injures the totem animal / bird / object.

After marriage, girls leave their father's clan and become members of their respective husband's clan. Members of the Kotal clan declare their used earthenware on the occasion of every new moon. For women of this clan sporting conch -shell bangles is a taboo.

Most of the Lodha families are nuclear in nature, though joint or extended families are not rare. There is case of polygamous unions too. Marriage by payment or bride price is the general rule. The bridegroom has to pay a bride price along with some clothes as presentation to the members of the brides' family. When a girl is married at a tender age, a second marriage ceremony is performed after she has attained puberty. In case of offering bride price, the money is placed on a brass plate by the Sambar, or chief. In some places especially in the remote areas, on the day of marriage an alter of clay is raised under a Sidha tree - where all the village functionaries are invited to bless the couple.

Widow remarriage is in vogue among the Lodha. Sometimes the deceased elder brother's wife is married to the younger brother, for whom no bride price is required to be paid or formal rituals have to be performed. This type of marriage is known as Sanga.

The Lodha have their own tribal council, known as Panchayat which is headed by a Mukhia. The messenger is called Dakua or Atgharia. His responsibility is to inform the villagers the decisions and directives of the Panchayat on village affairs. In a traditional council, personal disputes of the villagers and general problems of village administration are discussed. This council is also responsible to organise the annual worships and other celebrations. If a person is found guilty, then traditional council impose fine or ostracise him or her as per the nature of offence. Their sacred head is known as Dehari, who is assisted by Talias while sacrificing goats. A number of sorcerers and magicians are available in different villages.

The tutelary village deity of the Lodha is Baram or Garam. This worship is necessary for the welfare of the villagers as a whole. Beside Baram, they worship goddess Sita, who is considered to be the controlling deity of epidemic diseases like Cholera and Pox. Goddess Chandi is also worshipped for cure of chronic

# Community Development and Diversity

diseases. Manasa is supposed to be the controlling deity of the snakes and the snake charmers of the Lodha community arrange her worship. During marriage and some other celebration, they also propitiate Basumata or Mother Bard and Dharma Devata or the God of Righteousness. But they do not make any sacrifice for their appearament. They are benevolent deities. The Lodha also believe in various malevolent spirits who control their destiny. Naturally many rituals are performed and animals are sacrificed for appearing them.

After the annual worship of Baram or Sita, festivals are held in villages. Their traditional drum is called Changu, which is played on untiring zest by expert drummers, and songs composed in distorted Bengali and are sung in chorus, accompanied with dance by their female members. A few songs are devotional in nature in which popular Hindu Gods and Goddesses are incorporated through the process of acculturation. There are few Baramasi songs depicting the episodes of twelve months connected with some heroes of the epics. They also participate in Tusu festival, which is very common in the western of West Bengal.

After the repeating of Criminal Tribes Act in 1952 the Lodha got a new nomenclature, the denotified tribe. Still they had to face many problems, as they were basically dependent on forest produce and hunting. Since they were not in a position to change their mode of life with the rapidly changing circumstances, the realities appeared harsh to them.

# **Health Problems**

So far health status and persisted health problem is concerned, the Lodha community suffer trom the disease like influenza, typhoid, malaria, cough, blood dysentery, hopping cough, diarrhoea, skin disease, arthritids. Due to the alcoholic habits, the Lodha are found to be suffered from Jaundice.

# **Main Occupations**

It is true that a society without a stable economy usually disintegrates in no time, particularly in the case of a backward community like the Lodha. It is a fact that for their exclusiveness and isolated way of life for ages in the past, and the stigma or criminality hurled at them; they are looked down upon and suspected by others. The neighbouring communities treat them 'with an unsympathetic bias and, as a result, they do not get proper guidance and stimulus from others. They have neither any idea about the means of countering or shaping the economic forces to their advantages, nor can they keep pace with the march of time and change. Consequently, they have remained petulant in their primitive economy of food - gathering and hunting, and have very little knowledge about the agricultural practices as yet, while their neighbours have marched ahead and achieved prosperity.

Before the attainment of independence, no attempt was made for the socio-economic development of these communities. Some years later, when the criminal Tribes Act was repealed in 1952, the Central and State Governments gave some thought to the matter of amelioration of the wretched condition of these people and resolved to rehabilitate a few selected Lodha families in the district of Medinipur

The humble beginning of the rehabilitation work was made in a very modest way without sufficient financial assistance, and without even making any scientific assessment of the problems and needs of the Lodha. In order to help the Criminal Tribes in this respect, Home (police) Department attempted to form a co-operative society and through this society some land were purchased. This initiative was taken at Auligerias, Jhargram, when the Lodha were declared as a de-notified tribe. Another rehabilitation programme at Pukuria, near Jhargram is still going on. After that, the Government came forward to do welfare work in the form of house construction, goat-rearing etc. But all these efforts ended in a fiasco and became the butt of criticism. Then, these groups of people were treated as Primitive Tribal Groups (1979) when special assistance was given and a Lodha call under the I. T. D. P. was constituted for utilising funds profitably through the Blocks, headed by a project officer located at Jhargram.

Both male and female of the Lodha community depends mainly on food gatherings & hunting. Some of them are engaged in agricultural operation as hired labourer. The Lodha, as they have little land of their own, are in great demand for agricultural labourer. Besides this they are having some income from livestock, forestry, mining & quarrying, household industries, trade & commerce, constructions, carpentry etc. In spite of all these attempts, their obdurate behaviour is related to their habit of gathering hunting economy and these in course of time became their habits and angularities, which persist, in their cultural and social life.



Map 7.1 Lodha Populated Blocks of Paschim Medinipur District

**Table 7.14 Lodha Families in different Blocks of Paschim Medinipur District** 

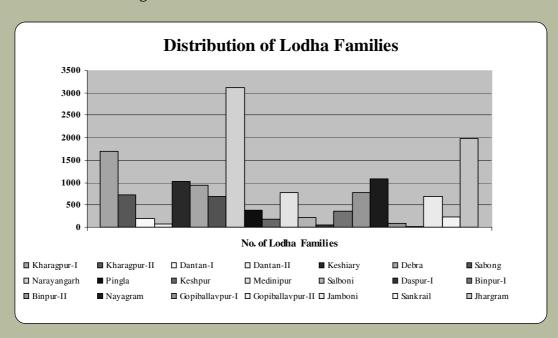
S.L. No.	Name of the Block	No. of Mouza	No. of Lodha Families	Total No. of Lodha People	Male	Female
1	Kharagpur-I	45	1696	7019	3615	3404
2	Kharagpur-II	28	722	2821	1421	1400
3	Dantan-I	5	196	750	343	407
4	Dantan-II	3	66	273	138	135
5	Keshiary	15	1035	4312	2173	2139
6	Debra	18	935	4714	2427	2287

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S.L. No.	Name of the Block	No. of Mouza	No. of Lodha Families	Total No. of Lodha People	Male	Female
7	Sabong	11	679	2555	1298	1257
8	Narayangarh	55	3125	12099	6099	6000
9	Pingla	7	376	1230	570	660
Tota	l of Kharagpur Sub-division	187	8830	35773	18084	17689
10	Keshpur	7	183	644	314	330
11	Medinipur	28	780	3060	1585	1475
12	Salboni	12	213	873	487	386
Tota	l of Medinipur Sub-division	47	1176	4577	2386	2191
13	Daspur-I	4	50	167	88	79
Tota	l of Ghatal Sub-division	4	50	167	88	79
14	Binpur-I	8	359	1509	712	797
15	Binpur-II	60	770	3095	1565	1530
16	Nayagram	27	1090	4072	2054	2018
17	Gopiballavpur-I	2	85	274	141	133
18	Gopiballavpur-II	1	20	70	42	28
19	Jamboni	37	679	2585	1315	1270
20	Sankrail	6	235	948	500	448
21	Jhargram	91	1988	7136	3636	3500
Tota	l of Jhargram Sub-division	232	5226	19689	9965	9724
Tota	l of Paschim Medinipur	470	15282	60206	30523	29683

Source: Project Officer, BCW, Paschim Medinipur

**Figure 7.4 Lodha Families in different Blocks** 



# **Field Studies On Migration**

# 1. Narayanpur village under Raskundu-1 Gram Panchayat of Garhbeta III block

- Total numbers of surveyed households are 20 which comprise 8 numbers of ST families, 5 numbers of SC families and 7 numbers of general caste families.
- Economic condition of ST families is poor compared to that SC and General Caste families.
- Own land holding of ST families is near zero, for SC families it is 20 decimals to 100 decimals and for general caste families it is 80 decimals to 360 decimals. Number of working days per month varies between 15 and 20. Per day wage rate is Rs 55 and 1.5 kg rice. Source of income of general caste families is cultivation in own land and business along with cultivation. SC families derives livelihood from cultivation in own limited land and as agricultural labourer.
- Some ST families migrate to the neighbouring developed areas and districts for work in agriculture.
- Major of the sample households have livestock but no insurance done. Piglets were given to five ST families at subsidized rates under SGSY to the SHGs. After six months of rearing and starting piggery these pigs died of diseases. No animal developments services were available to these ST families.

# 2. Bilasbar village under Jhetla Gram Panchayat of Keshpur Block

- Sample households are mainly SC and others are from other minority communities.
- Main economic activities of sample households of this village comprise agricultural labour and cultivation.
- Over 50 per cent of the sample 20 SC and other minority households on temporary migration to neighboring districts and areas in search of job, especially in rice and potato plantation and harvesting time.

# 3. Muradanga village of Kankabati Gram Panchayat.

- Sample households are mainly ST families.
- Main economic activities of ST families for both male and female members are agricultural labor work /casual labour work, construction work (Masson work and Road work), loading and unloading work in F.C.I., work in rice mill, and business.
- Some family members migrate to neghbouring districts and areas in search of jobs in road construction.
- Most of the families have no electric connection.
- Most of the male members are addicted by local alcohol (heria) while their female counterparts are struggling to abolish alcohol shops from their local area.

#### **COMPARATIVE STUDIES OF COMMUNITIES**

# **Housing Condition**

Most of the sample 300 households (51 per cent) have Type 2 housing, i.e., one room for living. Above 65 per cent of the sample ST and Muslim families have got this type of housing while less than 40 per cent of

# Community Development and Diversity

sample general caste families have this Type 2 housing. Type 3 housing is available for the highest percentage of SC families (48.15 per cent) followed by the general caste families (43.80 per cent).

Social	Type 1	Type 2	Type 3	Type 4	Type 5	Total no.
Category	%	%	%	%	%	НН
General	0.00	39.67	43.80	5.79	11.57	121
Minority	0.00	65.63	21.88	12.50	0.00	32
SC	0.00	51.85	48.15	0.00	0.00	81
ST	1.52	65.15	27.27	0.00	6.06	66
Total	0.33	51.00	39.00	3.67	6.00	300

# **Classification of Workers**

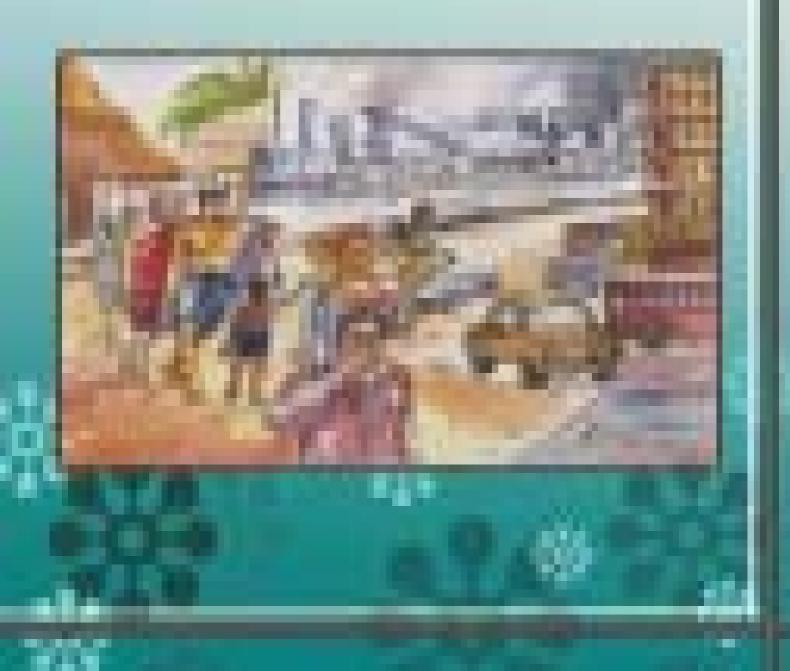
Of the total agricultural workers in 300 sample families 45.58 per cent are farmers and the rest, i.e., agricultural labourers. Only 17.53 per cent of ST agricultural workers are farmers while among the general castes 73.89 per cent are farmers. On the other hand, 82.47 per cent of the agricultural workers are agricultural labourers followed by SCs. Percentage of non-agricultural workers is highest among Minorities (73.91) the lowest being registered among SCs (27.47 per cent).

Category	Farmers		Agricultural labourers		Total agr wor		Total Non-agricultural workers		
	No. of farmers	%	No. of workers	%	No. of workers	%	No. of workers	%	
General	116	73.89	41	26.11	157	61.57	98	38.43	
Minority	6	50.00	6	50.00	12	26.09	34	73.91	
SC	44	33.33	88	66.67	132	72.53	50	27.47	
ST	1 <i>7</i>	17.53	80	82.47	97	66.44	49	33.56	
Total	183	45.98	215	54.02	398	63.28	231	36.72	

# **Summing up**

To sum up, differential and diversity across caste and religious community in respect of literacy and work participation across the blocks explain substantially the differential in human development index across the district.

# CHAPTER - VIII DUUGZUUM E DIOCHTULLISTON



# Urbanization and Industrialization

# **Chapter - VIII**

# **Urbanization and Industrialization**

# 8.1 Trends of urbanization in Paschim Medinipur district

This section focuses on the urbanization levels in the Paschim Medinipur district along with the relevant issues at the municipal level. The percentage of urban population in the district was established as 11.9 per cent as per the '2001 Census' data. In addition to the eight municipalities in Paschim Medinipur, the Urban Development Department, Govt. of West Bengal has constituted the Midnapore - Kharagpur Development Authority (MKDA). The MKDA planning area comprises of two municipalities (Medinipur and Kharagpur) and 13 gram panchayats which encompasses 464 mouzas covering an area of 596.76 sq. km with a population of 719686 (2001 Census).

It is observed in Table 8.1 that the overall percentage of urban population has kept increasing since 1901 but for 1991-2001. The urban population in the district is spread mostly over eight municipalities and their details are presented in Tables 8.2(a) and 8.2(b). While, these municipalities include 9.74 % of the total population in the district, the rest of the urban population is spread over 'Census towns' like Durllabhganj, Balichak, Deuli etc. The present report focuses on the eight municipalities mentioned above. Five of these municipalities fall under the jurisdiction of the Ghatal Sub-division, with Jhargram, Sadar and Kharagpur sub-divisions having one municipality each. The population densities of these municipalities were also found to vary from 10133 persons/Sq. Km in Medinipur to 1118 persons/Sq. Km. in the Kharar municipality indicating significant differences in the levels of urbanization. It is observed that the total percent of urban population has reduced from 10.07% in 1991 to 9.74% in 2001. Though all municipalities have shown an increase in urban population over 1991, Kharagpur municipality has shown a decline in urban population from 4.04% in 1991 to 3.63% in 2001 and its share of district's urban population declined from 40.12% in 1991 to 37.27% in 2001.

**Table 8.1 Growth of Population by Sex in different Census Years in Paschim Medinipur District** 

Year	Total Population (Number)	Index with 1901 as base	Male	Female	No. of females per 100 males	Urban	Rural	% of urban population to total population
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1901	2789114	100	1390233	1398881	101	89876	2699238	3.22
1911	2821201	101	1410714	1410487	100	101855	2719346	3.61
1921	2666660	96	1339652	1327008	99	96869	2569791	3.63
1931	2799093	100	1417025	1382068	98	138584	2660509	4.95
1941	3190647	114	1631673	1558974	96	188047	3002600	5.89
1951	3359022	120	1718459	1640563	95	252880	3106142	7.53
1961	4341855	156	2224073	2117782	95	334286	4007569	7.70
1971	5509247	198	2831863	2677384	95	420156	5089091	7.63
1981	6742796	242	3455375	3287421	95	572757	6170039	8.49

# Urbanization and Industrialization

Year	Total	Index	Male	Female	No. of	Urban	Rural	% of urban
	Population	with 1901			females			population
	(Number)	as base			per 100			to total
					males			population
1991*	4486279	100	2301869	2184410	95	567567	3918712	12.65
2001*	5193411	116	2648048	2545363	96	617760	4575651	11.90

Note: 1901 to 1981 for Undivided Medinipur district

Source: Census of India

Table 8.2(a) Area, Population and Population Density in Urban Areas of Paschim Medinipur District, 1991

Sub-Division / Municipality	Area in Sq.km.	Population (Number)	Density per Sq. km.	% of population to district population	Share of District's Urban population
(1)	(2)	(3)	(4)	(5)	(6)
Jhargram Sub-Div .	3045.13	874745	288	19.87	
Jhargram (M)	17.04	42094	2470	0.96	9.53%
Sadar Sub-Div.	2424.23	1031279	422	23.43	
Medinipur (M)	14.78	125498	8491	2.85	28.30%
KharagpurSub Div.	2729.01	1679164	576	38.15	
Kharagpur(M)	90.65	1 <i>77</i> 989	1963	4.04	40.12%
Ghatal Sub. Div.	915.13	816839	857	18.56	
Chandrakona-(M)	16.58	16804	1014	0.38	3.77%
Khirpai(M)	11.65	12199	1047	0.28	2.78%
Ramjibanpur(M)	10.36	14904	1439	0.34	3.38%
Kharar (M)	10.36	10314	996	0.23	2.28%
Ghatal(M)	10.36	43770	4225	0.99	9.83%
District Total 1991	9295.28	484559	450	100.00	
Total Urban Population as	10.07	100%			

Source: Census of India, 1991

<sup>\* =</sup> Index with 1991 as base for Paschim Medinipur

Table 8.2(b) Area, Population and Population Density in Urban Areas of Paschim Medinipur District, 2001

Sub-Division / Municipality	Area in Sq. km.	Population (Number)	Density per Sq. km.	% of population to district population	Share of District's Urban population
(1)	(2)	(3)	(4)	(5)	(6)
Jhargram Sub-Div .	3045.13	1008030	332	19.41	
Jhargram (M)	17.04	53145	3119	1.02	10.47%
Sadar Sub-Div.	2424.23	1238810	507	23.85	
Medinipur (M)	14.78	149769	10133	2.88	29.57%
KharagpurSub Div.	2729.01	2033584	698	39.16	
Kharagpur(M)	90.65	188761	2082	3.63	37.27%
Ghatal Sub. Div.	915.13	912987	958	17.58	
Chandrakona-(M)	16.58	20398	1230	0.39	4.00%
Khirpai(M)	11.65	14548	1249	0.28	2.87%
Ramjibanpur(M)	10.36	17364	1676	0.33	3.39%
Kharar (M)	10.36	11580	1118	0.22	2.26%
Ghatal(M)	10.36	51582	4979	0.99	10.16%
District Total 2001	9295.28	5193411	531	100.00	
Total Urban Population as	s Per cent of D	istrict Populatio	n	9.74	100.00%

Source: Census of India 2001

Table 8.3 shows the percentage of male population during the year 1991 and 2001 in the different municipalities and 'Census Towns' in Paschim Medinipur. While most of the urban areas showed improvement of sex ratio in 2001 from 1991 levels, percentage of male population in Chandrakona and Kharar municipalities increased during 1991-2001.

Table 8.3 Population distribution by sex in municipalities and 'Census Towns' in Paschim Medinipur District.

Municipality(M) / Census Town	% male population	% male population	Percentage
	1991	2001	Change
Jhargram (M)	52.37	51.06	-2.5
Medinipur (M)	52.06	51.08	-1.88
Debra	51.63	49.99	-3.18
Kharagpur I	51.67	51.14	-1.03
Kharagpur(M)	52.66	51.77	-1.69
Chandrakona (M)	51.08	51.3	0.43
Khirpai(M)	51.58	51.13	-0.87
Ramjibanpur(M)	51.6	51.39	-0.41
Kharar (M)	50.82	50.9	0.16
Ghatal(M)	52.09	52.06	-0.06

Source: Census of India, 1991,2001

#### 8.2 Urban Workforce

Table 8.4 shows the change in the share of the urban 'main' and 'marginal' workers along with the share of non workers during the period 1991-2001. It is observed that only Medinipur and Kharagpur have shown an increase in the share of main workers with Chandrakona showing a steep fall of 13.36%. This increase is mainly in the household industry sector and other workers category, as observed in Table 8.5. This is generally observed in all urban areas, including those where there has been a decrease in the percentage of main workers. Though there has been a reduction in main work force in most of the urban areas, there is also a reduction in the percentage of non-workers, leading to increase in percentage of marginal work force (Table 8.4). Chandrakona as an exception has shown an increase in the percentage of non-workers by 1.37%. Table 8.5 shows that the percentage of cultivators has increased in all urban areas except Jhargram, Medinipur and Kharagpur. In terms of agricultural workforce all urban areas show an increase in percentage except Medinipur.

Table 8.4 Change in the share of urban workforce during 1991-2001.

Municipality	Percentage of main workers			Percentage of marginal workers			Percentage of non- workers		
	1991	2001	% change	1991	2001	% change	1991	2001	% change
Jhargram	31.14	30.06	-3.47	0.97	2.60	168.04	67.88	67.35	-0.78
Medinipur	28.27	29.46	4.21	0.44	2.62	495.45	71.29	67.92	-4.73
Kharagpur	23.75	25.16	5.94	0.32	2.96	825.00	75.93	71.88	-5.33
Chandrakona	31.06	26.91	-13.36	2.44	5.68	132.79	66.50	67.41	1.37
Khirpai	31.94	29.93	-6.29	1.43	4.63	223.78	66.63	65.45	-1.77
Ramjibanpur	31.44	30.90	-1.72	2.66	6.19	132.71	65.90	62.92	-4.52
Kharar	29.37	27.88	-5.07	1.07	5.72	434.58	69.57	66.40	-4.56
Ghatal	31.55	32.43	2.79	3.03	3.75	23.76	65.42	63.82	-2.45

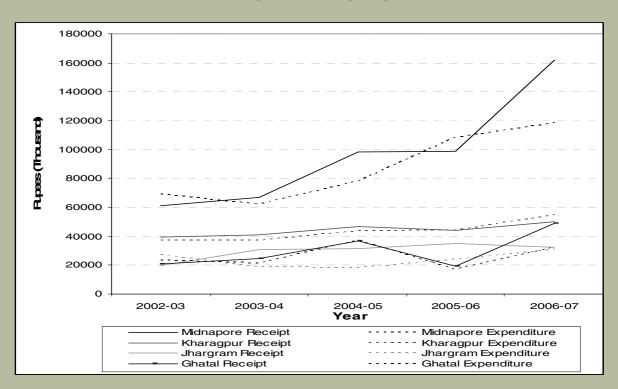
Table 8.5 Change in the share of workers employed in different sectors during 1991-2001

	Percentage of			Percentage of		Percentage of household			Percentage of other			
Municipality		cultivators		agricultural workers		industry workers			workers			
			%			%			%			%
	1991	2001	change	1991	2001	change	1991	2001	change	1991	2001	change
Jhargram	0.96	0.93	-3.12	1.35	2.69	99.26	0.56	3.05	444.64	28.27	93.33	230.14
Medinipur	0.45	0.33	-26.67	0.92	0.65	-29.35	0.48	2.86	495.83	26.42	96.16	263.97
Kharagpur	0.58	0.53	-8.62	0.77	1.25	62.34	0.14	1.57	1021.43	22.27	96.65	333.99
Chandrakona	4.62	8.74	89.18	9.27	22.69	144.77	0.9	2.92	224.44	16.26	65.65	303.75
Khirpai	6.80	15.54	128.53	12.67	34.95	175.85	0.70	3.62	417.14	11.77	45.89	289.89
Ramjibanpur	9.14	19.60	114.44	9.52	31.31	228.89	2.03	10.36	410.34	10.76	38.73	259.94
Kharar	5.10	8.87	73.92	7.10	21.69	205.49	0.75	3.98	430.67	16.42	65.46	298.66
Ghatal	6.57	11.59	76.41	3.75	8.98	139.47	0.93	4.87	423.66	20.30	74.56	267.29

# 8.3 Receipt and expenditure in Municipalities

Figures 8.1 and 8.2 shows the receipt and expenditure in thousands of rupees for the eight municipalities in the Paschim Medinipur district during the period from 2002-03 to 2006-07. During this period, receipts of the Midnapore municipality increased from 6.1 crore rupees to 16.2 crore rupees (Figure 8.1). While both, Midnapore and Ghatal municipality showed about 2.5 times increase of their receipt amount during the period 2002-03 to 2006-07, Kharagpur and Jhargram municipality has shown relatively moderate increase in both their receipt and expenditure during the same period.

Figure 8.1 Receipt and expenditure for Midnapore, Kharagpur, Jhargram and Ghatal Municipalities during the period 2002-07



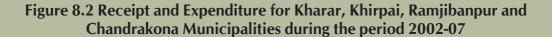


Figure 8.2 shows significant variation in the receipt amount for Chandrakona municipality during the period 2002-03 to 2006-07. In case of Ramjibanpur municipality, Figure 8.2 shows significant variation between receipt and expenditure with expenditure consistently falling far below receipt during 2005-06 and 2006-07.

# 8.4 Urban services and infrastructure

The following section explains the status of urban services and infrastructure in the eight municipalities in the Paschim Medinipur district along with future proposals and schemes related to roads and transport infrastructure, lighting, drainage and water supply & sanitation.

# 8.4.1 Roads and Transport

Table 8.6 shows the length of metalled and un-metalled roads in Kms. maintained by the different municipalities in Paschim Medinipur district. Out of all the municipalities, Medinipur has the maximum amount of metalled roads and Kharagpur has the maximum amount of roads considering both metalled and un-metalled surfaces. In Jhargram municipality, a scheme is in place to convert 58 kms. of un-metalled roads to concrete roads within the present 5 year planning period (2007-12). In addition, an over-bridge and a new 2.5 km road have also been taken up by the municipality. Ramjibanpur municipality also

envisages converting existing 'morrum' roads to 'black top' roads within the present 5 year planning period. Khirpai municipality also has proposals for construction of 'black top' and 'concrete' road of 15 km. and 5 km. length respectively in addition to improvement and repair of 10 km. of existing 'morrum' roads.

Table 8.6 Roads maintained by municipalities in Paschim Medinipur district

(in Km.)

Municipality	Black top	Concrete	Brick	Unmetalled Morrum	Kutccha	Tota Un-metalled
Medinipur	181	275				90
Kharagpur	60	200	30	180	97	307
Jhargram	52			75	45	120
Ghatal	3	6	1	36	96	133
Kharar	5.2	2.5	0.3	49.5	3	52.8
Khirpai	11	1.5	1.6	28	5	34.6
Ramjibanpur	5	3.5		1 <i>7</i> .5	6	23.5
Chandrakona	20			142	12	154

Source: District Annual Plan 2009-10

# 8.4.2 Lighting

Table 8.7 shows the number of different types of street lights maintained by the different municipalities in Paschim Medinipur district.

Table 8.7 Street lights maintained by municipalities in Paschim Medinipur district

(in Number)

Municipality	Ordinary Bulbs	Tube lights	Halogen	Total street lights
Midnapore	2908	720	1043	4671
Kharagpur	4340	138	1266	5744
Jhargram	100	1200	55	1355
Ghatal	1100	350	35	1485
Kharar	287	501	18	305
Khirpai	550	212	15	565
Ramjibanpur	300	325	50	350
Chandrakona	899	1200	20	919

Source: District Annual Plan 2009-10

# 8.4.3 Drainage and sanitation

Table 8.8 shows the total length of 'Pucca' and 'Kutcha' drains along with the total number of public toilets and number of households without sanitary latrine in the different municipalities in Paschim Medinipur district.

**Table 8.8 Drainage and sanitation by municipalities in Paschim Medinipur district** 

	Drainas	ge (km.)	Sanitation (number)		
Municipality	Pucca	Kutcha	No. of Public toilets	Households without sanitary latrine	
Midnapore	168	358	-	-	
Kharagpur	85	120	6	473	
Jhargram	5	-	-	2479	
Ghatal	31	18	25	3000	
Kharar	5	45	0	547	
Khirpai	2.5	5.5	2	550	
Ramjibanpur	3	45	8	850	
Chandrakona	3	320	6	1100	

Source: District Annual Plan 2009-10

In Medinipur municipality the major drainage system consists of the Dwaribandh Khal, the Cossey River and some agricultural land. The existing 'pucca' and 'kutcha' drains cater to both sewerage and storm water. However, in Kharagpur municipality in addition to the drains, sewerage system is also present for 30 kms and has been proposed to be increased to 135 kms. In Jhargram municipality due to lack of public toilets, the municipality has planned to construct 8 Community Toilets and 4 Pay & Use Toilets. In Ghatal municipality complete drainage system of the town along with a master plan for flood protection is being proposed to be taken up to prevent regular flooding every year. In Chandrakona municipality, the municipality has applied for funding construction of 309 Pour Flush Latrines. Khirpai municipality also has proposals for converting all drains to 'pucca' structure along with improvement of dumping ground for solid waste. Finally, Kharar municipality envisages setting up two new deep tube-wells for irrigation purposes along with extension of 'pucca' drains by 40 km.

# 8.4.4 Water Supply

Table 8.9 shows the different types of water supply systems present in the different municipalities in the Paschim Medinipur district. In Medinipur municipality, the distribution system for piped water supply is divided into five separate zones covering about 90% of the town area. Supplementary drinking water is supplied through hand pump wells. Local institutions like hospitals, housing complexes, railways etc. have their own supply systems. In Kharagpur municipality, the present demand for water supply is going to increase during the coming years due to proposed industrial growth in the area as well as new housing demand. The quality of water available is also hard due to dissolved solids and this causes damages to the crops and the piping system. In Ramjibanpur municipality, installation of a new tube well and extension of the existing pipelines has been taken up. Similarly, Khirpai and Kharar municipality has plans to extend their piped water supply systems and installation of deep tube wells the reason being the existing tube wells getting defunct due to gradual lowering of the water table.

Table 8.9 Water supply systems in municipalities in Paschim Medinipur district

Municipality	Over Head Reservoirs	Deep Tube well	Hand Tube well	Piped surface water supply
Medinipur	6 nos.	23 nos.	3 nos.	
Kharagpur	NA	14 nos.	200 nos.	172 km.
Jhargram	2 nos.	NA	NA	70 km.
Ghatal	NA	8 nos.	595 nos.	46 km.
Kharar	NA	NA	1200 gallons	75000 gallons
Khirpai	NA	NA	1200 gallons	100000 gallons
Ramjibanpur	3 nos.	3600 liters	NA	454000 liters
Chandrakona	NA	4 nos.	36 nos.	42 km.

NA: Not available

Source: District Annual Plan, 2009-10

# 8.5 Industrial status and employment generation in the district

The location of the Paschim Medinipur district is very favorable for establishing large and medium scale industries. Both Midnapore & Kharagpur Sub-division are well connected to the different parts of the country by the South Eastern Railway, N.H. 6 and N.H. 60. The district's close proximity to the mineral rich areas of Jharkhand and Orissa, availability of skilled labour at comparatively low rates, abundance of power and business environment are conducive for industrial growth. Table 8.10 lists the total number of factories grouped by their type along with the total number of employees, invested capital, etc. for the period 2004-05 for the Paschim Medinipur district. MKDA is also playing a key role for the development of industries in the district. Investors and Industrial Houses are also showing their interest in establishing large industries.

Table 8.10 Factories by industry type in Paschim Medinipur District, 2004-05

Industry type	No. off factories	No. of Employees	Invested capital (Rs. in lakh)	Net income (Rs. in lakh)	Average employment per factory
Manufacture of food products & beverages	53	1651	6253	719	31
Manufacture of tobacco products	6	14	2	2	2
Manufacture of paper and paper products	4	525	1560	-5	131
Manufacture of chemicals and chemical products	7	175	379	-30	25
Manufacture of other non- metallic mineral products	8	1012	12554	14937	127
Manufacture of basic metals	7	974	26475	11349	139

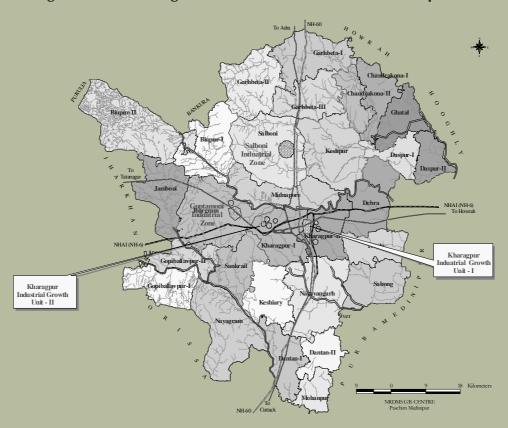
Industry type	No. off factories	No. of Employees	Invested capital (Rs. in lakh)	Net income (Rs. in lakh)	Average employment per factory
Manufacture of machinery and equipment	3	1082	10781	5783	361
Supporting and auxiliary transport activities etc	40	2524	3987	1810	63
Others **	9	1077	6647	605	120
Total:	137	9034	68638	35170	

Note: \*\* includes Manufacture of textiles, coke, refined petroleum products and nuclear fuel, rubber and plastics, fabricated metal products except for machinery and equipment, electrical machinery and apparatus, other transport equipment, sale, maintenance & repair of motor vehicles & motor cycles; retail sale of automotive fuel

Source: Statistical Hand Book, Paschim Medinipur, Government of West Bengal

There are several large and medium industries in Kharagpur belt in the area of Metallurgical, Engineering, Cement, Asbestos and Chemicals. There is also one Industrial Estate with all necessary infrastructures including railway siding and airport facilities at Nimpura, Kharagpur under WBSIDC and WBIIDC. There are also concentration of industries at Gopali and Gokulpur. Another area coming up is the Rupnarayanpur - Jakpur area. Other prospective areas for industrial use are at Guptamani, Mankpara, Jhargram and Sankrail. Salboni is also an area of great potential for industries where JSW Bengal Steel has decided to set up Integrated Steel Plant and Power Plant.

Map 8.1 Existing Medium and Large Scale Industries in Paschim Medinipur District



A host of engineering industries have already come up in and around Kharagpur such as TATA Bearings, TATA Metaliks, Flender & Mclean Gears, Humbolt Wedag, Immeco, Jaffa, Ramco industries, ASO cement, Telecom Factory, etc. Tata Metaliks and Telcon Ltd. are acquiring lands for setting up integrated steel plant and heavy earthmovers, etc. in addition to the existing set up of TATA Metaliks. M/S. Ramswarup Lohh Udyog Ltd. has acquired land at Kharagpur to set up integrated steel plant. Table 8.11 lists the fifty biggest factories in terms of the number of people employed in the Paschim Medinipur district and Table 8.12 lists the new industries under construction along with their location and item of manufacture. In addition to the traditional industries like Steel and Iron, Textiles, Chemical and Engineering, there is also ample scope in the emerging sectors like fruit processing, floriculture, Advanced Engineering, Bio-Technology, Computer software, Filament yean, etc. Indian Institute of Technology, Kharagpur, a premier science and technology institution is also located in the district which regularly provides consultancy to the industries along with help to the entrepreneurs.

Table 8.11 List of the big Industries above 50 employees

SI.	Name of The Factory	No. of total Employees
1	Loco Shops S E Railway Workshop	3983
2	Carriage Shops South Eastern Rly. Workshops	2189
3	Wagon Repair Shops South Eastern Rly. Workshops	1700
4	Tata Iron & Steel Co. Ltd.	730
5	Tata Metaliks Ltd.	675
6	Electrical Carriage Lighting Shop No.51	612
7	Electrical Shops, 50, 52, 53, 54, S.E.Rly.	513
8	Bharatiya Note Mudran	477
9	Midnapore Cotton Mill	410
10	Kanoi Agro-Tech Ltd.	400
11	Century Extrustion Ltd, Plot-7a, Sector-B, Wbiidc Igc	398
12	Universal Paper Mills Ltd.	356
13	Ual-Bengal (Prop. Utkal Asbestos)	340
14	Signal Workshop South Eastern Rly.	319
15	South Eastern Railway Printing Press	299
16	Biswanath Cashew Co	273
17	Telecom Factory, Nimpura Industrial Growth Centre	250
18	Flender Macneill Gears Ltd.	240
19	Bhagwati Foods (P) Ltd.	189
20	Brahmanand Himghar Ltd.	164
21	Raj Cold Storage, A Unit Of Steeel City, Procession Technology Pvt. Ltd.	164
22	Visaka Industries Ltd.	150

# Urbanization and Industrialization

SI. No.	Name of The Factory	No. of total Employees
23	Rashmi Cement Ltd.	148
24	Monglapota Cold Storage Industries Pvt. Ltd.	140
25	Harimati Rice Mill	129
26	Ramco Industries Ltd.	125
27	Line Engineering Workshop	124
28	Wellman Incandescent India Ltd.	120
29	Davyasmore India	101
30	Maha Laxmi Cold Storage Pvt. Ltd.	100
31	Mondol Cold Storage	99
32	Uma Iron & Steel Co	96
33	Jay Mahaprovu Cold Storage (P) Ltd.	90
34	Purnima Cold Storage Prop. Bindu Food Processors (P) Ltd.	90
35	Chowdhury Cold Storage (P) Ltd.	90
36	Ganga Rice Mill.	86
37	Swambhunath Cold Storage (P) Ltd.	81
38	Mahakali Rice Mill	80
39	Neelachal Natural Resource Pvt. Ltd.	77
40	Asapcs (India) Pvt. Ltd.	<i>7</i> 5
41	Unsavo Paper Mills Pvt. Ltd.	73
42	Bhagwati Cold Storage	72
43	Baba Bhutnath Cold Storage Pvt. Ltd.	70
44	Kanchan Oil Industries	68
45	Associated Pigmonts Ltd.	65
46	Bajaj Fabrics Pvt. Ltd.	64
47	Ma Moni Cold Storage Pvt. Ltd.	60
48	Jagatmata Cold Storage (P) Ltd.	60
49	Harihar Rice Mill	59
50	Aryavarta Trading (P)	5 <i>7</i>

Garhbeta-II

Chandrakona-II

C

Map 8.2 Existing Medium and Large Scale Industries in Paschim Medinipur District

**Table 8.12 New industries under construction** 

Name of industry	Location	Item Of Manufacture
JSW Bengal Steel Project	Godapiasal, Salboni,	Integrated Steel And Captive Power Plant
Telco Construction Equipment Company Ltd (Telcom)	Rupnarayanpur, Kharagpur	Heavy Earth Movers And Ancillary Manufacturing Unit
Sai Fertilizers	Kalaikunda	Chemical
Tractor India Ltd (Til)	Changual, Kharagpur	Manufacturing Of Port Equipments, Coal Handling Equipments, Mining Equipments.
Bengal Energy Ltd	Rampura And Ors, Narayangarh And Kharagpur-II	Coke Oven Plant And Steel Plant

Source: District Annual Plan, 2009-10

The district also have an extensive area under forestry which could be used for development of paper and pulp industry and other industries based on forest produces like sal leaf plate, babui rope, oil from neem, mahua etc. Along with rice, potato, cashew nut, mustard, betel leaves, flowers, fruits are some of the important agricultural produce which could be processed for value addition. SSI industries are also growing in Kharagpur, Medinipur and Jhargram area in the field of Engineering, Automobile Servicing, Chemicals, Rice mill, Edible oil refining, packed Atta, Bakery, noodles etc. An industrial Growth Centre has been developed recently at Khasjungle near Midnapore town. Table 8.13 lists the total number of Small Scale Industrial (SSI) units and the total number of employment in these units along with the percentage change in their number during the period 2002-2006 for the Medinipur district. However, total number of registered SSI (PMT) units and their employment in Paschim Medinipur district was established as 7672 and 41240 respectively.

(Source: http://paschimmedinipur.gov.in/profiles/district\_prof.htm, Accessed 1st December, 2008)

Year	No. of Units	% change	No. of Employment	% change
2002	31288	-	154249	-
2003	32668	4.41	161382	4.62
2004	34181	4.63	170528	5.67
2005	35652	4.3	178137	4.46
2006	37440	5.02	187843	5.45

Table 8.13 Number of SSI units and their employment in Medinipur District.

Currently, agro-processing units and other manufacturing units are being promoted and developed in the district. To cope with the market demands, there is need for development of entrepreneurship, skills and better utilization of existing natural resources.

# **Khasjungle Industrial Growth Centre**

"Khasjungle Industrial Growth Centre" is located 3 km. away from Medinipur town. The objective for starting this SSI industrial centre was to encourage the educated unemployed youth of the locality for setting small industrial and allied units for self employment and subsequent further employment generation. Total area is 13.59 acres [ Cluster - I : 8.54 acres & Cluster - II : 5.05 acres ] in Khasjungal mouza, Siromoni Gram Panchayat under Medinipur Sadar Block, J.L. No.- 167, Plot No. - 70. Total 52 sub-plots measuring. 10 decm. to 20 decm. for setting production units. Land provided to 51 entrepreneurs and at present 22 SSI units are in operation with employment opportunities of about 800 persons for production and marketing purposes.

The units of food processing and other SSI units like Packed Atta, Chou, Noodles, Snack & Chanachur manufacturing, Fiber glass, Electrode, Cycle spare parts, Tyre Retreading, Coke Briquette, Polythene pipe, Nail, Chilling plant, Glass silvering, wire nail, Mosquito net, Logence, Bearing, Automobile Servicing etc are running. Other units like polythene pipe, polythene sheet, automobile servicing etc. are also coming up.

Sericulture is an important source of income for many small and marginal farmers in the district. This industry has provided an earning source for the rural people through activities like mulberry cultivation,

silk-worm rearing, cocoon production, silk reeling and weaving. Tasar is mainly cultivated by the tribal people. Presently, more attention is given for increasing the area under tasar host plantation like Arjun and Asan by utilizing the degraded forest land and through supply of good quality seeds. Table 8.14 shows the Mulberry and Tasar production and earnings for Paschim Medinipur district along with their % change during the period 2002-2006.

Table 8.14 Mulberry and Tasar production and earnings for Paschim Medinipur district

	Cocoons production				Value of production (thousand rupees)			
Year	Mulberry	Mulberry	Tasar	Tasar	Mulberry	Mulberry	Tasar	Tasar
	(Qntls)	(%	(000)	(%		(%		(%
		change)	Kahans)	change)		change)		change)
2002-03	2928	-	4546	-	14640	-	3637	-
2003-04	895	-69.43	3021	-33.55	5370	-63.32	2417	-33.54
2004-05	824	-7.93	4742	56.97	5358	-0.22	3794	56.97
2005-06	761.23	-7.62	51 <i>7</i> 4	9.11	6089.8	13.66	4656.6	22.74

Source: Deputy Director, Sericulture, Paschim Medinipur

At present, area under Mulberry and Tasar cultivation are 1033.73 acres and 1826.83 acres respectively with 1853 farmers engaged in mulberry production and 2249 farmers engaged in 'Tasar' cultivation. Total Mulberry cocoon production was 36.77 metric tons and silk production .33 metric tons, whereas Tasar production in kahans was 4542 and silk production .484 metric ton.

(Source: http://paschimmedinipur.gov.in/profiles/district\_prof.htm, Accessed 1st December, 2008)

Handloom also plays an important role in the industry sector. The weavers are mainly concentrated in the blocks like Pingla, Sabang, Narayangah, Dantan-II, Keshpur, Garhbeta-II, Ghatal and Ramjibanpur Municipality. Total number of handlooms were estimated to be 10120 which included 117 handloom cooperatives, 8059 looms under co-operatives and 623 S.C. weavers' co-operative.

(Source: http://paschimmedinipur.gov.in/profiles/district\_prof.htm, Accessed 1st December, 2008)

The skill development training for weavers on handloom with jacquard facilities and dyeing and assistance to run the units in the different blocks have achieved good results.

# 8.6 Industrial potentials in the district

The district has immense potential for industrialization. It has a number of natural advantages for industrial and allied development. It is very close to the mineral rich areas of Jharkhand and Orissa. It has an excellent transport and communication network of National Highways and railways and an existing industrial base. Medinipur and Kharagpur are both nearly 130 kms from Kolkata and 140 kms from Jamshedpur. Haldia port is at a distance of 110 kms and Netaji Subhas International Air Port at a distance of 160 kms. River Subarnarekha flowing at a distance of 25 kms towards south and river Kansabati are perennial water sources for the district. Nearest border of Jharkhand and Orissa state are about 35 to 40 kms away towards west along the NH6. At a short distance towards the west, Jhargram area has a vast track of lands, which are barren and unsuitable for cultivation, and has very little habitation. Some of the industries in this area are Universal Paper Mills, Reshmi Cement, Utkal Asbestos, Uni-Tech. Paper Mills Kanoi Agro-Tech. Industries etc. Table 8.15 shows some of the proposed industries in the Paschim Medinipur district along with their location and item of manufacture.

**Table 8.15 Proposed industries in Paschim Medinipur district** 

Name of company	Location	Item Of Manufacture	
Bio Tech Park	Rupnarayanpur, Kharagpur	Joint Venture Project (Govt. of W.Bengal and IIT, Kgp)	
Shyam Steel	Dewanmaro Ayma And Ors, Kharagpur	Integrated Steel Project	
Emami Ltd	Junglekurchi and ors, Sankril	Wood Based Paper Mill	
Orissa Cement (Ocl)	Godapiasal, Salboni	Cement Manufacturing	
Bengal Integrated Auto Industrial Park	Guptabani , Jhargram.(WBIIDC & SREI)	Auto Industrial Park	
Korp (Onkar Ispat)	Khemasuli- Kharagpur/ Guptabani-Jhargram	Integrated Steel Plant And Power Plant	
Tata Metaliks Extension Project	Mathurakismat and ors At Sahachak, Kharagpur	Steel Project	

Source: MKDA Plan, 2009-10

Some of the West Bengal Industrial Development Corporation (WBIDC) sponsored projects in the district and particularly within the MKDA planning area is listed below.

# Industrial Estate at Kharagpur near Saha Chak (1800 acres):

Ramswarup Lohh Udyog, TATA Metaliks, Kali Mati Iron Industries, Choudhury Udyog Steel, Rashmi Ispat Ltd., Wellman Carbo Metaliks, etc. have been allotted lands for setting up factories within this proposed area.

### Industrial Estate at Kharagpur near NH-6 and NH-60 crossings (1400 acres):

TELCON Ltd. will set up a heavy earth mover manufacturing unit and ancillary manufacturing units for spare parts within this proposed area. Other projects include a Bio-Technology Park, which is a joint sector project of WBIDC Ltd. and IIT, Kharagpur and a modern mini township project by WBIDC to sustain Industrial and allied activities in and around Kharagpur will also be set up in this area. Reliance Ltd. is also likely to set up an Agro-based wholesale market complex within this area.

### Mini Township in the fringes of Kharagpur (200-250 acres):

This project is conceived considering ancillary requirements to sustain the new industrial activities and projects which are coming in and around Kharagpur.

### SEZ Project at Guptabani, Jhargram(2500 acres):

The location of this project is about 25 km away from the Industrial Estate of Kharagpur towards west along the NH-6.

# Mega Industrial Project at Salboni(5500 acres):

Barren land, except the social plantation near Godapiasal Rly. Stn. has been identified by the JSW Steel Ltd. (Jindal Group) for setting up an integrated steel and power plant.

# 8.7 Midnapore - Kharagpur Development Authority (MKDA).

The following section lists some of the ongoing and proposed projects for the Midnapore - Kharagpur Development Authority

Garhbeta-II

Garhbeta-II

Chandiskona-II

Chan

Map 8.3 Existing and Proposed Industries in Paschim Medinipur

# **On going Projects:**

- i) Development of link road from Saha Chak to Tata Metalinks (4.5 km.)
- ii) Extension of road from TATA METALIKS to Kansaboti Railway Bridge. (1.8 km.)
- iii) Construction of community latrine for SC & ST habituated and slum are of Medinipur and Kharagpur Town.
- iv) Widening and strengthening of Duk Bunglow road from Gate Bazar to Kansaboti river.
- v) Construction of connecting road from Kankaboti to Kansaboti river (2.5 km.)

# **Projects to be undertaken immediately:**

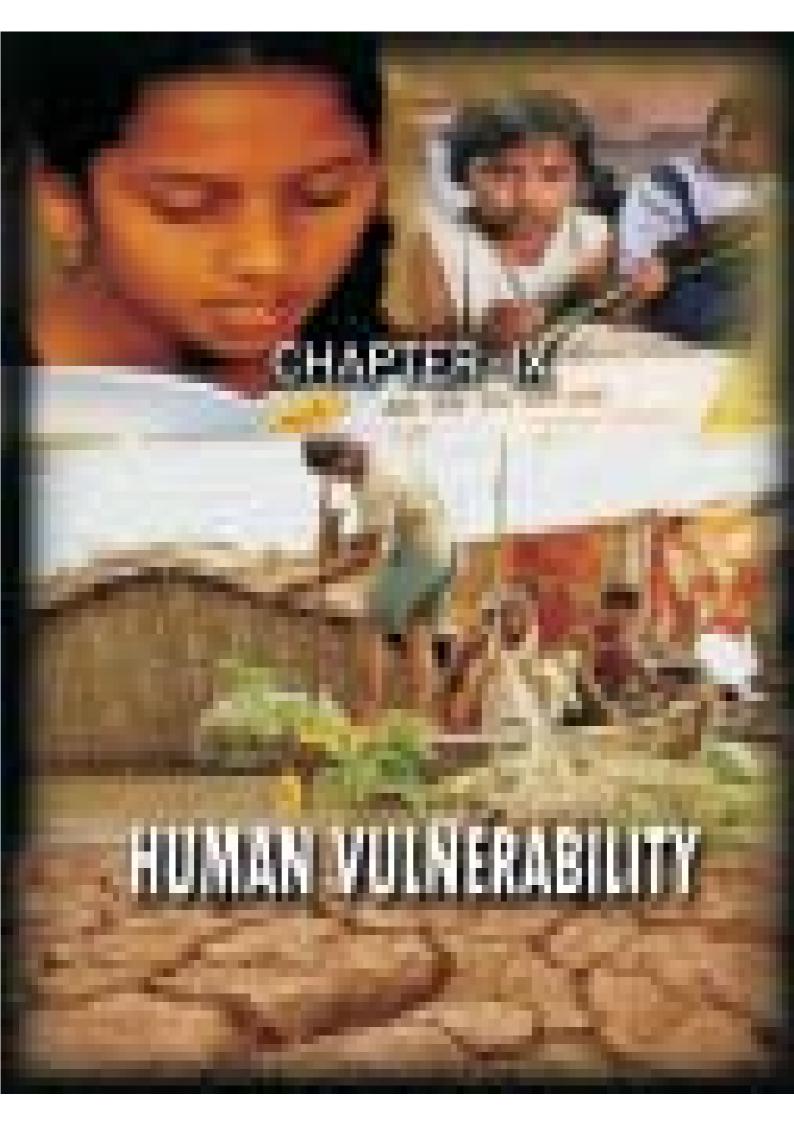
- i) Construction of Diesel/ Gas operated crematorium near sadar Ghat, Medinipur.
- ii) Truck Terminus at Saha Chak.
- iii) Construction of connecting road from Tora Para, Medinipur to NH-60 (3.5 km.).

# Urbanization and Industrialization

- iv) Construction of housing project at Medinipur.
- v) Construction of Multi Shopping and commercial complex at Kharagpur.
- vi) Beautification of the Kansaboti river front area (partly). From Rly. Bridge to the Link Road.

# **Future Projects within 5 years:**

- i) Sanitation and drainage system of Medinipur and Kharagpur Town.
- ii) Development of City Centre at Kharagpur and Medinipur Town.
- iii) Construction of Central Bus Stand at Kuikota, Medinipur.
- iv) Construction of Bridge over Kansaboti river for connection of the link road with NH-6 at Saha chak from Duk Bunglow road, Medinipur.
- v) Integrated Water supply project to cater the industrial and human requirements around Medinipur and Kharagpur.
- vi) Solid waster management project.
- vii) Widening and strengthening of the road from Medinipur to Mandirmoy Pathra.
- viii) Construction of Multimodel transportation systems and roads networks including.
- ix) Construction of composite Institutional hub at Midnapore/ Kharagpur (Engineering college, Health city, Commercial complex, etc.)
- x) Eco-tourism part at Karnagarh.



# Human Vulnerability

# Chapter -IX Human Vulnerability

The poor rarely speak of income, but focus instead on managing assets—physical, human, social and environmental—as a way to cope with their vulnerability.

The poor live at the whim and mercy of nature

- Narayan and others, 2000

# 9.1. Introduction:

Humanbeings are more vulnerable in many ways than any other beings in existence. We have no shell, scales, stinging, stunning, strangling, poison, or any other physical protective features as animals do. We have no natural lethal ability. The only way we the humanbeings have to protect ourselves is by our constructive and strategic capabilities. However, these far exceed any other abilities that exist.

Our vulnerability has quite a simple three-fold explanation. Generally, nature gives evidence that vulnerability equals complexity. A turtle has a shell but no ability to build a home and, therefore, cannot build a cathedral, stadium, or space station either. A road runner can run fast and maneuver around objects very quickly, but it does not have the capability to design wheels and ball bearings or to travel thousands of miles in a relatively short period of time. Birds have wings to fly very high and fast, but they are not capable of soaring at jet speed or rocketing out of earth's atmosphere and orbit to reach another celestial body. Many animals have capabilities of natural resistance to sickness and disease far beyond human capabilities. Although, animals do not have capabilities to develop healing compounds, surgical procedures, or developmental and re-creative procedures used to not only correct physical problems but also enhance physical abilities beyond our natural means.

So, the ultimate source has intended for humanity to succeed far beyond all other capabilities in the universe. How are we suppose to exceed beyond suffering, mental inadequacy, disabilities, the poor and hunger ridden, and all of the limits and hurdles in ways of escalating beyond our current state of existence? Isn't there even any way to avoid growing old, decrepit, and dying?

Those things, which exist within this life, such as sickness, disease, the poor and hunger-ridden, suffering, inadequacy, and seclusion within our limits, are all surplussables. There is no reason, other than greed and selfishness that restricts humanity from correcting these things. It is within collective human means to produce the antidotes of these issues. People's choices to embrace selfishness and greed are the culprits of human degradation and every person will answer to eternity for it. With this in mind, it is a good idea and self-realizing to vocalize requests for forgiveness of our rejections of Uni-diversal purposes often. But realize that if people were not created to be capable of correcting all current human deficiencies, then we would not be capable of escalating far beyond all of these things either. Every Uni-diversal Faith gravitates towards higher levels of existence and we must learn to realize that they are ours to have as we learn to overcome our selfishness and greed.

So then, what's the deal about aging, decrepitating and death? How could these things possibly promote any sort of higher cause? The basis of "discarding all selfishness and greed" exists, and the foundation that "all love, caring, and generosity is established", and the concept on which "all personal and social willingness and progress hangs" is the most difficult and unlikely to prove. For anyone who

does not recognize intangible existence, it is impossible to prove that they are capable of escalating beyond the tangible. For this reason, the Christian Bible states that it is easier for a camel to pass through the eye of a needle than for a rich person to enter into heaven.

9.2 **Vulnerability** is a function of people's exposure to risk. By risk, we understand events or trends that create a measure of instability which may have a negative impact on people's welfare. Vulnerable groups comprise people with common characteristics, who are likely to fall or remain below a certain welfare threshold in the near future. The risk is perceived by an individual or population of the referred groups in a very reluctant manner and this attitude makes them more vulnerable. Households and societies manage a diverse portfolio of assets: physical, human, social, intellectual, and natural. Although Paschim Medinipur benefits from and depends on extensive natural assets, they are at enormous risk. The reason is that natural assets such as forests, fisheries, and water tend to be common property goods for which markets cannot provide basic coordinating functions—revealing true values, balancing interests over time, and providing efficient outcomes. As a result natural assets are difficult to manage sustainably, leading to the loss of forests, degradation of soils, overexploitation of agriculture and deterioration of surface water and groundwater. Two functions of natural assets are especially crucial to the health and livelihoods of poor people of Paschim Medinipur—particularly in rural areas, where 90% of the region's people live. The first is a timely and even rainfall and the second is access to health and proper education. These two functions are interlinked and decide the fate of the rural folk.

# 9.3 Risks are two types in nature:

Natural hazards like draught, flood, crop failure soil erosion, etc.

Social hazards like displacement, health, terrorism and indebtedness.

# 9.4 Key points to HAZARD ANALYSIS

- Poverty in Paschim Medinipur is exacerbated by precarious livelihoods with the rural poor suffering the most.
- Paschim Medinipur has a higher disease burden than any other region, with 30% of the burden due to environment-related diseases such as malaria, diarrhea, and respiratory infections.
- Land degradation is a major source of household food insecurity, income risk and vulnerability.
- More than half of Paschim Medinipur's soils are lateritic and low in nutrients.
- It is highly susceptible to the effects of climate change like droughts, cyclones, floods.
- It has two distinct characters across the district. The eastern and southern part of district is fertile with higher agricultural yield. Flood and inundation of vast area of this part is regular phenomena. On the contrary, the western and northern part is lateritic with undulation of land. Agricultural production is highly dependent on monsoon which results in low yield and sometime crop failure. As irrigation facility is poor most of these parts is single crop.
  - Migration of rural work force is common in the western and northern part of this district which leads to poor index in terms of education, health and socio-economic parameters.
  - A large section of the population in the Ghatal, Daspur region migrate to Maharastra and Gujarat for earning livelihood. Contamination of HIV virus and other STDs are often observed.

- Human trafficking and related issues posses threat to social balance here.
- Nearly 80% of Paschim Medinipur's population is dependent on agricultural activities which are mostly dependent on downpour during mansoon.
- Insurgencies in the western part, adjoining the State of Jharkhand and Orissa have disrupted normal life.

# 9.5 Human Vulnerability due to Natural Hazards

Human vulnerability is defined as the lack of key assets, exposing societies to increased risk of poverty. The fewer assets a society has, the more vulnerable it is. Thus degradation of natural assets can exacerbate poverty and increase vulnerability. In rural Paschim Medinipur seasonal fluctuations in food and water supplies are one of the main causes of vulnerability. In addition, many poor people live in environmentally fragile areas such as lateritic or forest lands with low soil fertility. Lacking other options, growing numbers of poor people have also moved to places in search of livelihood. These fragile sites are increasingly caught in a downward spiral of poverty and resource degradation.

# 9.5.1 Crop Failure Leads to Food Insecurity:

"Agroclimatic conditions are highly correlated with poverty

Shocks to natural assets speed transitions into poverty Vulnerability occurs when people or societies lack key assets and are exposed to greater risk of poverty. Poor people tend to have not only low incomes, but also low and unstable natural resource bases. As a result poor people's livelihoods are more likely to be disrupted by prolonged drought, major crop failures, or devastating livestock diseases. Thus agroclimatic conditions and geographic factors, such as rainfall and soil type, are critical in determining vulnerability and poverty. Large differences in living standards between areas in the same district are correlated with unequal distributions of natural assets, differences in agro-climatic conditions, or differences in geographic conditions, such as remoteness from markets and transport routes. These findings are intuitive because households in remote areas, living on fragile lands, would be expected to have fewer opportunities and face greater risks and vulnerability than households in better-endowed areas. The findings are also consistent with the fact that poverty is more severe in rural than in urban Paschim Medinipur. Analytical underpinnings make it possible to develop a strategy for sustainable development based on sustaining natural assets and reducing human vulnerability. The following examples show the clear relationship between poverty and agro-climatic conditions in various Paschim Medinipur areas.

Income fluctuations are a significant cause of transitory and persistent poverty. In western part of Paschim Medinipur harvest failure—largely due to drought,—has been a major shock for most rural households. The rural poor tend to be more vulnerable because of their limited ability to substitute assets to mitigate shocks. Some farmers may understate crop production in an effort to secure food aid or other benefits. But it is more likely that most rural farmers are malnourished and suffer from illnesses, resulting in insufficient crop production and persistent food insecurity and poverty. The crop failure caused extensive income losses and so increased poverty. But the crop failure was not the only reason the income distribution changed: Other changes resulted from individual and household characteristics. Western Paschim Medinipur is facing a regional food security crisis due to adverse climate conditions. Erratic rainfall in the year 2009-10 slashed the agricultural production in the blocks like Binpur I, Binpur II, Jamboni, Nayagram and Jhargram. Thus significant shortfalls in agricultural production of Paschim Medinipur are affecting food security amoung rural households of the western part of the district.

# 9.6 History of natural disaster in undivided Medinipore / Paschim Medinipur since 1942

- 1. A devastating super cyclone & flood occurred in the year 1942 October, in the Contai Sub-Division. The number of persons died 6, 00,000 (approx.). After the said natural calamity the worst famine also broke out.
- 2. In the year 1967 August, Contai Sub-division had to face a severe flood due to heavy rain. A huge number of people were homeless. The Government and N.G.O had provided adequate supplies of food and shelter.
- 3. A devastating flood occurred in the year 1978 September. A huge number of persons and cattle died. A large number of persons had to stay in the flood relief shelter, many of them had to take shelter in big trees. Govt. NGO's and many Philanthropic organizations rushed and rescued the unfortunate flood victims.
- 4. A severe cyclone with a tornado-like effect hit 3 blocks of the district of Medinipur on 24.03.1998 at around 2.00 to 3.00 P.M. The number of people affected by that tornado was around 26400. The number of affected mouzas was 18 with the total area affected being 3854 hectares.

# **Blocks and Mouzas affected (within Paschim Medinipur):**

Block Mouza

Dantan-I : Baipatna, Sijua, Garberia, Haripura, Dobadiha, Pantunia, Chak Ismailpur & Sarta.

Mohanpur: Rampura, Rajnagar, Barruipara, Poraxia, Singarui and Nayagaon.

# Death / Injury due to cyclone: The total number of persons died was 29 while the total number of people injured stood at 804.

Name of the Block	No. of Deaths	No. of injured persons
Dantan-I	29	563
Mohanpur	Nil	241

All sorts of restorative measures and rehabilitation were taken by the Government.

- 5. The district had to face a drought in 1998 where crop damage had been more than fifty per cent.
- 6. The district had to face a flood in 1999. Total 56131 houses were damaged and 45 lakhs (approx.) popula tion was affected.

#### In Paschim Medinipur District (From 01.01.2002)

- a) The district had to face a severe drought in 2002 and it affected 24 blocks out of 29 blocks.
- b) The District had to face severe flood in the year 2005 in which more than 5 lakh people in 17 blocks were affected.
- In the year 2007 severe flood occurred in four successive rounds causing large scale devastation, damage of dwelling houses, standing crops and public properties. The death toll reached 97.
   Army and Air Force authority had to be deployed for rescue and relief of the marooned people.
   Out of 29 total blocks of this district, 25 blocks were affected in that flood.
- d) In the year 2008, due to sudden rainfall of more than 800 mm in a span of two days (16<sup>th</sup> and 17<sup>th</sup> June) and sudden release of water in all the rivers, district suffered the worst floods. 19 blocks were severely affected and important roads, bridges and culverts were washed away.

# 9.6.1 Identification of Flood Prone Areas

The topography of the district is such that eastern part of the district is affected more than the western part of the district. The lists of affected blocks and municipality and about their vulnerability are as follows:

Name of the sub-division	Vulnerable blocks / municipality	Partly affected blocks / municipality	Water logging blocks / municipality
Ghatal	1. Ghatal	1. Chandrakona-l	1. Chandrakona-II
	2. Daspur-l		
	3. Daspur-II		
	4. Chandrakona-l		
	5. Chandrakona-II		
Kharagpur	6. Sabong	2. Dantan-l	2. Kharagpur-l
	7. Pingla	3. Dantan-II	3. Kharagpur-II
	8. Narayangarh	4. Debra	4. Keshiary
		5. Mohanpur	5. Midnapur (M)
	9. Medinipur Sadar	6. Garhbeta-I	
Medinipur Sadar	10. Keshpur		
	11. Ghahbeta-I		
	12. Garhbeta-II		
	13. Garhbeta-III		
Jhargram		7. Gopiballavpur-l	
		8. Gopiballavpur-II	
		9. Nayagram	
		10. Binpur-l	
		11. Sankrail	
Municipality	14. Ghatal (M)	12. Kharar (M)	6. Khirpai (M)
		13. Ramjibanpur (M)	7. Chandrakona (M)
		14. Midnapore (M)	8. Ghatal (M)

# **Rivers of Paschim Medinipur District**

Name of	Originating	Flows in this	Tributaries	Catchments	How affects
river	from	district		area	
1. Subarnarekha	Chhotonagpur near Ranchi in Jharkhand	Through Gopiballavpur- I & II Sankrail, Keshiary, Dantan-I (Sonakania)	Dolong in Paschim. Medinipur.	At the Bhasraghat Barrage site - 17498 Sq. Km.	The flow of this river added with the discharge of water from the Chandil Reservoir causes flood, creates erosion problem and damages crops property and public utilities.

Name of river	Originating from	Flows in this district	Tributaries	Catchments area	How affects
2. Keleghai	Dudhkundi in Jhargram P.S.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		About 2145 Sq. Km.	Keshiary, Narayangarh etc. large areas are affected by this river.
3. Kangsabati	In Chhotonagpur about 48 Km. N/E of Purulia Town	Paschim Medinipur (via- Purulia, Bankura) and joints Keleghai at Dhewbhanga to form Haldi river.	River Kumari in Bankura Cossye from Kapastikri in Paschim Medinipur.	The catchments area of the river at Kangsabati Dam located on the Kumari & Kangsabati river at Mukutmanipur at Bankura.	The catchments area below the Dam, during heavy rainfall in Bankura & Paschim Medinipur become worsened when it is synchronized with release of water from the Kangsabati Dam.
4. Silabati	Chhotonagpur plateau of Jharkhand.	Paschim Medinipur (via Purulia & Bankura) through Garhbeta-I & II and Daspur-II Block.	Tamal, Parang, Kubai, Birai etc. and joints at Bandar with	Part of Garhbeta-I & II, Daspur-II & Keshpur Block.	The tributaries have been silted and excessive downpour causes flood in the catchment area and the situation deteriorates when discharge of water from Durgapur Barrage through Damodar & Mundeswari synchronized with the river Rupnarayan.

In fine, it is to state that the main cause of flood of this district is the silting of rivers and congestion of drainage system. Arrangements of proper drainage system and making the river side embankments wide, strong and of durable height may solve the problem to a greater extent. And we shall have to leave no stone unturned to prepare D.R.M.P. Action Plans to get rid of the situations.

## Causes of flood

## The main reasons for flood in the district are as follows.

1. A dam at the confluence of river Kangsabati and river Kumari at Ambikanagar in the district of Bankura was constructed for providing irrigation as well as insurance against drought and moderate floods in the area. Before construction of dam, there was free flow through the river and the river was capable to carry adequate floodwater. After construction of dam water carrying capacity of the river has been

reduced gradually due to siltation of the river bed and non-release of flushing dose from the dam time to time.

- 2. The downstream of the river gets silted up constantly due to tidal effect.
- 3. Besides, this lower part of the river has been jacketed by putting up and rising of ex-zamindary bundhs.
- 4. Due to the gentle longitudinal slope of the river bed it has lost drainage efficiency.
- 5. Construction of boro-bundhs across the river for Rabi and Boro irrigation are also causing siltation of the river-bed.
- 6. Other rivers of the district such as Keleghai, Subarnarekha, Silabati, Rupnarayan are also causing floods due to the same reasons [i.e. reasons 1 to 5].
- 7. The major cause of flood in Kangsabati basin is not the local rainfall, but the spill way discharge of water from Kangsabati Dam. If the release of water from Kangsabati Dam can be regulated in a proper way, intensity of flood can be reduced.

#### 9.6.2 Drought makes people more destitute

Drought has been described as a "creeping disaster" in the United Nations Publications. Thus, emphasizing that a situation of Drought Develop gradually given sufficient warning of its coverage extents and intensity unlike a flood, cyclone or earthquake which offers little or no time and little opportunity for immediate planning and preparedness.

One of the essential preparatory measures is to keep a close watch on the behaviors of Monsoon and to initiate advance action to remove or minimize the unfavourable impact of weather conditions.

## **Action Plan for Drought:**

A large portion of Paschim Medinipur District is a drought-prone area. This is due to undulating topography, laterite and porous soil having a little water holding capacity. Almost the western side of the district faces drought every year. The district had to face a severe drought in 2002 and it affected 24 blocks out of 29. As a result, cultivation of Aman paddy hampered tremendously and cattle lives were also affected. People of those 24 blocks suffered a lot due to prevailing drought situation. An action plan for combating the situation was prepared.

## **Objectives:**

- 1. Focus on employment generation;
- 2. Speed up the pace of development creating employment and productive assets which would trigger the overall development;
- 3. Provide income generation activities to the affected population through SHGs for creating productive assets in affected areas e.g. water tanks, desilting of drainage canals, etc.
- 4. To create at least 1.5 lakh additional mandays per month per 1 lakh population during next 4 months.

#### **Suggestive areas of intervention:**

- 1. Excavation / re-excavation of ponds and tanks for harvesting rain water;
- 2. Construction of field channels of RLI / DTW,
- 3. Construction of water harvesting structures and cross-bundhs on the rivulets / perennial water sources for cultivation of Rabi crops;

## Human Vulnerability

- 4. Development of waste lands;
- 5. Intensification of development activities in aforestation;
- 6. Repair / reconstruction of village roads;
- 7. Special wage employment programme for women/SC/ST population;
- 8. Regular monitoring of foodgrains supplies prioritization on availability of food grains for wage employment programmes;
- 9. Activating self-help groups for income generation.

# **Action points for the Block / Gram Panchayat:**

- 1. Changes in annual action plan already prepared under NREGS, if necessary, to combat the prevailing situation;
- 2. Utilize the cash component and foodgrains (rice) already available with them immediately in the affected areas;
- 3. Fill up the ponds with water by connecting this with canals in advance;
- 4. Pool the various schemes towards drought management in close coordination with all departments functioning at the district level;
- 5. Enhance the water harvesting structures;
- 6. Identify lands for eligible works;
- 7. Employment generation in suitable schemes in consultation with the Agriculture, I &W, Fishery, Forestry, Animal Resource and PW Department.
- 8. Activate SHGs for income generating activities;
- 9. Labour-intensive works should be given top priority;
- 10. Awareness generation among the people for water harvesting and water recharging / preventing moisture evaporation.

## Names of the drought prone blocks:

SI.	Sub-division	Block
1.	Midnapore	Midnapore
		Keshpur
		Salboni
		Garbeta-I
		Garbeta-II
		Garbeta-III
2.	Jhargram	Jhargram
		Jamboni
		Binpur-I
		Binpur-II
		Sankrail
		Gopiballavpur-l
		Gopiballavpur-II

SI.	Sub-division	Block
		Nayagram
3.	Kharagpur	Kharagpur-I
		Kharagpur-II
		Keshiary
		Narayangarh
4.	Ghatal	Chandrakona-II

#### 9.6.3 Soil erosion erodes people of their fortune

Many blocks like Binpur I, Binpur II, Jamboni, Nayagram and Jhargram in Paschim Medinipur are moderately or severely degraded. Land degradation is linked to poverty and population pressures, people's

Land degradation is accelerating, with dire
Consequences for food security

attitudes and values, weak land management, and drought—which result in overgrazing, unsustainable agricultural activities, overexploitation of land (such as trees used for fuel wood), and deforestation. About 50% of land degradation is caused by erosion of top soil, 24% by crop production, 14% by clearance of vegetation for agriculture, and 13% by overexploitation. Degradation has decreased land productivity, and caused losses of arable land. Degraded land produces less food, reduces the availability of biomass fuel, makes ecosystems

less resilient, and increases malnourishment and susceptibility to disease in local populations. Nearly 30% of Paschim Medinipur's live on fragile lands. Where land is abundant, rapid population growth does not lead to degradation because farmers shift their cultivation patterns, leaving cropped land fallow to replenish lost nutrients. But land is scarce in many areas, and rapid population growth without intensive cultivation results in degradation. Population pressures are also reducing arable land per capita. Poor farmers cannot undertake intensive agriculture requiring significant inputs or investments in soil improvements. Their only alternative is to mine soils until they become completely degraded. Poverty also makes rural people dependent on fuel wood for energy.

Rainwater harvesting has attracted considerable attention in recent years. A wide range of Techniques

Rainwater harvesting: to augment irrigation facilities — tanks, farm ponds, gully detentions—are used, with some systems based on updates of technologies where needed, public spending on rainwater harvesting can be justified by the fact that, in scattered settlements, such schemes are the only alternative for providing irrigation facilities to far flung areas. Macrocatchment systems concentrate water from large areas, storing it in small reservoirs for agriculture is an example of macro-catchments.

At the other extreme is micro-catchment, which follows the same principles as macro catchments. Contour bundhs are created on slopes to concentrate water where it is needed, often to improve shrubs and grasses for livestock. Satellite and other aerial photography and geographic information systems are increasingly used to help determine suitable sites for water harvesting. Once a site has been identified, field work assesses factors such as run-off to project the amount of water that can be expected. Rainwater harvesting generally does not involve "best practice." Instead of searching for the best technology, efforts should focus on finding technology that can be adapted to local conditions.

Across Paschim Medinipur, rainfall averages 1600 millimeters a year. It is an alarming fact that only 0.13% of the annual rainfall is stored in tanks, ponds, irrigation channels. Improving the status of

water harvesting is the greatest challenge to us. For this we need to focus on excavation of new ponds and water harvesting structures. Due to high population density in the district there is scarcity of land for excavation of new water bodies.

## 9.7 Human Vulnerability due to Social Hazards

Apart from risk due to natural calamities, every society has some of its chronic and intrinsic problem, such as, low level of education, health and nutritional characteristics, poor quality of house, less number of livestock, very limited access to money etc always are posing threat to human life of that society.

In rural and urban societies of Paschim Medinipur district, three such social factors are being observed grossly and mostly.

- a) Indebtedness that leads to poverty, starvation and even death sometimes.
- b) Internal displacement causing due to indebtedness, landlessness etc.
- c) Health related a hazard that is also making life more miserable.

There is an inter-linkage between all these three factors and these factors or internal dimensions of vulnerability coexist with natural factors or external dimensions such as food, draught or soil erosion etc. The linkage between these three factors has formed a conspicuous circle surrounding the common man totally.

Now, let us discuss, those three factors to identify the nature of this linkage so that it can be addressed with a proper manner which would have a people centered approach.

#### 9.7.1 Indebtedness

Very limited access to money is the major and most serious risk throughout the district especially towards the people of jungle mahal. Per capita income as well as purchasing power is very low. People are more willing to stay in their traditional occupations like, collection of Kendu leaves, making of rope from babui grass or traditional mode of cultivation. This practice pushes them towards continuous economic crisis. Furthermore, traditional ceremonies, local crop failure, also compel to borrow loan from moneylender with high rate of interest. Thus the poor household falls prey to continuous debt. Even local polities in their territories sometimes create a barrier to appropriate distribution of money and resources.

So, most of the time, it even becomes difficult to manage meager livelihood causing starvation and poverty. So, it is highly required to provide relief to the poor man from the vicious cycle of interest imposed by the money lenders. Microfinance of different sorts is the only remedy to the recurring problem of indebtedness.

#### 9.7.2 Internal displacement

Internal displacement is nothing but forced migration. It happens due to political conflict in an area and thus makes the people especially poor tribal dying alive. Most of the internally displaced people (IDP) live in animal like condition with very low per capita income. Many of them survive by begging, or collecting firewood, whereas most of the womenfolk sale country liqueur or do odd jobs to generate additional income. The recent situation in the district has pushed many lives under threat of such displacement and even has displaced. Displacement also occurs through trafficking. Children and women are being trafficked to the bordering states generally for domestic workers or sexual worker or child marriage. The social economic situation of the family adds to vulnerability while both boys and girls are victim of trafficking, girls become vulnerable more. Indebtedness is again major cause of such trafficking. Relatives even parents'

sale their children to overcome the huge load of debt or to avoid starvation. Sometimes, they are being trafficked by luring them. However, poverty, joblessness, acute shortage of money are the driving factor of such displacement or trafficking. Government is trying continuously to provide employment to the people at their own place through NREGA or to provide food through MMS at the schools.

## 9.7.3 Health related problem

Joblessness, landlessness, homelessness, marginalization, food insecurity, increased morbidity enhance the chance of vulnerability directly and indirectly by affecting the health of the people.

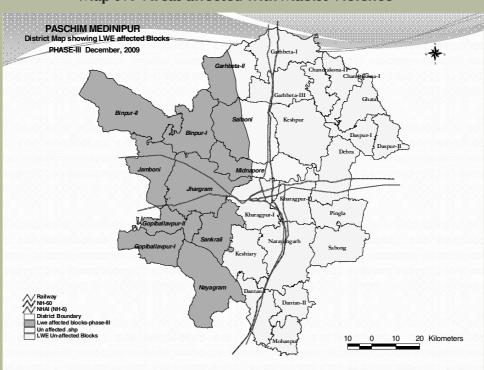
Malnutrition enhances the risk of prenatal or postnatal mortality.

The rate of death at the time of child birth is high especially in tribal areas. Lack of education and some social customs compel the society to experience female feticide or less acceptances of immunization programme or improper contraception method causing population burst.

Alcoholism is another social threat. It has always been an acute problem especially in the tribal community. Alcoholism leads to indebtedness or joblessness as well. People addicted to such practice usually posses the apathy for struggle in day to day life and to accumulate livelihood, they often depend or borrowing and thus fall into the trap of moneylenders. Such addiction diminishes the quality of life and makes life vulnerable.

#### 9.7.4 LWE Violence

Left Wing Extremism (LWE) in last few years has brought Medinipur in national radar. Other than Dantewada and Bijapur in Chattisgarh, Paschim Midinipur has seen one of the worst instances of LWE violence in the last couple of years, leaving more than five hundred dead and a similar number missing. Out of the 29 blocks of the district, 11 blocks in the western part of the district have remained in the grip of LWE violence.



Map 9.1 Areas affected with Maoist Violence

## Human Vulnerability

Due to continued Bandhs and Abrodhs (Blockade), the regular life of the common man and administrative functioning has been very badly affected. In the last one year, there has been more than 150 days of bandh calls by CPI(Maoist) and their frontal organizations. As a result, most of the energy of the administration is lost in maintenance of law and order and development works do suffer. As a result of continuous bandhs, economic opportunities have reduced in these areas, leading of high migration and extremely distressed life for the common man.

## **Loss of Human Life and Property**

Incident	Nov. 2008 – Oct. 2009 (12 months)	Nov. 2009 – Aug. 2010 (10 months)
No. of person killed	62	313 (including victims of Gyneswary Exp.)
No. of person injured	42	156
No. of trucks burnt	4	59
Destruction of private vehicles	2	52
No. of Govt. property destroyed	1	20

In our calculation of Human Vulnerability index, we have assigned a weightage to LWE violence. This value is one for the blocks fully affected by the maoist violence, 0.5 for the partially affected blocks and 0 for unaffected blocks.

# 9.8 Human Vulnerability Index

We have made an attempt in this section to prepare human vulnerability index based on seven indicators, namely (i) percentage of mal nutrition including moderate and severe (ii) percentage of immunization (iii) percentage of BPL (iv) percentage of female literacy (v) landless households, (vi) percentage of landless labourers, and (vii) percentage of households as having less than 1 meal a day. In calculating the Vulnerability Index (V I), we have attempted to follow the methodology suggested by UNDP as far as possible. Each of these indicators is defined as a dimension with value between 0 and 1 with reference to minimum and maximum value. The general formula for calculating each dimension index is:

$$Index = \frac{Actual\ Value - Minimum\ Value}{Maximum\ Value - Minimum\ Value}$$

The Vulnerability Index is then calculated as a simple average of the seven dimension values and it is presented in Table 9.1

Table 9.1 Some Vulnerability indicators and Indices in Blocks of Paschim Medinipur District

SI.	Block	Mal	Immuni-	BPL	Female	Land-	Land-	HH less	LWE	VI	Rank
No.		Nutrition	sation	Index	Literacy	less HH	less Lab.	one meal a	Vio-		
		Index	Index		Index	Index	Index	day Index	lence		
1	Chandrakona-I	0.441	0.362	0.488	0.339	0.168	0.433	0.24	0	0.31	25
2	Chandrakona-II	0.519	0.27	0.44	0.778	0.124	0.623	0.135	0	0.36	22
3	Daspur-I	0.531	0.43	0.052	0.206	0.163	0	0.099	0	0.19	28
4	Daspur-II	0	0.309	0	0	0.037	0.011	0.055	0	0.05	29
5	Ghatal	0.718	0.409	0.379	0.286	0.142	0.269	0.231	0	0.30	27
6	Binpur-I	0.719	0.371	0.555	0.797	0.229	0.971	0.499	1.0	0.64	4
7	Binpur-II	0.868	1.000	0.986	0.767	0.482	0.860	0.000	1.0	0.75	2
8	Gopiballavpur-I	0.619	0.271	0.453	0.940	0.096	0.960	0.306	0.5	0.52	9
9	Gopiballavpur-II	0.8	0.584	0.56	0.701	0.173	0.981	0.281	0.5	0.57	5
10	Jamboni	0.934	0.524	0.956	0.578	1	0.98	1	0.5	0.81	1
11	Jhargram	0.697	0.7	0.587	0.631	0.108	0.806	0.262	0.5	0.54	6
12	Nayagram	1	0.847	1	1	0.26	0.145	0.485	0.5	0.65	3
13	Sankrial	0.824	0.583	0.634	0.591	0.151	0.889	0.219	0	0.49	13
14	Dantan-I	0.781	0.587	0.582	0.565	0.443	0.594	0.511	0	0.51	10
15	Dantan-II	0.864	0	0.545	0.266	0.31	0.497	0.443	0	0.37	20
16	Debra	0.441	0.37	0.275	0.286	0.272	0.737	0.279	0	0.33	23
17	Keshiary	0.823	0.633	0.543	0.515	0.326	1	0.319	0	0.52	8
18	Kharagpur-I	0.499	0.432	0.781	0.532	0.737	0.039	0.432	0	0.43	14
19	Kharagpur-II	0.483	0.781	0.68	0.505	0.338	0.881	0.347	0	0.50	12
20	Mohanpur	0.683	0.189	0.61	0.223	0.392	0.315	0.542	0	0.37	18
21	Narayangarh	0.598	0.2	0.435	0.389	0.192	0.72	0.373	0	0.36	21
22	Pingla	0.672	0.205	0.617	0.076	0.315	0.358	0.379	0	0.33	24
23	Sabang	0.707	0.603	0.349	0.113	0.278	0.135	0.264	0	0.31	26
24	Garhbeta-I	0.735	0.634	0.339	0.588	0	0.542	0.098	0	0.37	19
25	Garhbeta-II	0.65	0.606	0.622	0.555	0.223	0.624	0.236	0.5	0.50	11
26	Garhbeta-III	0.416	0.936	0.238	0.555	0.156	0.221	0.454	0	0.37	17
27	Keshpur	0.632	0.513	0.4	0.538	0.197	0.447	0.258	0	0.37	16
28	Medinipur	0.665	0.527	0.584	0.761	0.22	0.748	0.225	0.5	0.53	7
29	Salboni	0.663	0.164	0.323	0.615	0.156	0.689	0.214	0.5	0.42	15

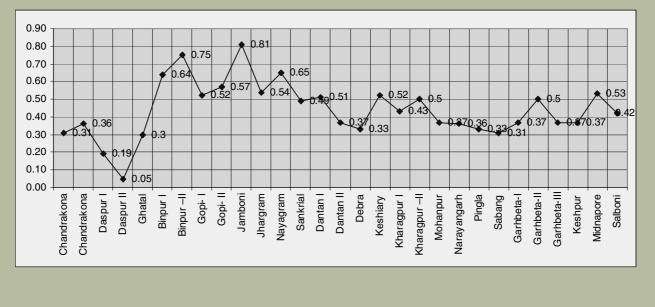
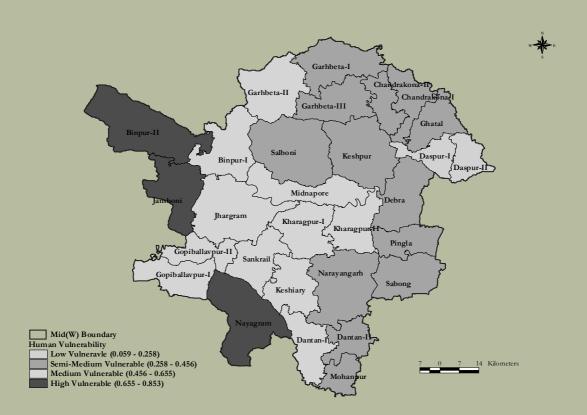
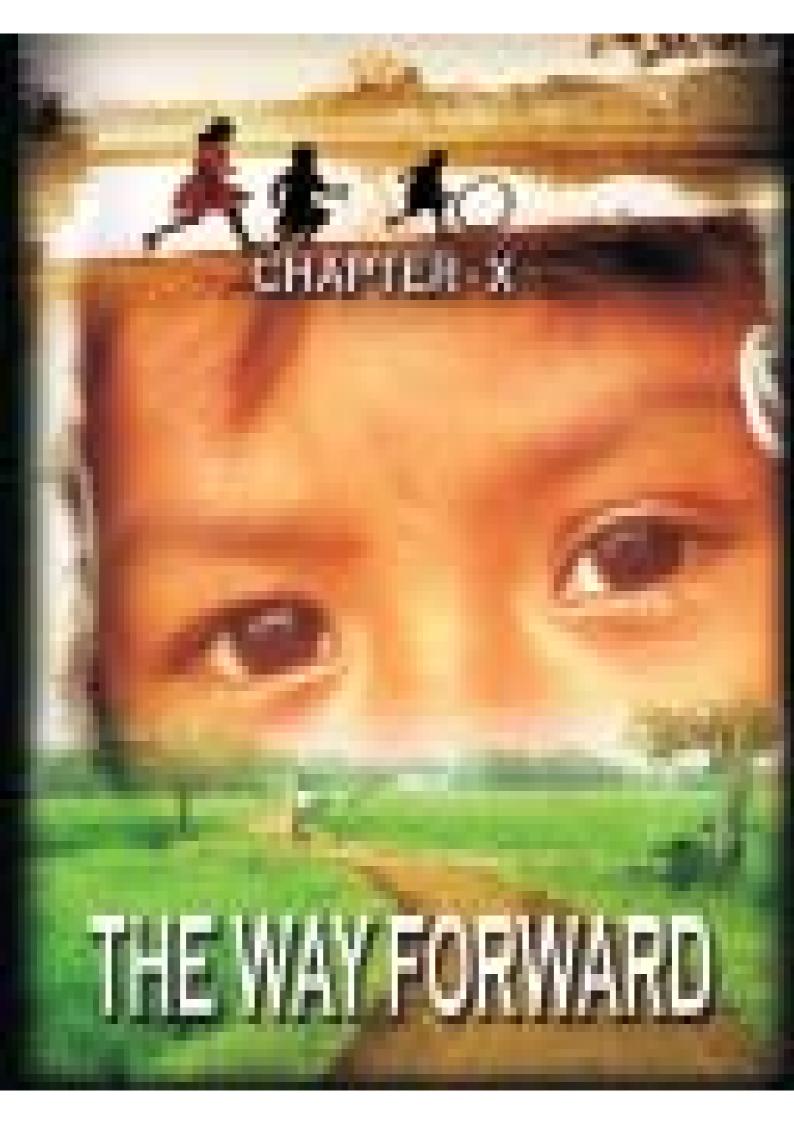


Figure 9.1 Vulnerability Index in the Blocks of Paschim Medinipur

The main message of this chapter is that achieving sustainable development in Paschim Medinipur will require maintaining natural assets and reducing human vulnerability.



Map 9.2 Vulnerability Index in Paschim Medinipur District



# **Chapter X**

#### THE WAY FORWARD

Paschim Medinipur is a vast district with variety of challenges and issues. The district has two distinct divisions, undulating arid zone and low relief alluvial zone. Around 33% of population belongs to vulnerable SC-ST categories. With 90% of population living in rural areas, economy continues to be dependent on agriculture. In the western part, more than 54 % population belongs to SC-ST categories of which 29% population belongs to tribal community. Around 18% of the district is covered with forests with some blocks having 30 to 40% of area under forest. Many areas of the district are remote and not so well connected. The overall position of literacy is relatively better but there is huge gender gap in literacy. The literacy among the STs is especially low with it being very low in ST females.

Human Development Index is one of the key indicators for pointing out the difference between developed and underdeveloped zone in the concerned area. The indicators presented in Chapter-I show human development scenario of Paschim Medinipur district vis-à-vis West Bengal. A composite index is also formed in that chapter for evaluating the variation in the Human development across the blocks of the district. The HDI of Paschim Medinipur has been calculated on the basis of three basic indices, viz., education index, health index and economic livelihood index by using the methodology developed by the UNDP - the construction of the individual indices are elaborated in chapters 3, 4 and 5 respectively.

#### **Educational Index**

Calculation of educational index has been done on the basis of two very reliable sources of data available on education across the blocks of any district in India - the Census data for literacy and the DISE data for enrolment and infrastructure. These indicators have been used to evaluate adult literacy index and enrolment index and have been combined to formulate the education index by using the UNDP methodology. However, some other indicators are also given and explained in the chapter. The main problem in accommodating all these indicators in the index is to attach proper weights to them. The implication of these indicators (Enrolment, Adult Literacy Index, Female Literacy Index, SC Literacy Index, ST Literacy Index, School Student Ratio Index and Teacher Student Ratio Index) with respect to the scenario of the blocks has been delineated through radars. The coloured area in the shown set of radars indicates the proportion of development.

Indices based on normative goalposts for the above two indicators and the combined education indices are presented in Table 3.19 (Chapter-III). It shows that the education index is highest in Sabang (0.837) followed by Pingla (0.829) and lowest in Nayagram (0.622) preceded by Gopiballavpur-I (0.623). It implies that Sabang has succeeded to attain 83.70% development in education and the remaining 16.30% is yet to be achieved and the success is due to its achievement to the tune of 95.10% in enrolment and 78.00% in adult literacy. On the other hand, in the block Nayagram, the attainment in education is only 62.20% and though the enrolment ratio in this block is not very low (88.30%) the ultimate attainment remains low for its low adult literacy rate at 48.20% only. If attention is given at the sub-divisions, it is found that the attainment in education is highest in Ghatal sub-division (76.50%) and lowest in Jhargram sub-division (66.50%). The said index for all blocks of Paschim Medinipur district taken together is 0.724. This implies that the rural areas of Paschim Medinipur district have attained 72.40% success in education (more than 2/3rd success) and the remaining 27.60% is yet to be achieved.

#### **Health Index**

Basic data for the construction of the Health Indices are presented in Table 4.24 (Chapter-IV). The methodology of calculating health index has been elaborated in the chapter. Three basic indicators have been used in this respect, viz., child malnutrition, immunisation and adult malnutrition. Indices based on normative goalposts for these three indicators along with child health index, adult health index and combined health index are presented in Table 4.25. It shows that the health index is highest in Daspur-II (0.803) followed by Daspur-I (0.738) and Debra (0.693), and is lowest in Nayagram (0.387) preceded by Jamboni (0.465) and Binpur-II (0.471).

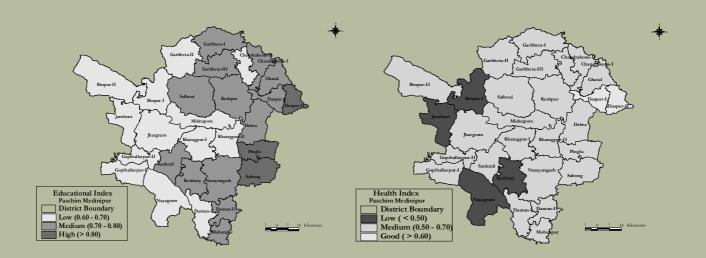
The implications of the results are straight forward and reveal that Daspur-II block has been succeeded to attain a 80.30% development in health and the remaining 19.70% is yet to be achieved. The success is due to its achievement to the tune of 79.66% in child non-malnutrition, 83.44% in immunisation and 78.96% in adult non-malnutrition respectively. On the other hand, Nayagram block scores only 38.70% though the immunization rate and the percentage of non-malnourished children in this block are not very low (67.33% and 48.08% respectively) as compared to percentage of adult non-malnourishment (19.70%) which is very low. In respect of subdivisions, Ghatal scores highest i.e 71.40% and Jhargram scores lowest i.e. 50.90%. The said index for all the blocks of Paschim Medinipur district taken together is 0.594. It implies that the rural areas of Paschim Medinipur district have attained 59.40% success in health (a less than 2/3rd success) and the remaining 40.60% is yet to be achieved. Three indicators used in evaluating the health index, i.e., Child Non-Malnutrition Index, Full Immunisation Index, Adult Non-Malnutrition Index, along with some other indicators, viz., Non-Low Birth Weight Index, Institutional Delivery Index and Sanitation Index are used to present the scenario of the blocks through radars.

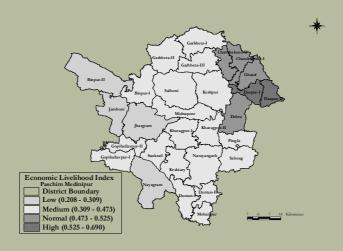
#### **Economic livelihood Index**

Economic livelihood is one of the major aspects which vividly indicate the progress of development of the concerned area. Economic livelihood index (ELI) is calculated based on equal weightage of foodgrains productivity index, percentage of non-marginal workers index and APL index. Daspur II is ranked first in terms of economic livelihood index followed by Daspur I, Chandrakona II, Ghatal and Debra. Binpur-II registered the lowest 29th rank led by Jamboni, Nayagram and Binpur-I which belong to agriculturally lagging and ecologically adverse region of the district (Table 5.32, Chapter-V).

The substantial variation of ELI across different blocks in the district is closely related to the development of agriculture, literacy and physical infrastructure. Agricultural scenario is one of the important aspects, which indicates livelihood pattern of the area. This is quite obvious for agriculture based district like Paschim Medinipur.

MAP 10.1 Spatial comparison of dimensions of Human Development in Paschim Medinipur District





These three indices have been combined together to formulate the Human Development Index (HDI) of different blocks in the district. Human development index has been prepared by giving equal weightage to education index, health index and economic livelihood index. Daspur II ranks first in terms of human development index (0.772) followed by Daspur I (0.728) and Ghatal (0.649). Nayagram has the lowest value of Human Development Index (0.423) precede by Jamboni (0.454) and Binpur II (0.479) [Table 10.1]. Graphical presentation (page 16 Figure 1.1) as well as geographical delineation of the blocks as per HDI value (page 17 Map 1.3) give a complete perception about human development of different blocks in the district.

Table 10.1 Human Development Indices of the Blocks of Paschim Medinipur District

Block	Education index	Health index	Economic Livelihood Index	HDI	Rank
Daspur-II	0.823	0.803	0.690	0.772	1
Daspur-I	0.770	0.738	0.677	0.728	2
Ghatal	0.763	0.669	0.515	0.649	3
Debra	0.727	0.693	0.503	0.641	4
Chandrakona-I	0.740	0.646	0.501	0.629	5
Chandrakona-II	0.683	0.676	0.525	0.628	6
Sabang	0.837	0.559	0.460	0.619	7
Pingla	0.829	0.591	0.430	0.617	8
Mohanpur	0.761	0.564	0.473	0.599	9
Salboni	0.721	0.644	0.422	0.596	10
Garhbeta-III	0.701	0.649	0.434	0.595	11
Keshpur	0.733	0.599	0.443	0.592	12
Garhbeta-I	0.708	0.622	0.431	0.587	13
Dantan-II	0.756	0.574	0.425	0.585	14
Narayangarh	0.729	0.611	0.368	0.569	15
Garhbeta-II	0.675	0.621	0.349	0.548	16
Dantan-I	0.687	0.553	0.391	0.544	17
Kharagpur-I	0.693	0.552	0.379	0.541	18
Gopiballavpur-II	0.655	0.553	0.397	0.535	19
Kharagpur -II	0.695	0.559	0.351	0.535	20
Keshiary	0.734	0.506	0.356	0.532	21
Sankrial	0.705	0.545	0.332	0.527	22
Gopiballavpur-l	0.623	0.553	0.395	0.524	23
Medinipur	0.676	0.515	0.371	0.521	24
Jhargram	0.692	0.547	0.309	0.516	25
Binpur-I	0.678	0.471	0.367	0.505	26
Binpur-II	0.665	0.564	0.208	0.479	27
Jamboni	0.669	0.465	0.227	0.454	28
Nayagram	0.622	0.387	0.260	0.423	29

If we look closely into the dimension indices along with the human development index given in Table 10.1, we find that the dimension indices are closely and directly related with each other and also to the final human development index. The ranks of different blocks in dimension indices and also in human

development index are shown in Table 10.2. It is observed that in blocks like Daspur-II, Daspur-I, Ghatal, Debra and Chandrakona-I, the indices for all three dimensions are more than district average and these blocks fall mainly in the Ghatal sub-division. On the other hand, in blocks like Nayagram, Jamboni, Binpur-II, Binpur-I, Jhargram, Medinipur, Gopiballavpur-I, Sankarail, Kharagpur-II, Gopiballavpur-II, Kharagpur-I and Dantan-I, the indices for all three dimensions are less than district average and these blocks fall mainly in the Jhargram sub-division. It can be also noted that all eight blocks in Jhargram subdivision fall in this category. Relatively worse position of Medinipur Sadar block and Kharagpur-I block is partly due to the fact that the indices does not include the municipal areas and partly due to the fact that the panchayats of these two blocks are populated mainly with SCs, STs and Minorities in the slum outskirts of the municipalities. Position of different municipalities with respect to human development is discussed in the urbanisation chapter. Majority of the blocks in Kharagpur and Medinipur Sadar subdivisions exhibit unbalanced situation with respect to different indicators of human development. For example, the Keshiary block, though has succeeded to attain a respectable position with respect to education, has failed to attain any significant level of development in health and economic livelihood and the rank of the block in HDI is 21 in 29 blocks. More acute is the situation for blocks like Sabang and Pingla. These two blocks secure rank 1 and 2 respectively in education but has failed to translate this into the development in health and economic livelihood. In the opposite side, Chandrakona-II block is well developed with respect to economic livelihood and health but due to its extreme worse position in education fails to attain a commendable position in HDI. In the blocks of these two subdivisions policies should be mainly on translations, whereas in the blocks of Jhargram sub-division policies should be formed for an overall development.

Table 10.2 Ranks of Blocks for Human Development Indicators in Paschim Medinipur District

Block	Education index Rank	Health index Rank	Economic Livelihood Index	Human Development Index Rank
Daspur-II	0.823	0.803	0.690	0.772
Daspur-II	3	1	1	1
Daspur-I	4	2	2	2
Ghatal	5	5	4	3
Debra	12	3	5	4
Chandrakona-I	8	7	6	5
Chandrakona-II	21	4	3	6
Sabang	1	17	8	7
Pingla	2	13	12	8
Mohanpur	6	15	7	9
Salboni	13	8	14	10
Garhbeta-III	16	6	10	11
Keshpur	10	12	9	12
Garhbeta-I	14	9	11	13
Dantan-II	7	14	13	14

Block	Education index Rank	Health index Rank	Economic Livelihood Index	Human Development Index Rank
Narayangarh	11	11	20	15
Garhbeta-II	24	10	24	16
Dantan-I	20	20	17	17
Kharagpur-I	18	22	18	18
Gopiballavpur-II	27	19	15	19
Kharagpur -II	17	18	23	20
Keshiary	9	26	22	21
Sankrial	15	24	25	22
Gopiballavpur-I	28	21	16	23
Medinipur	23	25	19	24
Jhargram	19	23	26	25
Binpur-I	22	16	21	26
Binpur -II	26	27	29	27
Jamboni	25	28	28	28
Nayagram	29	29	27	29

# **Overall Development Agenda for the District**

Livelihood opportunities are less in the western blocks because of poor irrigation facilities and low productivity of different crops. 11 blocks out of 29 blocks are badly affected with LWE violence and thereby posing serious challenges for protection of individual life and property, as well as carrying out the development agenda.

Considering these multifarious challenges, it is imperative to adopt a time bound strategy to carry out development agenda with special emphasis of development in the western parts of the district -

- As agriculture continues to be major economic activity in the rural areas, special efforts must be
  made to increase the irrigation potential with emphasis on rain water harvesting and watershed
  development. Special efforts should be made in promotion of horticulture and other cash crops
  such as oil seeds, pulses etc. The district produces surplus paddy, potato and vegetables but
  there are very few facilities for subsequent processing. Special efforts should be made for
  development of these facilities.
- There is ample scope for promotion of Animal Husbandry activities. Special efforts must be
  given for promoting goatery and poultry through involvement of SHGs. There is also ample
  scope for increasing the milk production with induction of new cattle and promoting artificial
  insemination.
- Availability of credit in the rural areas continues to be a major issue. Hence, it is needed to have more and more SHGs in the rural areas. Special efforts should also be made for promotion of agricultural credit with achieving universal Kisan Credit Cards. This will help in the promotion and adoption of better agriculture inputs.

- Bottlenecks in the rural infrastructure continue to be the major impediment. Hence, it is essential that road network and Rural Electrification should be improved immediately.
- Promotion of literacy and development of school education specially in the remote tribal blocks
  continue to be a major challenge. The district is already included in the Sakshar Bharat Programme
  for promotion of adult literacy. Sarva Siksha Mission and Rashtriya Madhyamik Mission are also
  running in the district for promoting school education but there is need to have more residential
  schools in the tribal areas and arrangement of supplementary coaching in the higher classes.
  Absenteeism continues to be major problem hence; option of engagement of teachers from the
  local areas should also be looked into.
- Special efforts should be made for promoting skill development specially in the tribal areas. In this regard, government efforts should be supplemented with participation of NGOs.
- Self Help Groups can be the agent of change because they empower the female folk. Hence, special effort must be made for promoting SHGs, their skill development and credit linkage.
- Malnutrition continues to be a major challenge. Hence, it is essential to ensure proper running of ICDS centres and creating awareness for proper feeding.
- Efforts should be also made for promotion of safe drinking water availability and proper sanitation facility. This will help in reducing the incidences of water borne diseases.
- There is a reduced availability of health sector man-power in the western tribal dominated blocks of the district. At the same time more and more number of people are dependent on government sector for the proper treatment. Hence, special efforts should be given for engagement of doctors and other health staff for these blocks. If required, special incentives should be paid for working in the remote areas. Involvement of NGOs should be encouraged.

Ensuring human development in the difficult circumstances is always a challenge. However, challenges will have to be taken, if it is needed to have promote growth with equity and thereby, ensuring over all well being for all. However, it must be realised that this deprivation has taken place over centuries and hence, it is difficult to have an overnight solution. However, the process must start and proficient personalities must be patient and persistent in these efforts.