


**DISTRICT
HUMAN
DEVELOPMENT
REPORT
NORTH 24 PARGANAS**



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

District Human Development Report: North 24 Parganas

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Government of West Bengal

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Front Cover Photograph: Women of SGSY group at work.
Back Cover Photograph: Royal Bengal Tiger of the Sunderban.

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Foreword

It has been generally accepted since ancient times that welfare and well being of human is the ultimate goal of Human Development. An environment has to be created so that the people, who are at the centre of the churning process, are able to lead healthy and creative lives.

With the publication of the West Bengal Human Development Report in 2004 and it being subsequently awarded by the UNDP for its dispassionate quality of analysis and richness in contents, we had to strive really hard to prepare the District Human Development Reports. So far we have been able to publish DHDRs for Bankura, Malda, Birbhum and South 24 Parganas. The DHDRs of Purulia, Paschim Medinipur, Purba Medinipur, Hooghly, Nadia, Jalpaiguri and Coochbehar are under different stages of preparation. The DHDR of Bankura has received widespread appreciation for its innovation in measurement of Human Development Index (HDI).

The DHDR of North 24 Parganas portrays the diverse features of this district and also depicts the multilayered development that has taken place, over the past five to six decades. Burgeoning urbanisation and very presence of the Sunderbans open up a rare opportunity to the policy makers and practitioners of development of further study the intrinsic nature of North 24 Parganas and find out new initiatives. Despite having the IT Hub of the Eastern Region located within its boundaries, it has a high rate of industrial disputes to settle. Rise in income and purchasing power in the ever-spreading urban areas is matched by acute distress in the rural areas (nearly 30% of rural households) and severe mal-nutrition in the slums.

I avail this opportunity to thank the peoples' representatives, the administrators, the academicians and all those who have contributed to the preparation of this document, including the eminent members of the State Planning Board and the officials of the Development and Planning Department. I am sure that their efforts will be rewarded in the long-run when the district will find its place of eminence in the arena of Human Development.


[Nirupam Sen]

Preface

Right now we are in a bind. While the smart flaunting of the mobile phone by the neighborhood *Rickshaw puller* presently is being construed as the loadstar of development, statistics reveal the side by side existence of a huge majority surviving in an abyss of poverty and sub-human condition. The perception of development indicator thus varies leading to somewhat blurred image of a particular area or district.

A District Human Development Report does not attempt to plan a road between this proverbial Scylla and Charybdis. Rather it tries to depict the objective situation so that a roadmap to development can be arrived at. Basically, therefore, it is a tool to develop the strategy for ensuring equitable development. And for this, we remained constantly on guard to ensure the portrayal of the objective scenario of the district so that the resultant roadmap does not pirouette and fall face down.

This report consists of eight chapters harnessing the entire urban-rural continuum of our district. The First Chapter 'North 24 Parganas -Some Key Features' deals with the basic features of the district, Second and Third Chapter 'Rural North 24 Parganas - Key Features', 'Urban North 24 Parganas - Key Features' describes the salient points of these two important socio-economic constructs. Fourth and Fifth Chapters elaborate on the livelihood patterns of rural and urban areas of the district. The all important Sixth and Seventh Chapters of the Report delineate the position of health system and the educational opportunities existing in the district along with their performance map. The Eighth chapter indicates the 'Vulnerability' of the population and the 'coping mechanism' generally adhered to. The district basking under the hue of rapid urbanization provide many a turn, albeit interesting, in different sectors. For instance, the average life expectancy among women in this district is quite high in comparison to other districts but at the same time social and criminal atrocities against women also registers higher incidence. These sorts of interesting juxtaposition of hard facts spell the real character of the district and covertly describe the difficult terrain we have to trudge in ensuring equitable development. In fact, to harness this total range of affairs of the district spread over different geographical regions, rural urban continuum and living status of people we had to engage 'Org-Nielson' to conduct a baseline survey of the district through a structured questionnaire on a sample size which was large enough to capture the diversity of the district and at the same time small enough to handle in a limited period of time. Apart from this we took help of other two tools 'focused group discussion' and 'survey by expert' to have a feel of the situation. The data provided in the book are drawn from departmental sources and the normal published secondary source. The Draft Report has been validated in two 'stakeholders meeting' and in a state level experts' meeting. The feedbacks from these exercises were incorporated and the final draft was revalidated by the concerned district level departments.

I put on record my sincere thanks to all who have been involved in the exercise. I am grateful to all the officers at the grass root level who have provided the data. I convey my sincerest thanks to the officers of the line departments including the departments of Land, Forest, Agriculture, Animal Resource Development, Fisheries, Agri-irrigation, Public Health Engineering, Khadi and Village industries, SSA, Education and allied departments, Health , Social Welfare, ICDS, Food and Supplies, Bureau of Applied Economics and Statistics, PRATHAM a NGO and the Lead District Manager Allahabad Bank. The District Rural Development Cell and the District Planning Office acted as the nodal offices in collating and arranging the data from different sources. I am also very thankful to Sabhadhipati of North 24 Parganas Zilla Parishad and the Karmadhyakshyas of Zilla Parishad for their inputs and involvement in the entire process. A special 'thank you' goes to Superintendent of Police, North 24 Parganas, Project Director DRDC and Sub-Divisional Officer Bidhannagar for their unflinching support. I express my deep gratitude to Lead Coordinator Prof. Ratan Khasnabis Department of Business Management University Of Calcutta and his band of associates Smt Anusri Mahato, Smt Abira Roy of 'Center for Studies in Economic Appraisal' and Sri Arindam Bhattacharyya Barasat Govt. College, Deptt. of Economics for their undaunted devotion in writing the entire report in a very short time and against all odds. Really it was a classic situation of 'When Time Ran Out'.

Finally, I express my sincere thanks to the Development and Planning Department, Government of West Bengal, for their kind guidance and constant encouragement.

March, 2009
Barasat
North 24 Parganas



Binod Kumar
District Magistrate
North 24 Parganas

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CHAPTER - 1

Chapter 1

INTRODUCTION

1.1 North 24 Parganas: Some Key Features

North 24 Parganas has a geographical area of 0.42 million hectares of which 0.37 million hectares is rural. 0.05 million hectares containing 55 urban units constitutes urban area of the district. According to Census 2001, 54 percent of the population of the district belongs to urban areas, which is why the occupational pattern of the district has a tilt in favour of urban activities.

North 24 Parganas as an administrative unit had its origin in 1986 when the old 24 Parganas district was bifurcated in two separate units. The district was physically formed on March 1, 1986. The nomenclature 24 Parganas had its origin in 1757 when Mir Zafor as Nabab of Bengal, ceded to the East India Company the rights of revenue collection in twenty four *mahals* under the jurisdiction of Nabab of Bengal. 'Some of these *mahals* had been full *parganas*, others being parts of *parganas* and one being Malang Mahal'. Perhaps "24 part parganas was found too cumbrous and the name was converted into twenty four parganas. (District Gazetteers, 24 Parganas, March 1994).

North 24 Parganas lies between 21° 25' 30" and 23° 16' 50" north latitudes and 88° 01' 10" and 89° 06' 15" east longitudes. The district resembles an irregular triangle in shape. It has artificial land frontiers as well as natural water boundaries. Nadia district lies to its north and the Bay of Bengal to its south. Much of its eastern boundary is with Bangladesh. On the west it is bounded by Calcutta and the river Hooghly. The southwest boundary of the district is with 24 parganas (south). As a border district 24 parganas (north) is of special importance because of its proximity to Kolkata, the gateway to Eastern India.

The district has five Sub-divisions and 37 police stations with District Head Quarter at Barasat. According to Census 2001, there are 1571 inhabited villages distributed over 22 development blocks. The district has 22 Panchayat Samities and 200 Gram Panchayats with 2923 Gram Sansads. In urban North 24 Parganas there are 27 municipalities, 20 Census Towns, 7 Urban Outgrowths and one town under Cantonment Board. The annual rainfall in the district had been 1347 mm. in 2003. The temperature of the district varies from 40° Celsius to 8° Celsius.

Administrative Map



**BLOCKS, MUNICIPALITIES
NORTH 24-PARGANAS**

North 24 Parganas is a deltaic district of West Bengal. It embraces the moribund delta in the north, matured delta in the middle, and active delta in the south and a depressed zone of brackish marshes between the active and the mature delta. Most of the soils derived from alluvial deposits are azonal with little or no profile development. Clay loam is the predominating type. Clays with or without muck soils occur in swamps and alluvial lakes. These soils have been formed from deposits brought by tidal currents.

The active delta still growing southwards is a system of innumerable tidal rivers, canals and creeks, saline soils, swamps and marshes. A part of this active delta contains forests. Known as Sunderbans, this part of the active delta region is under reserve forests. Quite a large part of Sunderbans has been brought under cultivation. Even then the area of Sunderbans spread over 24 Parganas (north and south) is .42 million hectares (1629 sq. km.). Sunderbans is a mangrove forest. All the mangroves protect the shore from erosion and aid in accumulation of deposit of peat and mud. Snails, crabs and other marine species usually populate heavily beneath mangroves.

1.2 Population Density and Quality of Life

Table 1.2.1: Area & Population Density

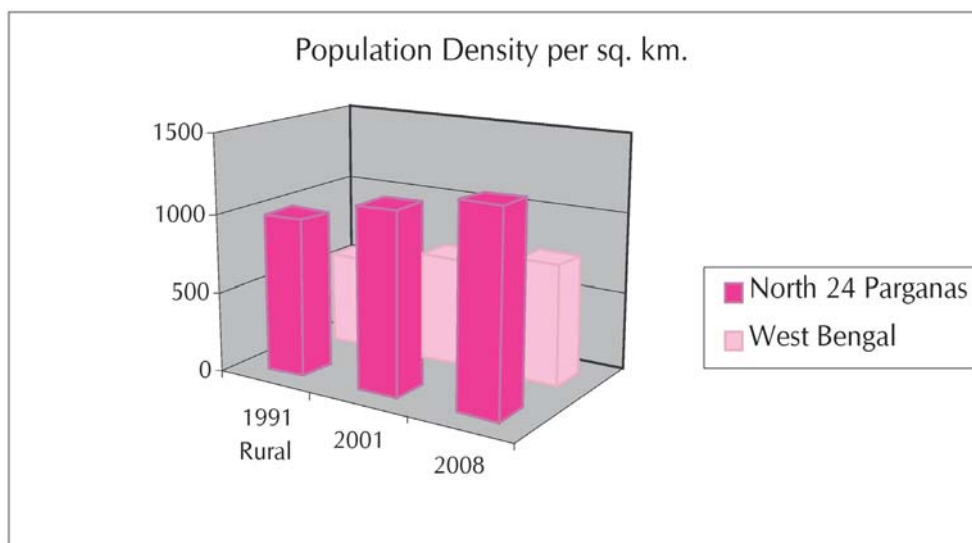
Sl. No.	District	Area in Sq. Kms.	Rank	Population (2001)	Rank	Population Density (Per Sq.Km.)	Rank
1	Bankura	6882	4	3192695	12	464	17
2	Birbhum	4545	8	3015422	13	663	14
3	Bardhaman	7024	3	6895514	4	982	7
4	Coochbehar	3387	12	2479155	15	732	10
5	Dakshin Dinajpur	2219	16	1503178	18	677	13
6	Darjeeling	3149	13	1609172	17	511	16
7	Hooghly	3149	14	5041976	6	1601	4
8	Howrah	1467	17	4273099	9	2913	2
9	Jalpaiguri	6227	6	3401173	10	546	15
10	Kolkata	185	18	4572876	8	24718	1
11	Malda	3733	11	3290468	11	881	8
12	Medinipur	14081	1	9610788	1	683	12
13	Murshidabad	5324	7	5866569	5	1102	6
14	Nadia	3927	10	4604827	7	1173	5
15	North 24 Parganas	4094	9	8934286	2	2182	3
16	Purulia	6259	5	2536516	14	405	18
17	South 24 Parganas	9960	2	6906689	3	693	11
18	Uttar Dinajpur	3140	15	2441794	16	778	9
	West Bengal	88752		80176197		903	

Source: Statistical Abstract 2005 of Bureau of Applied Economics & Statistics.

According to Census 2001, the population of North 24 Parganas is 8934286. Between 1991 and 2001 the population increased by 22.69 percent. The decadal growth rate of population in West Bengal and India during 1991-2001 had been 17.77 and 21.35 percent respectively. The growth rate of population in North 24 Parganas was thus higher than the average growth rate of population in West Bengal. In fact, the growth rate of population in the district was higher than the all India average. Among all the districts in India, North 24 Parganas ranks second in terms of total population. (After the bifurcation of Midnapur which was the largest district in terms of population, North 24 Parganas now ranks first among the districts of West Bengal) The All India rank in terms of the decadal growth rate was rather low (rank 275).

With an area of 4094 sq. km., North 24 Parganas ranks ninth in terms of area among the districts of the state. In terms of population (2001) however, the district ranks second. Indeed, the district is densely populated. The district ranks 20th in term of density per sq. km. among all the districts of India. In West Bengal, with a population density of 2182 per sq. km., the district ranks third. Only Kolkata and Howrah, report higher population density than North 24 Parganas. The population density of the district was 2.42 times higher than the state average in 2001. Successive Census data also indicate that the density of population in North 24 Parganas is higher than the state average, both in the urban and rural segments of the district (Fig 1.2.1 & Fig 1.2.2). North 24 Parganas being a border district, the high density of population is explained, in the main, by large-scale migration to this district from eastern part of undivided Bengal during and after the partition.

Figure 1.2.1: Population Density per sq. km. in rural segments of North 24 Parganas & West Bengal



High density is also explained partly by the rapid growth of urbanization in the district. In 1991, the percentage of urban population in the district has been 51.23; by 2001 the population in the urban areas of North 24 Parganas increased by 3.07 percentage points. In 2001, 4850947 persons reported to reside in urban North 24 Parganas. By reasonable projection, the current population in the urban part of the district is 5830214. With a landmass of 488.56 sq.km. the density of population in urban North 24 Parganas now, is as high as 11933 per sq.km. In 2001, the population density in urban North 24 Parganas was 9929 per sq. km. By about eight years, the population density in the urban part of the district increased by 2004 per sq. km. The district is experiencing a high rate of urbanization.

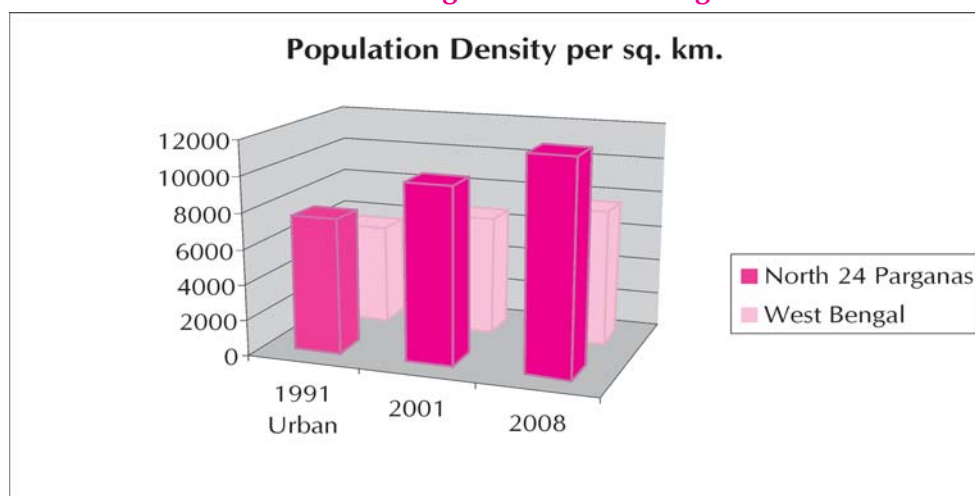
Table 1.2.2: Population Density in Rural and Urban Segments of North 24 Parganas & West Bengal

		North 24 Parganas			West Bengal		
		Area	Population	Density	Area	Population	Density
Rural	1991	3605.44	3551581	985	85427.26	49370364	578
	2001	3605.44	4083339	1133	85427.26	57748946	676
	2008	3605.44	4502265	1249	85427.26	64446372	754
Urban	1991	488.56	3730300	7635	3324.74	18707601	5627
	2001	488.56	4850947	9929	3324.74	22427251	6746
	2008	488.56	5830214	11933	3324.74	25462826	7659
Total	1991	4094	7281881	1779	88752	68077965	767
	2001	4094	8934286	2182	88752	80176197	903
	2008	4094	10309349	2518	88752	89902687	1013

Source: Census, 2001

According to Census data, the gender distribution of population in North 24 Parganas is adverse to female. In the district, there had been 927 female population per thousand male in 2001. In this context, one should point out that sex ratio is adverse to female not only in North 24 Parganas but also in other districts of the state. In fact, the gender distribution of the population in West Bengal as a whole is adverse to female. In West Bengal there are 934 female per thousand male population, according to Census 2001. Only redeeming feature is that the inter Census growth rate of female population in the district was higher than that of male, so that between 1991 and 2001, female population in the district gained by 20 persons per thousand male. In West Bengal also, there was a turnaround between 1991 and 2001; but the gain in favour of female population was higher in North 24 Parganas (In West Bengal female per thousand male increased by 17 persons between 1991 and 2001).

Figure 1.2.2: Population Density per sq. km. in urban segments of North 24 Parganas & West Bengal



Source: Statistical Abstract 2005, Bureau of Applied Economics and Statistics, Government of West Bengal

According to Human Development Report (HDR), Government of West Bengal (2004), the life expectancy at birth for the female population in the district is 71 years. It is higher than that what is expected at the state level (69 years). Life expectancy at birth for the female population is 65 years at all India level. One may therefore conclude that an average female in North 24 Parganas is expected to live more than 6 years than what is expected in case of female at the all India level. In this context, we should mention that life expectancy at birth for the male in North 24 Parganas is 66 years which is lower than that of its female counterpart. One may however note that life expectancy of a male resident of North 24 Parganas is slightly higher than what is expected at the state level (65 years) or at all India level (64 years).

According to Census 2001, the literacy rate in West Bengal is 68.74 percent. In North 24 Parganas, the literacy rate is much higher (78.07 percent) than the state average. In fact, North 24 Parganas ranks second in terms of literacy rate among eighteen districts of West Bengal (Kolkata ranks 1). Both in terms of male and female literacy rates the performance of the district is quite noteworthy. According to Census 2001, 83.92 percent of the male population of the district was reported to be literate (Table 1.2.3); the corresponding percentage among the female was 71.72 percent (Medinipur ranks 1 in terms of male literacy rate, North 24 Parganas ranks second and Kolkata ranks third). The female literacy rate in the state is 59.61 percent. In North 24 Parganas the rate is much higher (the rank being second, next only to Kolkata). The high literacy rate in the district is largely due to the fact that the district is more urbanized and in India literacy rate in the urban areas is found to be higher than that in the rural areas.

Table 1.2.3: Literacy Rates in Districts of West Bengal

Sl. No.	District	Literacy rate	Rank	Literacy rate Male	Rank	Literacy Rate Female	Rank
1	Bankura	63.44	12	76.76	9	49.43	14
2	Birbhum	61.48	14	70.89	15	51.55	13
3	Bardhaman	70.18	7	78.63	8	60.95	7
4	Coochbehar	66.3	9	75.93	10	56.12	10
5	Dakshin Dinajpur	63.59	11	72.43	13	54.28	11
6	Darjeeling	71.79	6	80.05	6	62.94	6
7	Hooghly	75.11	4	82.59	5	67.21	4
8	Howrah	77.01	3	83.22	4	70.11	3
9	Jalpaiguri	62.85	13	72.83	12	52.21	12
10	Kolkata	80.86	1	83.79	3	77.3	1
11	Malda	50.28	17	58.8	17	41.25	16
12	Medinipur	74.9	5	84.91	1	64.42	5
13	Murshidabad	54.35	16	60.71	16	47.63	15
14	Nadia	66.14	10	72.31	14	59.58	8
15	North 24 Parganas	78.07	2	83.92	2	71.72	2
16	Purulia	55.57	15	73.72	11	36.5	18
17	South 24 Parganas	69.45	8	79.19	7	59.01	9
18	Uttar Dinajpur	47.89	18	58.48	18	36.51	17
	West Bengal	68.74		77.02		59.61	

Source: Statistical Abstract 2005, Bureau of Applied Economics and Statistics, Government of West Bengal

Per Capita State Domestic Product (SDP) in West Bengal was Rs. 16072.26 in 2000-2001. Per capita SDP in North 24 Parganas in the same year had been Rs. 14768.32 which is lower than the state average. Among the eighteen districts of the state North 24 Parganas ranked 11. The highest per capita income was recorded in Kolkata. An average resident of North 24 Parganas had been earning only 44.3 percent of per capita SDP in Kolkata. In terms of SDP therefore North 24 Parganas is relatively less prosperous although the population density is quite high in the district. Other point to be noted is that per capita SDP in North 24 Parganas was 56.7 percent of per capita SDP in Kolkata in 1980-81. By two decades, the situation deteriorated further and the SDP rank of North 24 Parganas declined from 6 to 11. (Table 1.2.4)

Table 1.2.4: District Per Capita Incomes in West Bengal

Serial Number	Districts	In Rupees, 2000-01	Rank in 2000-01	Per cent of highest in 2000-01	Rank in 1980-81	Per cent of highest in 1980-81
1	Darjeeling	18529.18	2	55.6	2	70.8
2	Jalpaiguri	16749.07	4	50.3	11	38
3	Coochbehar	13855.35	13	41.6	16	31.7
4	Uttar Dinajpur	11182.86	18	33.6	14	34.5
5	Dakshin Dinajpur	14579.15	12	43.8	14	34.5
6	Malda	14777.2	10	44.4	17	31.2
7	Murshidabad	13392.39	15	40.2	18	31.1
8	Birbhum	12791.72	17	38.4	8	46.1
9	Bardhaman	17537.98	3	52.7	4	67
10	Nadia	16211.46	6	48.7	12	35.2
11	North 24 Parganas	14768.32	11	44.3	6	56.7
12	Hooghly	16279.65	5	48.9	5	63
13	Bankura	15741.64	7	47.3	10	41.9
14	Purulia	13044.67	16	39.2	9	43.2
15	Medinipur	15526.01	9	46.6	13	34.6
16	Howrah	15591.44	8	46.8	3	70.3
17	Kolkata	33299.5	1	100	1	100
18	South 24 Parganas	13630.22	14	40.9	6	56.7
19	West Bengal	16072.26	—	48.3	—	51

Source: HDR, West Bengal, 2004.

Note: For 1980-81, the data refer to the undivided districts of 24 Parganas and Dinajpur

Although the district could not fair well in terms of per capita SDP, the Human Development Index (HDI) rank of the district is 3 among eighteen districts of the state (Table 1.2.5). This is due to the fact that the performance of the district in terms of two other indices namely, Health and Education indices is quite

impressive. In fact, the performance of North 24 Parganas with respect to Education Index is the best among all the districts of the state, excluding Kolkata. With respect to Health Index also, the rank of the district is the fifth. It appears that with respect to HDI scores North 24 Parganas is better than Barddhaman and Hooghly, two prosperous districts of the state.

Table 1.2.5: Human Development Indices by District

Districts	Health Index	Income Index	Education Index	HDI	HDI Rank
Darjeeling	0.73	0.49	0.72	0.65	4
Jalpaiguri	0.61	0.38	0.60	0.53	10
Coochbehar	0.50	0.41	0.65	0.52	11
Dinajpur	0.62	0.39	0.53	0.51	13
Malda	0.49	0.36	0.48	0.44	17
Murshidabad	0.57	0.29	0.52	0.46	15
Birbhum	0.53	0.27	0.61	0.47	14
Barddhaman	0.74	0.47	0.71	0.64	5
Nadia	0.65	0.41	0.66	0.57	9
North 24 Parganas	0.72	0.49	0.76	0.66	3
Hooghly	0.77	0.46	0.67	0.63	6
Bankura	0.67	0.26	0.62	0.52	11
Purulia	0.61	0.18	0.55	0.45	16
Medinipur	0.68	0.45	0.74	0.62	7
Howrah	0.77	0.53	0.75	0.68	2
Kolkata	0.82	0.73	0.80	0.78	1
South 24 Parganas	0.71	0.40	0.68	0.60	8
West Bengal	0.70	0.43	0.69	0.61	—

Source: HDR, West Bengal, 2004

In terms of Gender Development Index (GDI) however, the performance of North 24 Parganas is not very impressive. The GDI score of the district is 0.564 which is above the GDI of West Bengal as a whole (0.549). But then the rank of the district is 6th. In terms of GDI the performance of the district is worse than what was observed in case of Darjeeling, Hooghly, Medinipur and Howrah. It appears that the score of the district was quite low in terms of gender based Income Index. While the index value for gender adjusted Income in West Bengal was 0.270, in North 24 Parganas it was only 0.219. The performance of the district was however, better in terms of both gender based Health and Education Indices. One may therefore conclude that women in North 24 Parganas were less deprived in terms of health and education related facilities, compared to male. However, in terms of entitlement to income, the female in North 24 Parganas were not as privileged as the women in Kolkata, Medinipur or Darjeeling.

Table 1.2.6: Gender Development Indices by District

Serial No.	Districts	Health Index	Income Index	Education Index	GDI	GDI Rank
1	Darjeeling	0.731	0.356	0.714	0.600	2
2	Jalpaiguri	0.614	0.281	0.581	0.492	11
3	Coochbehar	0.497	0.287	0.628	0.471	13
4	Dinajpur*	0.616	0.291	0.527	0.478	12
5	Malda	0.491	0.291	0.465	0.416	17
6	Murshidabad	0.566	0.176	0.527	0.423	16
7	Birbhum	0.533	0.178	0.595	0.435	14
8	Bardhaman	0.740	0.270	0.669	0.560	7
9	Nadia	0.649	0.215	0.653	0.506	9
10	North 24 Parganas	0.721	0.219	0.752	0.564	6
11	Hooghly	0.764	0.259	0.720	0.581	3
12	Bankura	0.662	0.215	0.605	0.494	10
13	Purulia	0.606	0.161	0.506	0.424	15
14	Medinipur	0.683	0.323	0.728	0.578	4
15	Howrah	0.773	0.194	0.742	0.570	5
16	Kolkata	0.824	0.320	0.783	0.642	1
17	South 24 Parganas	0.705	0.192	0.666	0.521	8
18	West Bengal	0.697	0.270	0.681	0.549	---

Source: HDR, West Bengal, 2004.

1.3 Occupational Pattern in the District

According to Census 2001, Work Participation Rate (WPR) in West Bengal is 36.77 percent. In North 24 Parganas, the WPR is 33.45. It appears that the WPR in the district is quite low. In fact, the district ranks 17th in terms of WPR among eighteen districts of the state (Table 1.3.1). WPR among the male population in the district is 53.93 which is almost equal to the average WPR in the state. However, the WPR of the female is only 11.33 which is much lower than the state average. Table 1.3.1 also indicates that, the WPR in Bankura, a backward district is as high as 44.70. The gender related WPR also indicates that the WPR in male as well as in female is higher than that in North 24 Parganas. In fact, the WPR in female in Bankura is 32.04 percent which is almost 3 times the WPR among the female in North 24 Parganas. The Census data also indicates that the WPR is higher in some other backward districts such as Dakshin Dinajpur (40.76) and Purulia (44.45). Compared to North 24 Parganas, the female WPR is also higher in these districts.

Table 1.3.1: Work Participation Rate in the Districts of West Bengal

Sl. no.	District	Percentage of Total workers (Total)	Rank	Percentage of Total workers (in) Male	Rank	Percentage of Total workers (in) Female	Rank
1	Bankura	44.70	1	56.75	2	32.04	2
2	Bardhaman	35.55	12	53.53	11	16.03	13
3	Birbhum	37.42	10	54.30	9	19.65	10
4	Dakshin Dinajpur	40.76	3	55.62	5	25.14	4
5	Darjeeling	35.39	13	48.51	18	21.38	9
6	Howrah	33.67	16	55.85	4	9.19	18
7	Hooghly	36.88	11	56.50	3	16.16	12
8	Jalpaiguri	38.31	7	52.27	14	23.50	6
9	Coochbehar	38.99	6	54.91	7	22.22	8
10	Kolkata	37.56	9	58.06	1	12.84	15
11	Malda	40.75	4	52.55	12	28.29	3
12	Murshidabad	34.18	15	51.14	17	16.37	11
13	Nadia	35.09	14	54.96	6	14.07	14
14	North 24 Parganas	33.45	17	53.93	10	11.33	17
15	Mednipur	39.03	5	54.50	8	22.82	7
16	Purulia	44.45	2	52.31	13	36.21	1
17	South 24 Parganas	32.47	18	51.82	16	11.83	16
18	Uttar Dinajpur	38.31	8	51.89	15	23.84	5
19	West Bengal	36.77	—	53.99	—	18.32	—

Source: Census, 2001

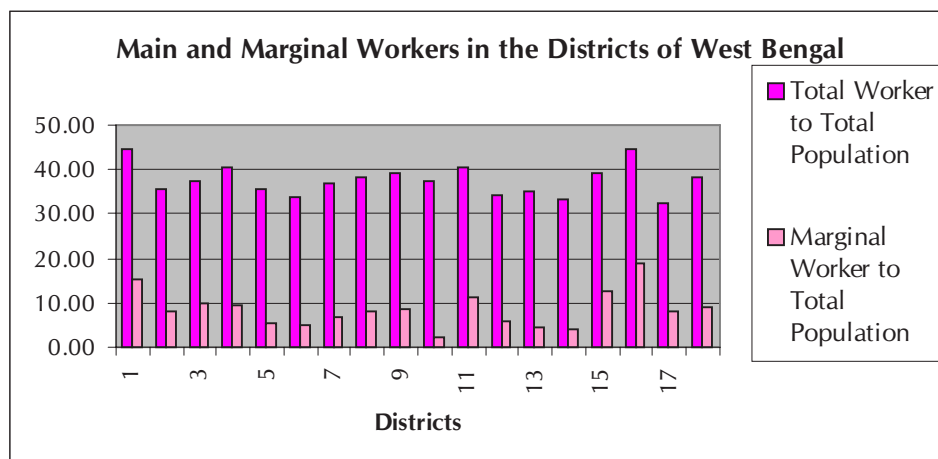
However, as we get from Table 1.3.2, higher WPR is mostly associated with the marginalisation of the workforce. For example, the percentage of main workers in Bankura is only 66.16 (rank 17) and that in Purulia is only 57.25 percent (rank 18). In North 24 Parganas on the other hand, the percentage of main workers is as high as 87.79 (rank 2). The burden of evidence is in favour of the argument that higher WPR in backward districts is due to the existence of higher percentage of marginal workers in both male and female. The districts are backward because the opportunities for regular employment are rather low in these districts. In North 24 Parganas, the WPR is lower than that in the backward districts. The WPR in the female is also low in this district. However, a high percentage of the workforce both in male and female is engaged as regular workers in this district (Table 1.3.2).

Table 1.3.2: Percentage of Main Workers as percentage of Total Workers in the Districts of West Bengal

Sl. no.	District	Percentage of Main workers to Total Workers	Rank	Percentage of Main workers to Male Workers	Rank	Percentage of Main workers to Female Workers	Rank
1	Bankura	66.16	17	81.76	16	37.12	16
2	Bardhaman	77.61	10	84.76	14	51.70	9
3	Birbhum	73.70	14	84.90	13	41.10	15
4	Dakshin Dinajpur	76.90	11	90.01	5	46.41	11
5	Darjeeling	84.09	5	89.12	10	71.93	2
6	Howrah	85.13	4	88.58	11	62.02	5
7	Hooghly	82.18	7	89.46	8	55.27	7
8	Jalpaiguri	78.69	8	89.20	9	53.88	8
9	Coochbehar	78.03	9	91.59	4	42.71	13
10	Kolkata	94.53	1	95.66	1	88.37	1
11	Malda	72.14	15	85.00	12	46.91	10
12	Murshidabad	83.40	6	89.62	6	62.99	4
13	Nadia	87.00	3	93.37	2	60.71	6
14	North 24 Parganas	87.79	2	92.06	3	65.87	3
15	Mednipur	67.45	16	80.01	17	36.05	17
16	Purulia	57.25	18	73.23	18	33.06	18
17	South 24 Parganas	74.82	13	81.78	15	42.32	14
18	Uttar Dinajpur	76.59	12	89.60	7	46.40	12
19	West Bengal	78.09	—	87.08	—	49.74	—

Source: Census, 2001

Table 1.3.3 describes the occupational distribution of the main workers in North 24 Parganas, as captured in the Census data (2001). Agriculture is no longer the mainstay of the population of the district. Cultivators together with agricultural labourer now account for only 22.24 percent of the main workers of North 24 Parganas. In West Bengal as a whole, the percentage of cultivators and agricultural labourers is still as high as 39.43 percent. The percentage of workers in household industry is also quite low in this district. The Census data (2001) reveals that about one fourth of the main workers of North 24 Parganas find their livelihood in non-agricultural activities which include trade & commerce, transport and storage, manufacturing, processing, servicing and repairs in other than household industry. This is only expected for a district in which the percentage of urban population is as high as 54 percent.

Figure 1.3.1: Main and Marginal Workers in the Districts

Source: Census 2001

Districts: 1: Bankura, 2: Bardhaman, 3: Birbhum, 4: Dakshin Dinajpur, 5: Darjeeling, 6: Howrah, 7: Howrah, 8: Jalpaiguri, 9: Coochbehar, 10: Kolkata, 11: Malda, 12: Murshidabad, 13: Nadia, 14: North 24 Parganas, 15: Medinipur, 16: Purulia, 17: South 24 Parganas, 18: Uttar Dinajpur

There exists a gender variation in the occupational distribution of workforce. The percentage of female workers earning livelihood from agriculture is only 10.38 percent in this district (the State average is 32.62 percent). Compared to male, a higher percentage of female workers are engaged in household industry. However, the participation rate of the female as main worker in household industry for the state as a whole is much higher than what is observed in North 24 Parganas.

Table 1.3.3: Occupational Distribution of the Main Workers

Gender		North 24 Parganas	West Bengal
Male	Agricultural Labour and Cultivator	23.9	40.67
	Household Industry Workers	2.47	3.99
	Other Workers	73.63	55.34
Female	Agricultural Labour and Cultivator	10.38	32.62
	Household Industry Workers	10.59	18.66
	Other Workers	79.03	48.72
Total	Agricultural Labour and Cultivator	22.24	39.43
	Household Industry Workers	3.46	6.24
	Other Workers	74.29	54.33

Note: Other Workers: Allied Agricultural Activities, Mining & Quarrying, Other than household industry, Construction, Trade & Commerce, Transport Storage and Communication, Other Services

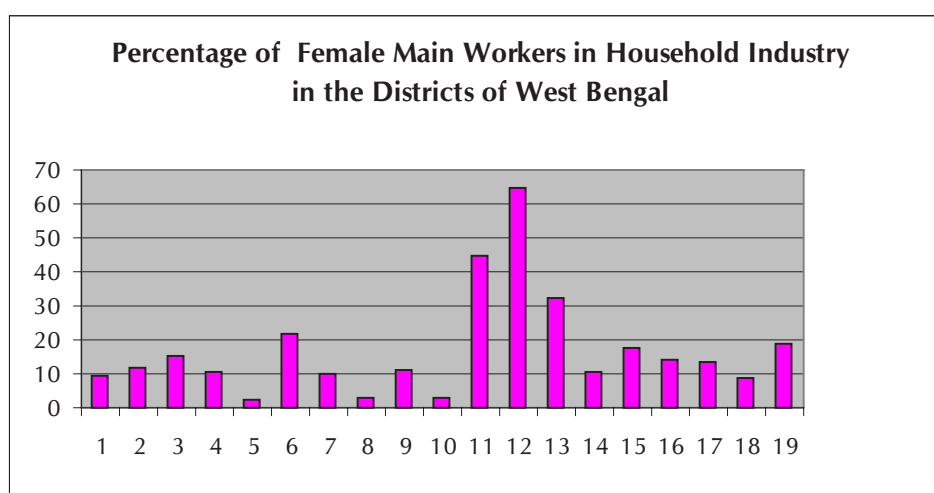
Source: Census, 2001

The percentage of female workers engaged in non-agriculture and non-household activities is as high as 79.03 percent. It appears that a high percentage of female workers in the district earn the livelihood from

such economic activities which are basically non-rural in nature. One should also point out that the percentage of other workers in the female workforce of the district is higher than the comparable percentage among the male main workers of North 24 Parganas.

According to Census 2001, only 10.59 percent of the female main workers of the district find their livelihood in the Household Industries. Among eighteen districts of the state the rank of North 24 Parganas in this regard is 11. Low WPR of the female in this district is partly explained by the fact that the potentiality of household sector as a source of livelihood remain under exploited in North 24 Parganas. The WPR of the female in Malda and in Murshidabad is substantially higher than what we observe in North 24 Parganas¹. A substantial percentage of the female main workers are engaged in other non-agricultural sectors. But then, the WPR of the women remain low because other non-agricultural sectors fail to pull a large percentage of women in the workforce. The potentiality of female SHG in the district should be considered in this background.

Figure 1.3.2: Percentage of Female Main Workers in HHI in the Districts of West Bengal



Districts: 1: Bankura, 2: Bardhaman, 3: Birbhum, 4: Dakshin Dinajpur, 5: Darjeeling, 6: Howrah, 7: Hooghly, 8: Jalpaiguri, 9: Coochbehar, 10: Kolkata, 11: Malda, 12: Murshidabad, 13: Nadia, 14: North 24 Parganas, 15: Medinipur, 16: Purulia, 17: South 24 Parganas, 18: Uttar Dinajpur; 19: West Bengal

Source: Census, 2001

Since the WPR of the women is low in the district and since agricultural and non-agricultural sectors fail to pull a larger percentage of women in the workforce, a relatively under-exploited HHI sector might be the area where the SHG led employment generation programme would find a measure of success in the district. In fact, this is what took place in North 24 Parganas during the first decade of this century when the women SHGs engaged in HHI reported impressive achievements in terms of employment and income generation.

¹ In Murshidabad, 64.54 percent of main workers in the female are engaged in HHI, in Malda the relevant percentage is 44.51.

CHAPTER - 2

Chapter 2

RURAL NORTH 24 PARGANAS : KEY FEATURES

2.1 Introduction:

Rural North 24 Parganas is divided into 22 development blocks covering an area of 3529.99 sq. km. Population of rural North 24 Parganas is 4083339, according to Census 2001. The current population (at 2008) should be 4502265 if the growth rate of population during 1991-2001 is maintained during the next decade. Rural North 24 Parganas has 1582 Census villages of which 10 are uninhabited. On an average, the villages are densely populated. Density per sq. km. in North 24 Parganas rural was 985 in 1991. By 2001, the population density has increased to 1133. With a projected population of 4502265, the density per sq. km. in the district should be 1249 in 2008. Rural North 24 Parganas is more densely populated compared to at least 15 districts of the state. In fact, the density of population in rural North 24 Parganas is higher than the state average. According to Census 2001, the density of population in rural West Bengal is 676 which are lower than that of North 24 Parganas rural by 457 persons per sq. km.

In this chapter, we shall discuss the features of rural North 24 Parganas in terms of a few key indicators. Rural North 24 Parganas can be divided into three distinct zones in terms of socio economic parameters. There are 8 blocks which hold international border with Bangladesh. There are border area related features in varied degree in some areas of these blocks. Again, there are 6 blocks which belong to the riverine area adjacent to the Sunderbans; 2 out of these 6 blocks, Hingalganj and Hasnabad, also have international border with Bangladesh¹. Livelihood pattern and social amenities in these blocks are different from what is observed in other parts (Other Rural Areas) of rural North 24 Parganas. There are blocks such as Barrackpore II in Other Rural Areas (ORA), which have distinct urban features. We shall try to capture the features of these blocks as well in this chapter of the District Human Development Report.

2.2 Population Density and Literacy in Rural North 24 Parganas

Rural Bongaon is the biggest block in terms of population in North 24 Parganas. Deganga is the next largest block where the population according to Census 2001, was 275350 (Table 2.2.1). In terms of population density however, Barasat I is the most densely populated block of the district which is followed by Barrackpore II and Rajarhat. Population density per sq. km. in Barasat I is 2079 which is almost twice the average population density in rural North 24 Parganas. Hingalganj, a block in the Sunderban region is the least densely populated block of the district. In 3 other blocks of the Sunderban region also, the density of population is lower than that of the district average. In the non-Sunderban region, the density of population is the lowest in Bagda, which is a bordering block. In Bongaon, Gaighata and Swarupnagar, 3 other bordering blocks of the district, the population density is near the district average. In Baduria and Basirhat I however, the density of population is higher than the average population density of rural North 24 Parganas. The density of population seems to be quite high in such blocks which are nearer to Kolkata. As the Census data indicate, the density is the lowest in the Sunderban region, the bordering blocks have median level density of population and the blocks belonging to the remaining area of rural North 24 Parganas have higher density of population compared to all other blocks (Table 2.2.2).

¹ In the Border Area Blocks, there are villages distant from Bangladesh Border which do not have the features of Border Area Villages. In Sunderban Blocks also, many villages do not have the feature of Border Area Villages. The sets are therefore overlapping.

Table 2.2.1: Block wise Population Density in North 24 Parganas

Sl. no.	Name of the Block	Population	Area	Population Density	Rank
1	Bagdah	219814	233.47	942	19
2	Bongaon	344044	336.7	1022	18
3	Gaighata	285122	243.3	1172	14
4	Swarupnagar	226608	215.13	1053	17
5	Habra - I	165270	117.36	1408	6
6	Habra - II	134361	112.67	1193	11
7	Amdanga	165792	139.27	1190	12
8	Barrackpore - I	112882	95.44	1183	13
9	Barrackpore - II	80716	40.74	1981	2
10	Barasat - I	218199	104.97	2079	1
11	Barasat - II	169098	114.04	1483	5
12	Deganga	275350	202.09	1363	8
13	Baduria	247638	179.72	1378	7
14	Basirhat - I	147741	111.84	1321	9
15	Basirhat - II	189850	127.42	1490	4
16	Haroa	182522	152.73	1195	10
17	Rajarhat	138652	72.9	1902	3
18	Minakhan	168965	158.82	1064	16
19	Sandeshkhali - I	140476	182.3	771	20
20	Sandeshkhali - II	136318	197.21	691	21
21	Hasnabad	177521	153.07	1160	15
22	Hingalganj	156400	238.8	655	22
23	North 24 Parganas	4083339	3529.99	1157	

Source: District Statistical Handbook, 2006, Census 2001

Analysing the village level (Census 2001) data, we observe that in North 24 Parganas there are 1582 villages out of which 10 are uninhabited². Among the remaining villages there are 11 in which the size of the population is less than 100. On the other hand, there are 15 villages in which the population per village is above 10,000. Out of these 15 villages, three belong to Rajarhat where the block level density of population is as high as 1902. However, there are 2 villages in Swarupnagar and 1 in Bongaon and Gaighata each, where the size of the population in each village is above 10,000 but the block level density of population is not as high as that in Rajarhat. Census data also report that there are 213 villages in North 24 Parganas in which the population per village is in the range of 500-1000. However, more than 50 percent of the villages (53.54) of the district were reported to have population in the range of 1500-5000.

² Names of uninhabited villages: Raghudebpur, Saripota, Khalidpur Chak, Maganpur, Bilbauchandi, Rangra, Chak Swarupnagar, Mahisbathan, Sarabaria, Chor Ramesharpur

The region wise data on population density, as given in Table 2.2.2, indicates that most of the villages in Sunderban region are thinly populated compared to the villages in Border Area (BA) and Other Rural Area (ORA) of the district. About 50 percent of the villages in Sunderban Area have less than 1000 persons per sq. km. In the ORA on the other hand, more than 50 percent of the villages have population density in the range of 1200-2500 per sq. km. In the BA 45.47 percent of the villages were reported to have more than 700 persons per sq. km. In the group of most thinly populated villages (density less than 300) there are 28 villages in North 24 Parganas 11 of which belong to SA region. In the BA, there is 1 village in which the density of population per sq. km. is more than 7000 (Bayarghata (Census code 01658200) village in Swarupnagar block).

Table 2.2.2: Region wise Distribution of Villages According to Population Density

Regions	0-300	300-700	700-1000	1000-1200	1200-1500	1500-2000	2000-2500	2500-4000	4000-7000	7000 & above	Total
BA	10	81	153	113	94	71	37	22	3	1	585
SA	11	96	59	24	37	45	28	29	6	0	335
ORA	7	40	88	87	149	119	78	55	22	7	652
Total*	28	217	300	224	280	235	143	106	31	8	1572

* Excluding 10 uninhabited villages

Note: BA: Border Area, SA: Sunderban Area, ORA: Other Rural Area

Source: Census, 2001

In North 24 Parganas, there are 54 villages in which the number of households is 1500 and above. These villages are distributed over all the blocks of the district, except Amdanga. The number of such big villages is the highest in Swarupnagar where there are 5 such villages. In Gaighata, Basirhat II, Rajarhat and Sandeshkhali II there are four such villages in each of these blocks. In the district, there are 85 villages, according to Census 2001, in which the number of households is less than 100. Haroa, Minakhan and Hasnabad have highest number (9) of such tiny villages. However, such villages are also present in 14 other blocks of the district. A typical village in North 24 Parganas has 500-750 households, according to Census 2001.

Table 2.2.3: Region wise Distribution of Villages According to Number of Households

	< 100	100-200	200-300	300-400	400-500	500-750	750-1000	1000-1500	1500 & above	Total
BA	28	81	98	88	65	109	54	45	17	585
SA	29	49	39	39	43	49	32	40	15	335
ORA	28	90	109	101	89	127	45	41	22	652
Total	85	220	246	228	197	285	131	126	54	1572

* Excluding 10 uninhabited villages

Note: BA: Border Area, SA: Sunderban Area, ORA: Other Rural Area

Source: Census, 2001

In rural North 24 Parganas, there are 103 villages in which the percentage of Scheduled Tribe (ST) and Scheduled Caste (SC) population is more than 90 percent. In fact, there are 12 villages in the district in which the percentage of SC/ST population is 100. Most of the villages are SC dominated villages and according to Census 2001, these are mostly in the BA and the Sunderban Area blocks. In Bagda, for example, more than 50 percent of the villages are SC dominated (percentage of SC > 50). In Hingaljanj, a block in the SA, there are 44 inhabited villages and in 29 out of these 44 villages, the percentage of SC/ST population is above 80.

Table 2.2.4: Region wise Distribution of Villages According to Percentage of SC & ST Population

Regions	< 10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Total
BA	112	76	62	67	70	41	45	41	36	35	585
SA	76	37	23	27	27	23	19	20	33	50	335
ORA	302	117	62	67	35	17	20	6	8	18	652
Total	490	230	147	161	132	81	84	67	77	103	1572

* Excluding 10 uninhabited villages

Note: BA: Border Area, SA: Sunderban Area, ORA: Other Rural Area

Source: Census, 2001

As described in Table 2.2.4, there are 585 villages in the border area blocks. In 198 out of these 585 villages the percentage of SC and ST population is above 50. Percentage wise however, in SA there are more villages in which more than 50 percent of the population belongs to SC and ST. In ORA of the district, the number of villages with predominantly SC & ST population is rather low. In 302 out of 652 villages in ORA the percentage of SC & ST population is less than 10. All together there are 419 villages in ORA in which SC & ST population account for less than 20 percent of the respective village population.

Table 2.2.5: Literacy Rates in the Blocks of North 24 Parganas

Sl. no.	Name of the Block	Literacy Rate	Rank	Literacy Rate (Male)	Rank	Literacy Rate (Female)	Rank
1	Bagdah	66.59	16	74.12	16	58.67	15
2	Bongaon	70.74	9	77.79	10	63.19	10
3	Gaighata	74.85	4	82.16	4	67.11	5
4	Swarupnagar	69.15	12	76.02	12	61.95	11
5	Habra - I	76.63	3	83.65	3	69.10	3
6	Habra - II	73.15	6	79.76	7	66.10	7
7	Amdanga	71.38	8	77.91	8	64.32	8
8	Barrackpore - I	77.70	2	84.42	2	70.43	2
9	Barrackpore - II	79.84	1	85.60	1	73.51	1
10	Barasat - I	72.26	7	77.88	9	66.22	6
11	Barasat - II	68.97	13	75.89	13	61.34	13
12	Deganga	68.34	14	74.88	14	61.42	12
13	Baduria	70.62	10	76.93	11	64.02	9
14	Basirhat - I	62.27	19	69.29	21	54.92	17

Table 2.2.5: Literacy Rates in the Blocks of North 24 Parganas.....Contd.

Sl. no.	Name of the Block	Literacy Rate	Rank	Literacy Rate (Male)	Rank	Literacy Rate (Female)	Rank
15	Basirhat - II	68.03	15	74.65	15	61.06	14
16	Haroa	62.82	18	71.66	18	53.34	19
17	Rajarhat	74.83	5	81.83	5	67.27	4
18	Minakhan	58.65	21	69.25	22	47.23	20
19	Sandeshkhali - I	58.45	22	70.10	20	46.15	22
20	Sandeshkhali - II	59.31	20	71.03	19	46.75	21
21	Hasnabad	63.45	17	72.03	17	54.41	18
22	Hingalganj	70.07	11	81.34	6	58.18	16
	CV	8.91		6.53		12.60	

Source: Census, 2001

The average literacy rate in the district is 78.07 percent according to Census 2001. There is a marked difference in literacy rate between the male and the female. While the literacy rate among the male in the district is 83.92 percent, among the female the relevant rate is 71.72. Inter-block variation in the overall literacy rate is low among the male (CV being 6.53). However, the variation is quite high in the female literacy rate among the blocks in North 24 Parganas. In terms of literacy rate among the male, Barrackpore II and Barrackpore I are ranked first and the second among the 22 blocks of the district. Most backward in terms of male literacy rate is Minakhan, a block in the Sunderban Area. In terms of female literacy rate also, Barrackpore II ranks first and its adjacent block, namely Barrackpore I, follows it. The literacy rate among the female is the lowest in Sandeshkhali I, where 46.15 percent of the female were literate according to Census 2001.

Considering the village level data on the literacy rate between the female and the percentage of SC & ST population in the village, it appears that there exists a negative correlation (Correlation Coefficient being -0.2) between the percentage of SC & ST population and the female literacy rate in the village. It appears that the education deprivation of the women has a relation with the social class/community to which the concerned women belong.

Table 2.2.6: Region wise Literacy Rates in North 24 Parganas

Region	Literacy Rate	Literacy Rate (Male)	Literacy Rate (Female)
BA	69.85	76.87	62.43
SA	62.31	72.62	51.33
ORA	72.23	78.77	65.20
Total	69.07	76.66	60.99

Note: BA: Border Area, SA: Sunderban Area, ORA: Other Rural Area

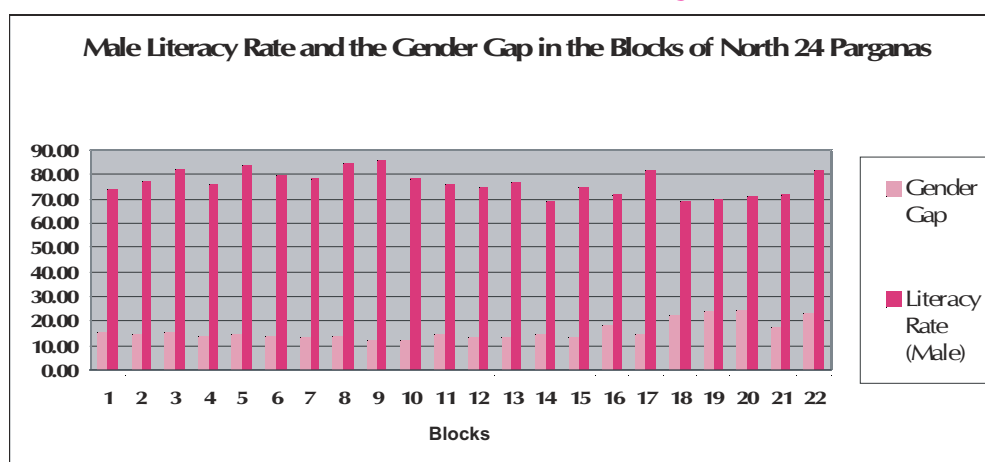
Source: Census, 2001

The region wise break up of the Census data on literacy rates reveals that there is a distinct region wise variation in the literacy rates in the district both for male and female. The literacy rate is the lowest in SA. The highest literacy rate is observed in the ORA. This pattern is observed both for the male and for the

female. The reason might be that the percentage of SC & ST population is the highest in Sunderban region followed by the BA blocks and the negative correlation between the percentage of SC & ST population and the literacy rate does exist in the district.

The other important point to be noted is that the gender gap in literacy rate is quite high in the district. This is true for almost all the blocks of the district (Table 2.2.5). The extent of gender-gap measured the difference in male and the female literacy rates have been presented in Figure 2.2.1. It appears that the gender gap is the highest in Sandeshkhali II followed by Sandeshkhali I and Hingalganj. These are the blocks in the Sunderban Area. The minimum gap was observed in Barasat I where the difference between the male literacy rate and the female literacy rate was 11.66 percentage points. Ranking the blocks in terms of both male and female literacy rates, it was observed that the value of the rank correlation coefficient was as high as 0.91. One may therefore conclude that the difference in male and female literacy rates followed a particular pattern. A district which will rank low in terms of female literacy rate is also expected to rank low in terms of male literacy rate. However, the gender gap widens when the male literacy rate is comparatively low. As the male literacy rate increases, the gender gap decreases (the correlation between the male literacy rate and the gender gap was found to be -0.48).

Figure 2.2.1: Male Literacy Rate and the Gender Gap in Literacy in the Blocks of North 24 Parganas



Note: 1: Bagda, 2: Bongaon, 3: Gaighata, 4: Swarupnagar, 5: Habra-I, 6: Habra-II, 7: Amdanga, 8: Barrackpore-I, 9: Barrackpore-II, 10: Barasat-I, 11: Barasat-II, 12: Deganga, 13: Baduria, 14: Basirhat-I, 15: Basirhat-II, 16: Haroa, 17: Rajarhat, 18: Minakhan, 19: Sandeshkhali-I, 20: Sandeshkhali-II, 21: Hasnabad, 22: Hingalganj

Source: Census, 2001

2.3 Livelihood Pattern in Rural North 24 Parganas

According to Census 2001, the percentage of total workers to total population (i.e., Work Participation Rate) in rural North 24 Parganas is 33.65. As Table 2.3.1 indicates, inter-block variation in WPR is not very high in the district. The WPR varies between 30.33 (Rajarhat) and 39.70 (Hingalganj). For the male population, the variation in WPR is even lower (6.63 percentage points). For the female however, the WPR itself is quite low in the district, as we have observed in Chapter 1 of this report. Analysing the block level data one observes that, inter-block variation in female WPR is quite high. Thus in Amdanga block the female WPR is 5.59 percent only. In Hingalganj block on the other hand, the WPR among the female is as high as 21.25.

The percentage of main worker in the working population is very high in almost all the blocks in the district except in Sandeshkhali II where the percentage of main workers to total workers is as low as 61.76. In Amdanga block where the female WPR is very low, the percentage of main workers in the total workers is as high as 87.14. This is largely due to the fact that 89.99 percent of the male workforce in Amdanga is found to get job for more than 183 days in a year. The percentage of main workers in the working population is also very high in Rajarhat (86.99) and Deganga (86.95). In Barrackpore I, Barrackpore II, Barasat I and Barasat II, the blocks which are adjacent to greater Kolkata, the percentage of main workers to total workers is found to be lower than what is observed in Amdanga or Rajarhat or Deganga.

For the female workforce, the percentage of main workers is the highest (71.17) in Rajarhat; the lowest percentage of main workers in the female workforce was reported in Sandeshkhali II (26.91). The percentage of main workers in the female workforce is as high as 61.11 percent in Gaighata which is quite far off from Kolkata, the metro city. This is quite surprising, given the fact that the percentage of main workers among the female in Barrackpore I and Barrackpore II, the blocks nearer to Kolkata are 61.10 and 61.62 respectively.

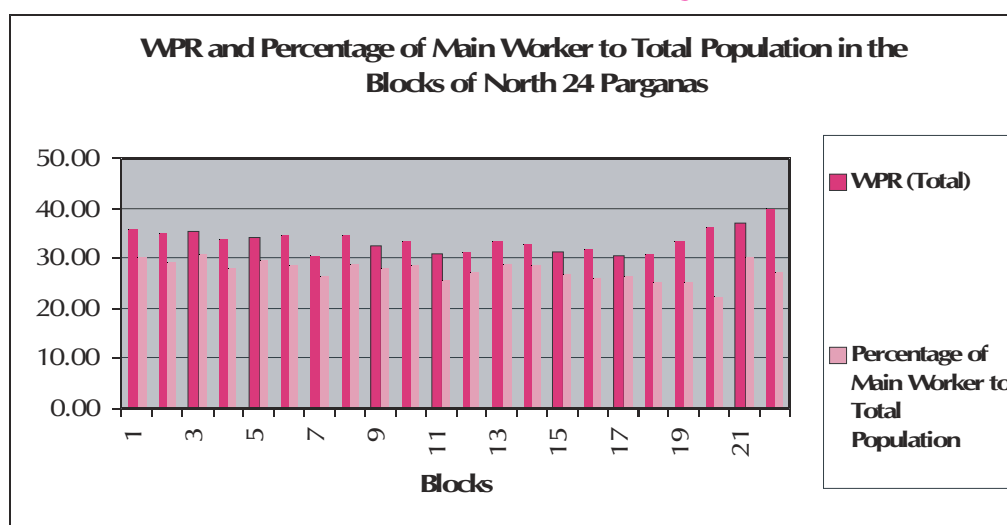
Table 2.3.1: Work Participation Rates in the Blocks of North 24 Parganas

Sl. no.	Name of the Block	Percentage of Total workers (Total)	Rank	Percentage of Total Workers (Male)	Rank	Percentage of Total workers (Female)	Rank
1	Bagdah	35.83	4	55.53	4	15.11	4
2	Bongaon	35.08	6	55.26	7	13.52	7
3	Gaighata	35.54	5	55.91	2	14.00	6
4	Swarupnagar	33.88	10	55.13	9	11.61	10
5	Habra - I	34.32	9	55.34	6	11.79	9
6	Habra - II	34.61	7	55.48	5	12.39	8
7	Amdanga	30.41	21	53.48	14	5.59	22
8	Barrackpore - I	34.37	8	55.91	3	11.19	13
9	Barrackpore - II	32.46	15	53.70	11	9.23	17
10	Barasat - I	33.24	13	53.63	12	11.48	11
11	Barasat - II	30.79	19	51.01	21	8.70	18
12	Deganga	31.18	18	53.23	16	7.99	20
13	Baduria	33.42	12	55.17	8	10.74	14
14	Basirhat - I	32.93	14	53.61	13	11.32	12
15	Basirhat - II	31.38	17	53.08	17	8.60	19
16	Haroa	31.82	16	52.07	18	10.18	15
17	Rajarhat	30.33	22	52.04	19	7.02	21
18	Minakhan	30.70	20	50.59	22	9.49	16
19	Sandeshkhali - I	33.49	11	51.60	20	14.46	5
20	Sandeshkhali - II	36.28	3	53.41	15	18.07	3
21	Hasnabad	37.05	2	54.31	10	18.84	2
22	Hingalganj	39.70	1	57.22	1	21.25	1

Source: Census, 2001

The block wise data on WPR reveals a feature which is not surprising. Among the male, there is a strong positive correlation (0.36) between the rank of the blocks in terms of WPR and the percentage of main workers in the workforce. In the female, the scenario is just the reverse. The correlation coefficient between the rank of the blocks in terms of female WPR and the percentage of main workers in the female workforce is negative (-0.37). The female workforce in the district remains underemployed. If the WPR of the female is found to be high in a block, the possibility is that the female are driven to the workforce largely as marginal workers.

Figure 2.3.1: WPR and Percentage of Main Worker to Total Population in the Blocks of North 24 Parganas



Note: 1: Bagdah, 2: Bongaon, 3: Gaighata, 4: Swarupnagar, 5: Habra-I, 6: Habra-II, 7: Amdanga, 8: Barrackpore-I, 9: Barrackpore-II, 10: Barasat-I, 11: Barasat-II, 12: Deganga, 13: Baduria, 14: Basirhat-I, 15: Basirhat-II, 16: Haroa, 17: Rajarhat, 18: Minakhan, 19: Sandeshkhali-I, 20: Sandeshkhali-II, 21: Hasnabad, 22: HingalGANJ

Source: Census, 2001

In rural North 24 Parganas 45.35 percent of the main workers is engaged in non-agricultural and non-household industry works. As we have already mentioned, the percentage of other workers in North 24 Parganas as a whole is 74.29. In rural North 24 Parganas the percentage of other workers is much lower than the district average primarily because the percentage of urban workforce in the district is quite high and the urban workforce finds the livelihood in non-agricultural activities.

Cultivator and agricultural labourers constitute more than 50 percent of the workforce in Sandeshkhali I, Sandeshkhali II, HingalGANJ, Minakhan and Haroa i.e., in 5 out of 6 blocks in the SA. The scenario is different in Hasnabad, another SA block where cultivators and agricultural labourers account for only about 37 percent of the main workers in the block. In Hasnabad, household industry workers account for 15.34 percent of the main workers there. Considering the Census data, on block level distribution of main workers, one observes that the percentage of household industry workers is the highest in Hasnabad (Table 2.3.2) among all the blocks of the district. The percentage of agricultural labourers is the highest (41.66) in Sandeshkhali II, another SA block.

In the BA blocks, cultivators and agricultural labourers constitute the majority of the main workers. Thus in Bagdah, cultivators and agricultural labourers account for more than 67 percent of the main workers there. The scenario is marginally different in Gaighata where the percentage of cultivators and agricultural labourers is 48.12; household industry workers account for 6.1 percent of the main workers in this block. Other important feature of Gaighata is that 45.69 percent of the main workers there find employment in non-agricultural and non-household industry sectors.

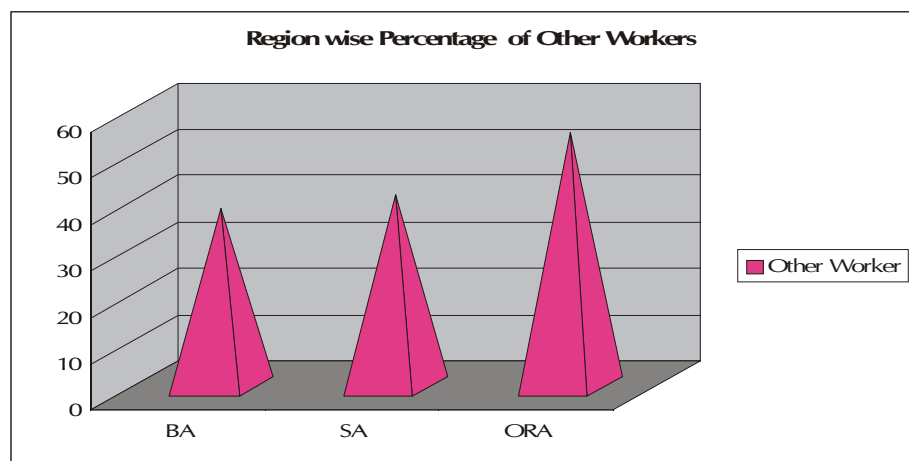
Table 2.3.2: Occupational Category wise Percentage Distribution of Main Workers in the Blocks of North 24 Parganas

NAME	Cultivator	Agricultural Labour	Household Industry Worker	Other Worker
Bagdah	30.84	36.23	3.92	29.01
Bongaon	31.45	30.52	4.16	33.88
Gaighata	21.45	26.77	6.10	45.69
Swarupnagar	31.51	31.53	5.29	31.67
Habra - I	19.19	21.01	7.15	52.64
Habra - II	24.06	26.03	2.91	46.99
Amdanga	29.15	29.28	1.92	39.64
Barrackpore - I	13.61	18.48	2.83	65.08
Barrackpore - II	7.72	4.36	3.07	84.85
Barasat - I	13.61	12.07	4.88	69.44
Barasat - II	20.98	22.91	2.18	53.93
Deganga	27.63	29.03	3.70	39.64
Baduria	28.10	24.86	5.66	41.38
Basirhat - I	18.56	18.99	10.90	51.55
Basirhat - II	20.23	24.33	6.00	49.44
Haroa	22.58	30.11	3.78	43.52
Rajarhat	10.59	15.20	5.33	68.88
Minakhan	21.21	34.76	1.92	42.11
Sandeshkhali - I	18.64	34.74	2.22	44.41
Sandeshkhali - II	25.41	41.66	1.91	31.02
Hasnabad	16.35	20.70	15.34	47.60
Hingaljanj	30.82	27.28	8.69	33.21
Total	23.28	26.20	5.17	45.35

Source: Census, 2001

In ORA blocks, the percentage of other workers is significantly higher than what we observe in BA and SA blocks. In Barrackpore II for example, the percentage of others workers is as high as 84.85. In Barasat I, 69.44 percent of the main workers are engaged as other workers.

(ORA—Other Rural Areas, BA—Border Areas, SA—Sunderban Areas)

Figure 2.3.2: Region wise Percentage of Other Main Workers

Source: Census, 2001

In Rajarhat, the relevant percentage is 68.88. It appears that, agriculture is no longer mainstay of livelihood in the ORA blocks of the district. Household Industry workers also do not account for a significant percentage of the main workforce of these blocks (except in Habra I where 7.15 percent of the workforce is engaged in household industry).

Table 2.3.3: Region wise Distribution of Villages According to Percentage of Other Main Worker

Region	< 30	30-49	50-69	70-89	90-100	Total
BA	280	185	93	26	1	585
SA	138	99	65	26	7	335
ORA	135	249	141	95	32	652
Total	553	533	299	147	40	1572

Since the importance of other workers is quite high in rural North 24 Parganas, we consulted the Census 2001 village level data on the distribution of main workers in various Census industrial categories. The findings are quite instructive. In more than 30 percent of the villages in North 24 Parganas, agriculture or household industry is no longer the major source of livelihood for the main workers there. In 40 out of 1572 villages more than 90 percent of the main workers earn their livelihood from non-agriculture and non-household industries. Some of these villages are fishermen's villages. Thus there is 1 village in Haroa block (Ram Chakir Gheri) in which 100 percent of the main workers are engaged in INDCAT III (Fishing). However, there are villages like Mohanpur in Barrackpore II in which there was 1822 main worker according to Census 2001; 80 out of these 1822 main workers were cultivators, 29 were engaged in household industry, 34 were agricultural labourers and the rest 1679 to be precise, were earning their livelihood as other workers. In ORA, there are 652 villages. In 32 of these villages, the percentage of other workers is above 90. This is not surprising given the fact that many of these villages are near the metro city, Kolkata. However, even in BA and SA one would find a large number of villages in which the percentage of other workers is more than 50 (Table 2.9).

There are 553 villages in which the percentage of other workers was less than 30. Most of these villages were located in BA of the district. In SA blocks also, there are 138 (out of 335 villages) in which the percentage of other workers was below 30. In fact, there are 19 villages in Bongaon and 9 villages in

Bagda in which the percentage of other workers had been less than 10. In rural North 24 Parganas as a whole, the percentage of other workers is still below 50 in as high as 1086 villages (out of 1572 villages) in the district.

2.4 Basic Amenities in the Villages of North 24 Parganas

In rural North 24 Parganas, 79.83 percent of the villages have electricity for domestic use. In some of the blocks, every village has electricity for domestic use. However, such villages are near to the metro city of Kolkata (Barrackpore I and Barrackpore II). One should point out that according to Census 2001, every village in North 24 Parganas adjacent to the metro city of Kolkata does not have electricity for domestic use. For example, Rajarhat which is adjacent to Kolkata does not have electricity for domestic use in about 8 percent of the villages under its jurisdiction. In Barasat II, electricity is available in 95.59 percent of the villages. In Barasat I on the other hand, 85.48 percent of the villages have electricity for domestic use.

Table 2.4.1: Percentage Distribution of Villages According to the Availability of a Select set of Basic Amenities

Blocks	Percentage of Villages with Electricity for Domestic Use	Percentage of Villages with Paved Approach Roads	Percentage of Villages having Primary Schools	Percentage of Villages having Maternity and Child Welfare Centre	Percentage of Villages with Availability of Drinking Water	Region
Bagdah	70.75	96.23	94.34	0.94	100.00	BA
Bongaon	81.88	76.51	91.95	11.41	99.33	BA
Gaighata	91.43	83.81	100.00	20.95	100.00	BA
Swarupnagar	77.27	83.33	98.48	28.79	100.00	BA
Habra-I	98.28	98.28	100.00	3.45	100.00	ORA
Habra-II	94.87	66.67	75.64	25.64	100.00	ORA
Amdanga	88.75	67.50	85.00	3.75	100.00	ORA
Barrackpore-I	100.00	79.07	81.40	13.95	100.00	ORA
Barrackpore-II	100.00	76.19	95.24	28.57	100.00	ORA
Barasat-I	98.77	76.54	91.36	12.35	100.00	ORA
Barasat-II	96.10	94.81	87.01	0.00	100.00	ORA
Deganga	93.52	88.89	88.89	1.85	100.00	ORA
Baduria	86.60	95.88	89.69	29.90	100.00	BA
Basirhat-I	85.48	88.71	82.26	1.61	98.39	BA
Basirhat-II	95.59	95.59	91.18	5.88	97.06	ORA
Haroa	62.22	83.33	67.78	30.00	100.00	SA
Rajarhat	92.11	100.00	94.74	44.74	100.00	ORA
Minakhan	27.03	40.54	70.27	4.05	98.65	SA
Sandeshkhali-I	43.33	63.33	100.00	0.00	100.00	SA
Sandeshkhali-II	20.83	62.50	100.00	91.67	100.00	SA
Hasnabad	65.75	89.04	87.67	4.11	100.00	SA
Hingalganj	25.00	63.64	90.91	15.91	100.00	SA
Rural Average	79.83	81.81	88.49	14.06	99.68	

Note: BA: Border Area, SA: Sunderban Area, ORA: Other Rural Area

Source: Census 2001

Blocks in the SA do not have electricity for domestic use in many of its villages. Thus in Sandeshkhali II, electricity for domestic use is available only in 20.83 percent of the villages. The comparable percentage in Hingalganj is 25 and in Minakhan more than 70 percent of the villages do not have access to electricity for domestic use. As one knows, these villages are mostly in the riverine area of the Sunderbans. The accessibility in these villages being poor these villages are unlikely to get electricity in near future unless the non-conventional energy sources are tapped.

In Bagdah there is no electricity in about 30 percent of the villages. In Bongaon, the adjacent block electricity is not available for domestic purposes in about 20 percent of the villages. The scenario appears to be better in Gaighata, another BA block in which electricity is available in more than 90 percent of the villages. The scenario is worse in Swarupnagar where, electricity for domestic use is not available in 22.73 percent of the villages. In Hasnabad also, a large number of villages do not have electricity for domestic purposes.

The region wise analysis of the relevant data reveals that there is electricity in 45.67 percent of the villages in SA. In BA, the percentage is 82.22. In ORA on the other hand, electricity has reached in more than 95 percent of the villages (Table 2.11). Out of 1572 inhabited villages of the district, there is electricity for domestic use in as many as 1255 villages. There are thus 317 villages in the district where there is no electricity for domestic use, according to Census 2001.

Table 2.4.2: Region wise Distribution of Villages According to the Availability of a Select set of Basic Amenities

Region	Percentage of Villages with Electricity for Domestic Use	Percentage of Villages approached by Paved Roads	Percentage of Villages having Primary Schools	Percentage of Villages having Maternity and Child Welfare Centre	Percentage of Villages with Availability of Drinking Water
BA	82.22	86.67	93.16	15.21	99.66
SA	45.67	69.25	80.90	18.51	99.70
ORA	95.25	83.90	88.19	10.74	99.69
Total	79.83	81.81	88.49	14.06	99.68

Source: Census 2001

BA—Border Area, SA—Sunderban Area, ORA—Other Rural Area

Availability of roads is another important indicator of the condition of the villages in terms of physical infrastructure. In rural North 24 Parganas, there is 3896.8 km. of surfaced road maintained by PWD, and the local body. Length of the unsurfaced roads maintained by the local body is 4040.5 km. The total area of rural North 24 Parganas being 3529.99 sq. km., the surfaced road per sq. km. in the district is 1.10 km. which appears to be quite impressive. In fact, in some of the blocks the length of surfaced road per sq. km. is as high as 3.47 km (Baduria) or 3.24 km. (Basirhat II). In many of the blocks the length of surfaced road per sq. km. is much higher than the length of the unsurfaced road per sq. km. Thus in Habra II, there is 2.55 km. of surfaced road per sq. km., unsurfaced road per sq. km. is only 0.88 km. The scenario is almost similar in Barasat II, Rajarhat and Habra I. Even in Haroa, surfaced road per sq. km. is 2.11km. and the length of the unsurfaced road per sq. km. is only 0.86.

The spread of roads and particularly the spread of surfaced road in the district are uneven over the blocks. Thus in Barasat I, the length of surfaced roads per sq. km. is only 0.89 and that of unsurfaced roads is 0.13. In Swarupnagar and in Minakhan also, the spread of both surfaced and unsurfaced roads appear to be very

poor (Table 2.4.3). A striking revelation in the data related to the roads in the district is that both surfaced and unsurfaced roads per sq. km. is abysmally low in Barrackpore I, a block which is very near to the metro city, Kolkata. The spread of surfaced roads in the Sunderban blocks is also poor. But this is understandable, given that these blocks are situated in the riverine area. One could not therefore be surprised to note that in Hingaljang, surfaced roads per sq. km. is only 0.21 km, the coverage by unsurfaced roads is marginally better—there is 0.39 km. of unsurfaced roads per sq. km. in Hingaljanj. Inter block variation in the ratio of surfaced roads per sq. km. to unsurfaced roads per sq. km. is captured in Figure 2.3.

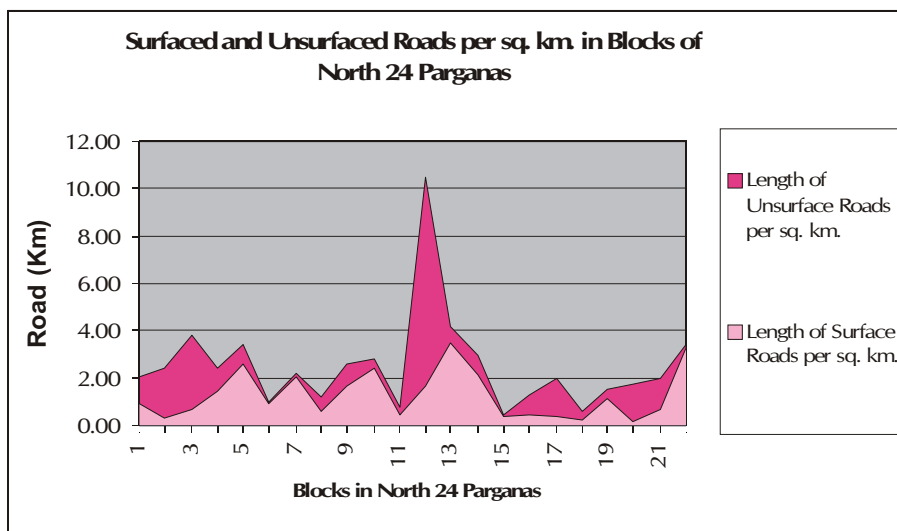
Table 2.4.3: Length of Roads (Km) Maintained by Different Agencies in the Blocks of North 24 Parganas (2005-2006)

Name of the Block	Surfaced	Unsurfaced	Area	Length of Surfaced Roads per sq. km. Maintained by Different Agencies	Length of Unsurfaced Roads per sq. km. Maintained by Different Agencies
Bagdah	204	276	233.47	0.87	1.18
Bongaon	105.4	725	336.7	0.31	2.15
Gaighata	174	749	243.3	0.72	3.08
Habra - I	169	112	117.36	1.44	0.95
Habra - II	287.5	99	112.67	2.55	0.88
Barasat - I	93	13.5	104.97	0.89	0.13
Barasat - II	230	18	114.04	2.02	0.16
Amdanga	83	90	139.27	0.60	0.65
Deganga	331	184	202.09	1.64	0.91
Rajarhat	176	29	72.9	2.41	0.40
Barrackpore - I	45	28	95.44	0.47	0.29
Barrackpore - II	68	360	40.74	1.67	8.84
Baduria	623	134	179.72	3.47	0.75
Haroa	322	131	152.73	2.11	0.86
Minakhan	59.9	10	158.82	0.38	0.06
Swarupnagar	94	190	215.13	0.44	0.88
Hasnabad	56	250	153.07	0.37	1.63
Hingaljanj	49	92	238.8	0.21	0.39
Sandeshkhali - I	207	68	182.3	1.14	0.37
Sandeshkhali - II	27	320	197.21	0.14	1.62
Basirhat - I	80	143	111.84	0.72	1.28
Basirhat - II	413	19	127.42	3.24	0.15
Rural North 24 Parganas	3896.8	4040.5	3529.99	1.10	1.14

Source: District Statistical Handbook, 2006

From the Census 2001, one gets the information on the condition of approach road in each of 1572 villages of the district. The number of villages in which the approach road had been paved was 1286. These villages were distributed unevenly over the blocks. Thus in Rajarhat, each village had paved approach road. The percentage of villages in which the approach roads were paved was as low as 40.54 in Minakhan. Even in Barrackpore I and Barrackpore II paved approach road was not available in about 20 and 25 percent of the villages, respectively. In Barasat II and Baduria about 95 percent of the villages had paved approach roads. The percentage was as high as 98.28 in Habra I and 96.23 in Bagda. On the other hand, in Sandeshkhali I and Sandeshkhali II as also in Hingalganj, about 40 percent of the villages did not have paved approach road.

Figure 2.4.1: Surfaced and Unsurfaced Roads per sq. km. in Blocks of North 24 Parganas



Source: District Statistical Handbook, 2006

Name of the Blocks: 1. Bagdah, 2. Bongaon, 3. Gaighata, 4. Habra – I, 5. Habra – II, 6. Barasat – I, 7. Barasat – II, 8. Amdanga, 9. Deganga, 10. Rajarhat, 11. Barrackpore – I, 12. Barrackpore – II, 13. Baduria, 14. Haroa, 15. Minakhan, 16. Swarupnagar, 17. Hasnabad, 18. Hingalganj, 19. Sandeshkhali – I, 20. Sandeshkhali – II, 21. Basirhat – I, 22. Basirhat - II

Drinking water is available in almost every village of the district. According to Census 2001, drinking water was not available only in 5 villages³ of the district. The quality of the drinking water cannot however be ascertained from the Census data. There is a problem of arsenic contamination in some of the blocks of the district on which we will discuss in details in the Chapter on Public Health and Hygiene.

On the education related infrastructure of the district one may point out that there exists primary schools in 1391 out of 1572 villages. In Gaighata, Habra I, Sandeshkhali I and Sandeshkhali II, primary school infrastructure exists in 100 percent of the villages (Table 2.10). The coverage appears to be poor in Minakhan (70.27 percent), Haroa (67.78 percent) and Habra II (75.64 percent). Even in SA blocks, the spread of primary school infrastructure appears to be quite high. About the quality of the infrastructure, we shall discuss at length in the Chapter on Education.

³ Hinjli (Bongaon), Paikardanga (Basirhat I), Chak Amtona & Kalikapur (Basirhat II), Garabad (Minakhan) are the villages in which drinking water was not available.

Table 2.4.4: Secondary Schools and Colleges in Rural North 24 Parganas

Block	Number of villages having Secondary Schools	Number of Villages Having Colleges at a distance above 5 Km.	Percentage of Villages having Secondary Schools	Percentage of Villages having Colleges at a distance above 5 Km.	Region
Bagdah	10	106	9.43	100.00	BA
Bongaon	22	123	14.77	82.55	BA
Gaighata	15	99	14.29	94.29	BA
Swarupnagar	14	65	21.21	98.48	BA
Habra - I	8	53	13.79	91.38	ORA
Habra - II	11	77	14.10	98.72	ORA
Amdanga	12	70	15.00	87.50	ORA
Barrackpore - I	5	27	11.63	62.79	ORA
Barrackpore - II	3	15	14.29	71.43	ORA
Barasat - I	14	80	17.28	98.77	ORA
Barasat - II	12	66	15.58	85.71	ORA
Deganga	19	105	17.59	97.22	ORA
Baduria	11	84	11.34	86.60	BA
Basirhat - I	12	58	19.35	93.55	BA
Basirhat - II	11	64	16.18	94.12	ORA
Haroa	25	88	27.78	97.78	SA
Rajarhat	8	38	21.05	100.00	ORA
Minakhan	23	66	31.08	89.19	SA
Sandeshkhali - I	0	28	0.00	93.33	SA
Sandeshkhali - II	0	19	0.00	79.17	SA
Hasnabad	0	63	0.00	86.30	SA
Hingaljanj	0	41	0.00	93.18	SA
District	235	1435	14.95	91.28	

Source: Census 2001

There are 235 villages in the district in which there are secondary schools. There are 129 villages⁴ which have seats of higher education (college) within a distance of 5 km. Some of the villages have industrial training schools⁵. In 6 villages of the district there exist training schools, according to Census 2001.

⁴ 1435 villages do not have colleges within 5 km. There are 8 villages for which no information is available. Excluding these villages we get 129, in which college facility is available.

⁵ Jamdani in Gaighata, Chhoto Jagulia in Barasat I, Bera Champa in Deganga and Suria in Habra II.

CHAPTER - 3

Chapter 3

URBAN NORTH 24 PARGANAS : KEY FEATURES

3.1 Introduction

North 24 Parganas is the most urbanized district of West Bengal (except Kolkata which is fully urbanized). The percentage of urban population to total population which measures the level of urbanization is 54.3 in North 24 Parganas. The level of urbanization in Howrah, the next most urbanised district of the state is 50.39. The district is ahead of Howrah by 3.91 percentage points in the context of the spread of urbanisation. The level of urbanisation in West Bengal as a whole is 28.03 percent according to Census 2001. One thus understands that the incidence of urbanisation of the district is non-typical to what is usually observed in other districts of the state. In 2001, 4850947 persons reported to reside in urban North 24 Parganas. By reasonable projection, the current population in the urban part of the district is 5830214. With a landmass of 488.56 sq. km. the density of population in urban North 24 Parganas now, is as high as 11933 per sq. km. In 2001, the population density in urban North 24 Parganas was 9929 per sq. km. By next seven years, the (projected) population density in the urban part of the district increased by 2004 per sq. km.

There are 55 urban units in the district, 27 of which are municipalities (Table 3.1.1). There is one town under Cantonment Board (CB, Barrackpore). 7 areas were marked by Census 2001 as urban Outgrowths (OG) most of which were extensions of old towns by the bank of river Ganga (3 in Kanchrapara, 2 in Bhatpara, one each in Halisahar and Khardaha). According to Census 2001, there were 20 Census Towns (CT)¹ in the district. Between 1991 and 2001 number of municipalities increased by 3 and the number of CTs and OGs declined by 13 and 4 respectively. These were in fact, included in nearby municipalities. In this Chapter, we shall discuss the key features of urban North 24 Parganas. Since the municipalities account for more than 90 percent of the urban population of the district, the urban features of the district will be discussed with reference to these 27 municipalities only. (NA - Notified Area).

Table 3.1.1: Urban Units in the District of North 24 Parganas

Census Year	No. of Urban units					Total
	Municipality	NA	CB	CT	OG	
1991	24	1	1	33	11	70
2001	27*	-	1	20	7	55

Source: Census, 2001

*Newly Formed: Bidhan Nagar Municipality, Rajarhat-Gopalpur Municipality and Madhyamgram Municipality.

3.2 Urban History of the District

Even in pre-British days, there were sprawling urban settlements in the district located in the east bank of Ganga. In fact, the track along Bhagirathi-Hooghly river was populous even in the 16th century. The region now belongs to Barrackpore sub-division which had never suffered from decline in population. The towns in the other part of the district are of recent origin. Many of them emerged as towns only during the days of British Raj when the concept of forming municipalities was introduced by the colonial government.

¹ Census Town: Minimum Population should be 5000, at least 75 percent of the male main workers should remain engaged in non-agricultural pursuits and density of population should be at least 400 per sq. km.

As the concept of forming municipalities was floated by the British Government (Act X of 1842), the urban settlements in 24 Parganas along the eastern bank of river Hooghly which were adjacent to the city of Calcutta were gradually been shaped as municipalities. In 24 Parganas a large number of municipalities were formed on the basis of Act XX of 1856 (Amended in 1868). The earliest municipalities of the district, namely, Naihati, North Barrackpore, Baranagar (now under Kolkata Municipal Corporation), Barasat, Basirhat and Baduria were established in 1869, while North Dum Dum and South Dum Dum had their municipalities established in the following year. Only other settlement in North 24 Parganas which was covered as municipality under 1868 Act was Gobordanga in the old western bank of river Ichamati. Municipalities were then run by the local administration and these were divided in different classes. Following Bengal Municipal Act of 1884 provision for Elected Municipal Commissioners was introduced and all distinctions among different classes of municipalities were abolished. Such a provision is still there in the functioning of the municipalities of the state. The municipalities now a days are however governed by the Bengal Municipal Act 1932 which superceded 1884 Act which by now had become backdated.

Many of these municipalities were rural in character and included much cultivated land. Some of them, particularly, some of the municipalities in Barrackpore subdivision were mostly urban in character, particularly after Jute and other industrial units were coming up along the Bhagirathi Hooghly river. A strong 'urban pull' factor was also operative in this region. This attracted immigrants not only from distant parts of India but also from Western Europe. As a result, the population of Barrackpore sub-division was mostly enhanced by immigration than by natural increase due to net reproduction.

The character of the municipalities changed radically following the partition of Bengal. With influx of people from East Bengal even the rural municipalities gradually lost rural character. Some municipalities such as New Barrackpore Municipality, the Habra Municipality, the Ashoknagar Kalyangarh Municipality had come up in the areas populated by the immigrants from East Bengal. According to *Rehabilitation of Refugees: A Statistical Survey 1955*, State Statistical Bureau the number of immigrants between 1947 – 1955 was 312715 in urban areas of the district. Extrapolating the urban population of the district (which was 571102 in 1941) on the basis of the natural growth rate of urban population of the district between 1931 and 1941, we infer that the percent urbanization of the districts due to immigrants between 1947 –1955 was 21.31².

Several new townships came into existence in the suburbs of Kolkata in North 24 Parganas in the wake of the influx of immigrants. 3 such townships, namely, Laketown, Bangur Colony and Krishnapur Cooperative Housing Colony cropped up within South Dum Dum municipality. These three townships had its genesis in the refugee colonies. Nearby Bangur Colony was also under South Dum Dum Municipality. It was however a purely private venture.

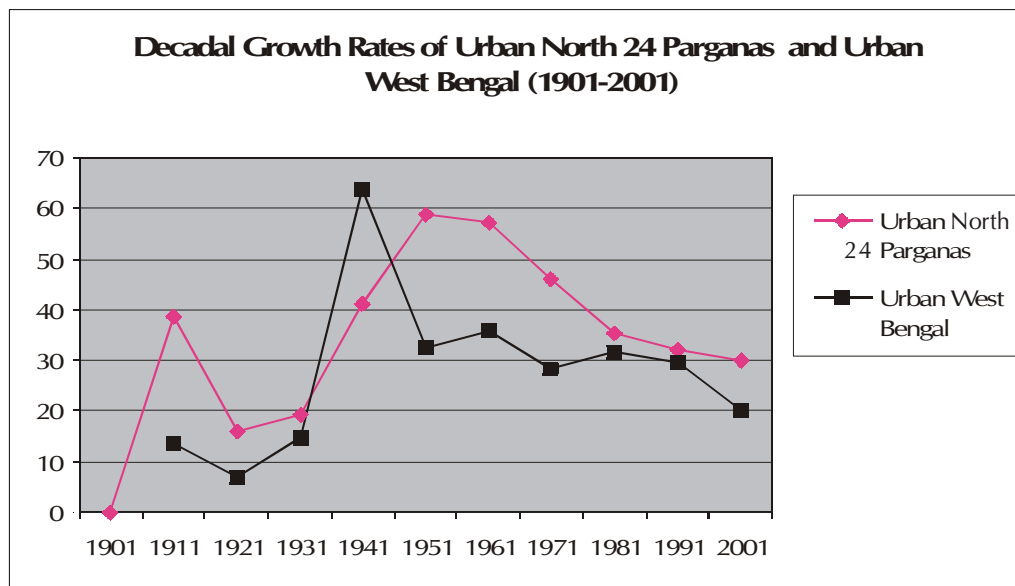
² Rate of Urbanisation due to Immigrants (1947-1955)

Urban population in 1947	728105
Number of Immigrants in Urban Area in 1955	312715
Percent Increase in urban Population Due to immigrants	42.95
Percent Urbanisation due to Immigrants	21.31

The biggest among the new townships was Salt Lake City (now Bidhannagar Municipality). This township came up by reclaiming the marshy land in east of Kolkata. The project was first conceived by the Late Chief Minister Dr. B.C. Roy. About 5 sq. km. area of marshy land was filled up by sand and silt procured by dredging from the bed of river Ganga. The work was done by a Yugoslav firm and the cost incurred was about Rs. 17.00 crores. The reclaimed land was used for urban habitation. 50 percent of the land was used for residential purposes and 23 percent was used for construction of roads and car parks. 12.1 percent of the reclaimed land is still kept as greenery. Although it is now a part of Kolkata, Salt Lake is a Sub-Divisional Head Quarter of North 24 Parganas.

As one considers the urban history of the district, it appears that the decadal growth rates of urban population in North 24 Parganas systematically remained above the corresponding growth rates of urban West Bengal over the entire twentieth century, except during 1931-1941. The decadal growth rate reached the peak (58.87) in 1951 when there was influx of refugees from East Bengal in this district. Since 1951, there was a secular decline in the growth rate of urban population. Even then the growth rates remained above the corresponding growth rates of urban West Bengal as a whole during this period.

Figure 3.2.1: Decadal Growth Rates of Urban North 24 Parganas and Urban West Bengal (1901-2001)



Source: Prepared on the basis of Table 7, pp-T116, Provisional Population Totals, Series 20, West Bengal, 2001

The other important point that should be highlighted is the fact that the level of urbanization of North 24 Parganas remained consistently higher than the state average. This was largely due to the fact that North 24 Parganas started with a higher base since the first Census of the 20th century. It appears that the growth rate of rural population was much lower than the growth rate of urban population in the district in the first three decades of the last century.

Table 3.2.1: Decadal Growth Rates of Urban North 24 Parganas and Urban West Bengal (1901-2001)

Census year	Decadal Growth Rate				Level of	Level of	Percent	Percent
	Urban North 24 Parganas	Urban West Bengal	Total North 24 Parganas	Total West Bengal	Urbanisation (in percent) North 24 Parganas	Urbanisation (in percent) West Bengal	Change in Urbanisation North 24 Parganas	Change in Urbanisation West Bengal
1901	-		-		58.31	12.20		
1911	38.63	13.7	14.78	6.25	51.64	13.05	-6.67	-6.67
1921	15.92	7.16	6.31	-2.91	48.98	14.41	-2.65	4.02
1931	19.15	15.01	9.53	8.4	42.20	15.32	-6.78	-4.13
1941	41.31	63.69	26.07	22.93	46.40	20.41	4.20	10.98
1951	58.87	32.52	23.5	13.22	42.92	23.88	-3.48	-7.68
1961	57.16	35.97	47.94	32.8	45.59	24.45	2.67	6.15
1971	46.03	28.41	34.52	26.87	49.49	24.75	3.90	1.23
1981	35.49	31.73	31.42	23.17	51.02	26.47	1.53	-2.37
1991	32.22	29.49	31.69	24.73	51.23	27.48	0.20	-1.33
2001	30.00	20.20	22.64	17.84	54.30	28.03	3.07	2.87

Source: Prepared on the basis of Table 7, pg-T116, Provisional Population Totals, Series 20, West Bengal, 2001

Even when the growth rate of urban population declined, it remained higher than the growth rate of the rural population. Consequently, the level of urbanization remained high in the district. From 1951 the decadal growth rate in urban North 24 Parganas went on declining consistently over the Census decades. However, as we get from Table 3.2.1, the level of urbanization went on increasing. Increase in the level of urbanization was very low between 1981 and 1991. During the last Census decade there was again a sharp rise in the level of urbanization. Thus in 2001, 54.3 percent of the population of the district was located in its urban segments. The corresponding level of urbanization in West Bengal as a whole was only 28.03 (which was higher than the All India (27.78) level of urbanization). Rapid increase in urbanisation can be attributed to growth of Kolkata metropolis. Barasat is now within greater Kolkata (Kolkata 124). From '91 onwards the real estate business in this district thrived and projects were taken which are more of residential type than business type.

3.3 Demography and Quality of Life in Urban North 24 Parganas Class I Census Towns

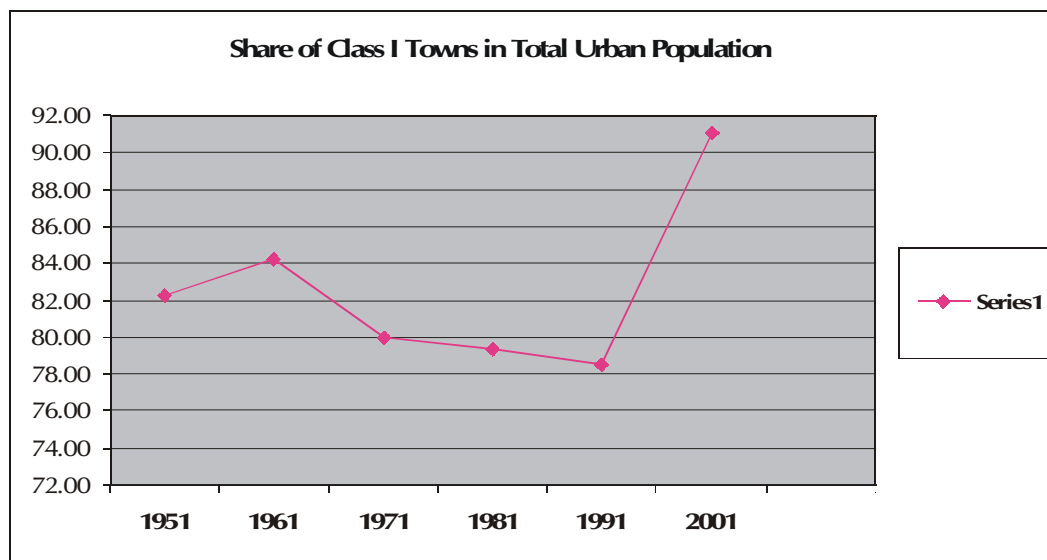
There are 27 municipalities in the district. Out of these, there are 19 Census Class I Towns (CT) (population over 1 lakh). We shall discuss first the demographic behaviour of this CTs. Considering the region wise distribution of these CTs, we club them in 4 groups. In Group A, we have the towns in the eastern bank of the river Hooghly. There are 9 class I CTs in this group³. These are old urban settlements. One of the municipalities is as old as the first Municipal Act of the British Government (1868). In Group B we have taken the other municipalities adjacent to Kolkata. This group includes: DumDum, Baranagar, South DumDum, North DumDum, Rajarhat Goplapur, Bidhannagar. The class I towns nearby the district

³ Kanchrapara, Halisahar, Naihati, Bhatpara, Barrackpore, Titagarh, Khardah, Panihati, Kamarhati,

headquarters constitute our towns in Group C⁴. In Group D we have clustered the other Class I towns in the eastern part of the district, near Bangladesh border (Ashoknagar Kalayangarh, Habra, Bongaon, Bashirhat).

In 1951, there were 987040 persons living in urban 24 Parganas. The demography was heavily tilted in favour of the Census Class I towns. 82.28 percent of the urban population in the district was in Class I CT. The share of the Class I CTs increased between 1951-1961. After that the share declined almost steadily up to 1991. The urban pull factor in the Class I CTs seemed to have weakened over this period. A sharp increase in the share of the Class I town was noticed between 1991-2001. This is largely due to the induction of Out Growths (OGs) and amalgamation of some of the CTs in large municipalities. A steady shift of population from Kolkata Municipal Corporation to Bidhannagar and other municipalities adjacent to Kolkata was also the reason for the sudden jump of the population in Class I towns of the district (Figure 3.3.1).

Figure 3.3.1: Share of Class I Towns in Total Urban Population



Source: District Census Handbook, 24 Parganas District, Census 1981, and Series 23, Part XIII A

Among the Class I towns, the old urban settlements in the eastern bank of river Ganga accounted for 66.63 percent of the population in Class I CT in 1951. Over time the importance of the towns in this group (Group A) declined. By 1961, its share was reduced to 56.88. This was partly due to the settlement of the migrants in Group B, Group C and Group D towns: the migrants could not settle in Group A towns of the district in high numbers largely because these municipalities were already congested and the possibility of finding vacant places at no cost or at low cost was rather remote in the Group A Class I CTs. Intra-class distribution of population in Census Class I towns remained almost unchanged up to 1981. After that the share of Group A towns declined further (52.24 percent). The gain was distributed almost equally among other Class I towns. The scenario was different in 2001. According to Census 2001, the share of the Group A towns in urban population of the Class I towns of the district declined further. The towns in this group were now accounting for 46.36 percent of the population in Class I towns. The gain this time was mostly in the towns in Group B (which includes Bidhannagar Municipality). The towns in other groups also gained. The gain however was marginal in nature.

⁴ Madhyamgram, Barasat, North Barrackpore

Table 3.3.1: Population in Class I Towns of North 24 Parganas

Census Class I Towns Population	1951	1961	1971	1981	1991	2001	2008 Projected
Group A	541113	714251	973740	1289129	1530462	2046260	2567501.8
Group B	164675	277302	406420	563806	748606	1404179	1556116.4
Group C	48200	104447	150606	199258	272518	510547	825637.27
Group D	58187	159741	207735	280535	377950	454490	517115.22
Total Class I CT	812175	1255741	1738501	2332728	2929536	4415476	5466371
Total Urban	987040	1490638	2172831	2938823	3730300	4850947	5830213

Source: District Census Handbook, 24 Parganas District, Census 1981, Series 23, Part XIII A

Municipalities in the District

There are 27 municipalities in the district. 3 of these towns are Census Class III (population 20,000-less than 50,000) towns. There are 2 towns in the district which belong to the category of Census Class II town (population 50,000-less than 1 lakh). The others are Census Class I towns. In terms of area Rajarhat Gopalpur, a newly constituted municipality is the biggest (34.97 sq. km.) and the smallest one is Titagarh (3.24 sq. km.). In terms of population Bhatpara is the biggest municipality. Taki, an old Class III town is the smallest in terms of population. Titagarh is the most densely populated municipal town in the district (density 38333 per sq. km.). South Dum Dum, Baranagar and Kamarhati are the other municipalities in which the density per sq. km. is also very high. Baduria, a Class III town is the town in which the density of population per sq. km. is the lowest. The demographic balance in all the municipalities is tilted against the women. Titagarh, a densely populated industrial town is the municipality in which the number of women per thousand men is as low as 759. One should mention that New Barrackpore is the municipality in which the sex ratio is 991 (Table 3.3.2). This appears to be the municipality in which the female population is near to the natural proportion.

Table 3.3.2: Population Density and other Features of Municipalities in North 24 Parganas

Sr. No.	Name	Size Class of Town	Area in Square Km	Population (2001)	Decadal Growth rate (1991-2001)	Density per sq. km. (2001)	Sex Ratio (No. of Females per Thousand Males) (2001)
1	Ashoknagar Kalyangarh	I	18.44	111475	15.22	6045	979
2	Baduria	III	22.43	47418	13.54	2114	955
3	Bongaon	I	15.57	102115	28.33	6558	945
4	Baranagar	I	7.12	250615	11.47	35199	889
5	Barasat	I	31.41	231515	125.52	7371	956
6	Barrackpore	I	10.61	144331	8.3	13603	892
7	Basirhat	I	22.01	113120	11.55	5139	955
8	Bhatpara	I	28.55	441956	44.93	15480	818

Table 3.3.2 Contd.

Sr. No.	Name	Size Class of Town	Area in Square Km	Population (2001)	Decadal Growth rate (1991-2001)	Density per sq. km. (2001)	Sex Ratio (No. of Females per Thousand Males) (2001)
9	Bidhannagar	I	33.5	167848	67.77	5010	970
10	Dum Dum	I	8.81	101319	147.35	11500	916
11	Garulia	II	5.38	76309	-5.7	14184	880
12	Gobardanga	III	10.36	41618	15.8	4017	970
13	Habra	I	22.68	127695	27.41	5630	957
14	Halisahar	I	8.28	124479	9.17	15034	854
15	Kamarhati	I	10.96	314334	17.78	28680	864
16	Kanchrapara	I	9.07	126118	25.87	13905	934
17	Khardaha	I	6.87	116252	31.57	16922	898
18	Madhyamgram*	I	21.32	155503	-	7294	951
19	Naihati	I	11.55	215432	62.34	18652	895
20	New Barrackpore	II	17.17	83183	30.39	4845	991
21	North Barackpore	I	9.46	123523	22.78	13507	935
22	North Dum Dum	I	26.45	220032	46.72	8319	949
23	Panihati	I	19.4	348379	26.23	17958	935
24	Rajarhat- Gopalpur*	I	34.97	271781	-	7772	939
25	South Dum Dum	I	13.54	392150	68.44	28962	959
26	Taki	III	15.54	37302	22.62	2400	895
27	Titagarh	I	3.24	124198	8.86	38333	759
North 24 Parganas Urban		---	444.69	4610000	---	13341	906

* Newly formed

Source: Census, 2001

Dum Dum appears to be the fastest growing municipality of the district (decadal growth rate 147.35 percent). The next is the Barasat municipality where the decadal growth rate of the population is 125.52 percent. Many of the old urban settlements are now growing at a very low rate. Thus Halisahar, an old town in the western part of the district is now growing at the rate of 9.19 percent per decade. In terms of growth rate of population Garulia is a decaying town. The population of Garulia declined by 5.7 percent over the last Census decade. The scenario however is different in nearby Naihati where the decadal growth rate is 62.34 percent.

According to the findings of the Urban Household Survey (UHS)⁵, SUDA, 2006, a high percentage of the households under Ashoknagar Kalyangarh and Baduria municipalities live in *Kuccha* houses (Table 3.3.3). In fact, *Kuccha* and partly constructed houses account for 49 percent of the dwelling places of the residents of the Ashoknagar Kalyangarh municipality. In Baduria, the percentage is even higher. In fact in Baduria

⁵ The survey covered all the households in 27 municipalities of the district.

only 29.35 percent of the households live in constructed houses. The incidence of having *Kuccha* houses as dwelling places is also very high in Taki (24.44 percent), Habra (32.20 percent) and New Barrackpore (20.06 percent). A high percentage of people live in partly constructed houses in Titagarh (43.45). In Naihati (33.28) and Halisahar (35.07) also a substantive number of households live in partly constructed houses. The percentage of households living in constructed houses appears to be the highest in Baranagar (77.82 percent). In Khardaha 73.27 percent of the households were living in constructed houses. In no urban settlement however, all the households were found to live under fully constructed structure. In this context one might mention the case of Bidhannagar where the percentage of fully constructed structure was 67.95. Admittedly, the percentage of cases in which the information was not available was as high as 9.65 in case of Bidhannagar. Even then, the scenario does not appear to be promising with respect to a municipality which is usually perceived as a better municipality in terms of the condition of living.

Table 3.3.3: Distribution of Types of Houses in Urban Areas of North 24 Parganas

	Name of the Municipality	Constructed	Partly Constructed	Kuchha	Others
1	Ashok Nagar- Kalayangarh	50.42	24.47	24.04	0.88
2	Baduria	29.35	41.88	24.69	3.51
3	Baranagar	77.82	16.32	3.94	0.44
4	Barasat	55.82	28.73	14.50	0.75
5	Barrackpore	59.40	30.44	8.54	0.39
6	Bashirhat	50.14	34.43	13.80	1.57
7	Bhatpara	49.89	41.12	7.09	1.20
8	Bidhannagar	67.95	11.23	9.19	1.99
9	Bongaon	54.86	28.01	13.54	2.36
10	DumDum	69.74	17.66	9.70	0.53
11	Garulia	57.20	33.10	8.32	0.27
12	Gobardanga	39.48	31.58	18.33	10.19
13	Habra	38.06	27.76	32.20	0.80
14	Halisahar	48.18	35.07	13.51	0.60
15	Kamarhati	61.07	28.34	8.58	0.56
16	Kanchrapara	65.52	20.69	11.61	0.72
17	Khardah	73.27	20.47	5.14	0.15
18	Madhyamgram	53.34	27.96	16.84	0.48
19	Naihati	54.44	33.28	10.62	0.39
20	New Barrackpore	59.15	18.54	20.06	0.30
21	North Barrackpore	66.68	23.37	8.16	0.33
22	North Dum Dum	53.89	27.31	16.95	0.84
23	Panihati	56.31	29.77	12.26	0.43
24	Rajarhat Gopalpur	52.79	27.22	16.70	1.26
25	South Dum Dum	67.42	20.78	9.67	0.27
26	Taki	40.95	30.82	24.44	3.14
27	Titagarh	47.60	43.45	7.28	0.33

Note: Row sum is not equal to 100 as data was not available with respect to every municipality, highest percentage of default was in case of Bidhanagar municipality (9.65 percent).

Source: Urban Household Survey (UHS), 2006, SUDA

One important feature of the households in the municipalities of the district is that the large majority of households owned the land on which the dwelling places were situated. The only exception was Titagarh, a working class dominated municipality in which the residents were largely *thika* tenants or were living in factory coolie lines. Only 36.34 percent of the households in Titagarh owned the land in which their dwelling places were situated. In old urban settlements of the district by the side of river Hooghly, the percentage of households with own land was more than 50 percent in every municipality. In Naihati, the percentage was 70.11. In Panihati it was as high as 75.04. In the municipalities in the eastern part of the district, the households with own land was also very high. In Baduria 91.79 percent of the urban households were living in houses constructed on their own lands. In Basirhat the percentage of households with own land was as high as 86.92. Some of the households were of course found to live in houses constructed on encroached land. In Taki, the percentage of such households was as high as 10.47 (Table 3.3.4). In Bongaon, such temporary settlements accounted for the dwelling places of 7.71 percent of the urban households. In the decaying town of Garulia also the percentage was very high (9.91). The percentage of this type of households was phenomenally low in Dum Dum (1.79 percent) and Panihati (1.93 percent). Many of the households were living in rented houses. It appears that the percentage of such households is the highest in Titagarh (55.51). In Kanchrapara and in Bhatpara also a substantive number of households were living in rented houses during the time of the survey. With respect to Bidhanagar municipality, the relevant percentage is 26.60. One should however mention that the percentage of non-availability of information is as high as 13.90 in case of this municipality.

Table 3.3.4: Percentage Distribution of Households with Different Types of land Ownership

Sl.	Name of the Municipality	Percentage of Households with Own Land	Percentage of Households with Encroached Land	Others
1	Ashok Nagar- Kalayangarh	87.95	2.94	8.77
2	Baduria	91.79	3.00	3.77
3	Baranagar	64.79	3.75	28.92
4	Barasat	78.68	3.25	17.79
5	Barrackpore	66.19	3.27	25.30
6	Bashirhat	86.92	3.86	7.38
7	Bhatpara	58.13	3.53	36.54
8	Bidhannagar	53.69	5.81	26.60
9	Bongaon	76.75	7.71	12.06
10	Dum Dum	65.69	1.79	27.32
11	Garulia	56.20	9.91	30.31
12	Gobardanga	84.79	5.11	9.45
13	Habra	82.30	4.78	10.62
14	Halisahar	58.62	4.10	32.11
15	Kamarhati	60.86	6.76	28.53
16	Kanchrapara	57.74	7.70	30.25

Table 3.3.4 Contd.

Sl.	Name of the Municipality	Percentage of Households with Own Land	Percentage of Households with Encroached Land	Others
17	Khardah	80.16	2.99	14.22
18	Madhyamgram	73.10	5.01	15.89
19	Naihati	70.11	2.36	23.37
20	New Barrackpore	71.40	5.39	17.41
21	North Barrackpore	73.85	2.68	17.73
22	North Dum Dum	76.34	2.90	17.69
23	Panihati	75.04	1.93	20.50
24	Rajarhat Gopalpur	60.52	3.60	30.07
25	South Dum Dum	65.39	6.26	20.95
26	Taki	77.23	10.47	9.28
27	Titagarh	36.34	4.34	55.51

Note: Row sum is not equal to 100 as data was not available with respect to every municipality, highest percentage of default was in case of Bidhanagar municipality (13.90 percent).

Source: Urban Household Survey (UHS), 2006, SUDA

About the basic amenities, the results of the urban household survey indicate that the percentage of households having electricity was quite high in every municipality. This is only expected because electricity is one of the basic amenities which are normally found to exist in urban settlements. A disquieting feature in the municipalities of North 24 Parganas is that there is not a single municipality in the district in which all the households have electricity facility. In fact, in some of the municipalities the percentage of households deprived of electricity facility is substantially high. Thus in Baduria, 52.3 percent of the households did not have electricity facility in 2006, the year of the survey. In Taki, about 40 percent of the households within a municipality did not have electricity connection in their premises. Even in Bidhanagar, one of the leading municipalities of the district the percentage of households having electricity connection was only 77.3 (There was no data with respect to 12.96 percent of the households).

Many of the urban households in the municipalities of the district were found to share latrine with other households (or did not have any latrine at all). The percentage was as high as 28.55 in Bhatpara (Table 3.3.5). In Titagarh, a working class dominated municipality where a high percentage of households were living in slums, the percentage of households having own latrine was only 62.23. Even in Halisahar and Kamarhati, two old urban settlements of the district about one fourth of the households were deprived of owning the own latrine. In Bidhanagar 20.48 percent of the households did not have own latrine (the percentage of non availability of data was only 1.24 in this case). In New Barrackpore, a municipality which appears to be less urban compared to Bidhanagar municipality the percentage of households having own latrine is as high as 91.39 (the percentage of non reporting is 1.85 only). Even in Habra, 90.03 percent of the households do not share latrine with others. The highest percentage of households having own latrine is in North Dum Dum municipality where 93.39 percent of the households have their own latrine.

Table 3.3.5: Percentage Distribution of Households According to Certain Basic Facilities

Sl.	Name of the Municipality	Percentage of Households having Electricity	Percentage of Households having Own Latrine
1	Ashok Nagar- Kalayangarh	68.49	82.09
2	Baduria	47.70	79.74
3	Baranagar	86.42	82.78
4	Barasat	78.17	87.41
5	Barrackpore	90.97	85.62
6	Bashirhat	74.27	87.50
7	Bhatpara	80.97	71.45
8	Bidhannagar	77.30	78.21
9	Bongaon	81.95	86.21
10	DumDum	93.36	89.19
11	Garulia	87.49	76.04
12	Gobardanga	68.61	83.77
13	Habra	74.94	90.03
14	Halisahar	78.77	76.28
15	Kamarhati	90.01	75.79
16	Kanchrapara	83.76	82.83
17	Khardah	87.04	86.90
18	Madhyamgram	86.65	87.58
19	Naihati	90.55	86.35
20	New Barrackpore	93.36	91.39
21	North Barrackpore	89.60	82.49
22	North Dum Dum	92.21	93.39
23	Panihati	94.47	92.57
24	Rajarhat Gopalpur	89.55	89.56
25	South Dum Dum	92.61	87.17
26	Taki	60.35	75.20
27	Titagarh	84.93	62.23

Source: Urban Household Survey (UHS), 2006, SUDA

In many of the municipalities quite a large number of households do not have the sources of drinking water within the premises. Thus, in Basirhat only 15.81 percent of the

Table 3.3.6: Distribution of the Percentage of Households with Various types of Drinking Water Facilities in Urban North 24 Parganas

	Name of the Municipality	Drinking Water Within Premises	Access to Tap Water (Public)	Access to Tube Well (Public)	Other Sources of Drinking Water
1	Ashok Nagar- Kalayangarh	44.91	34.86	18.04	2.06
2	Baduria	26.16	5.49	66.31	1.31
3	Baranagar	70.60	23.70	1.24	3.16
4	Barasat	81.77	9.04	7.66	1.38
5	Barrackpore	79.94	13.71	2.68	1.51
6	Bashirhat	15.81	33.26	48.86	0.85
7	Bhatpara	43.27	42.72	12.07	1.50
8	Bidhannagar	65.15	20.64	3.23	1.34
9	Bongaon	52.36	10.03	35.82	0.56
10	DumDum	84.25	10.74	1.95	0.60
11	Garulia	74.44	22.33	1.55	0.51
12	Gobardanga	31.96	35.69	27.09	4.94
13	Habra	64.06	21.93	8.57	3.20
14	Halisahar	54.65	37.32	2.56	2.81
15	Kamarhati	74.28	20.43	1.30	2.27
16	Kanchrapara	74.09	17.18	7.13	0.40
17	Khardah	79.86	17.00	1.99	0.36
18	Madhyamgram	80.04	12.91	4.54	0.89
19	Naihati	66.05	29.90	1.85	0.70
20	New Barrackpore	84.70	2.63	7.40	2.30
21	North Barrackpore	82.04	11.65	3.94	0.40
22	North Dum Dum	72.21	15.42	9.67	1.45
23	Panihati	71.63	22.83	3.40	0.77
24	Rajarhat Gopalpur	72.14	5.97	18.09	1.48
25	South Dum Dum	69.87	21.74	4.32	2.49
26	Taki	26.99	59.51	11.34	0.49
27	Titagarh	56.47	40.10	1.89	0.24

Note: Row sum is not equal to 100 as data was not available with respect to every municipality; highest percentage of default was in case of Bidhanagar municipality (9.64 percent).

Source: Urban Household Survey (UHS), 2006, SUDA

households have sources of drinking water within the premises. Public tube-well outside the premises appears to be the major source of drinking water for the households in Basirhat municipality. In Bongaon, also, a high percentage (35.82) of households depends on public tube-well for drinking water. In Gobordanga also, only 31.96 percent of the households had the drinking water sources within the premises. In the old municipalities adjacent to Kolkata the percentage of households having the sources of drinking water

within the premises is usually quite high however, the findings of the UHS indicate that in Bhatpara about 57 percent of the households did not have the sources of drinking water within their premises.

The literacy rate in urban North 24 Parganas is 85.31 percent. Among 27 municipalities of the district the highest literacy rate is in New Barrackpore, where 94.37 percent of the population is reported to be literate. In North Barrackpore, North Dum Dum and South Dum Dum the literacy rates are 90.45 percent, 89.83 percent and 89.75 percent respectively.

Table 3.3.7: Literacy Rates in Urban North 24 Parganas

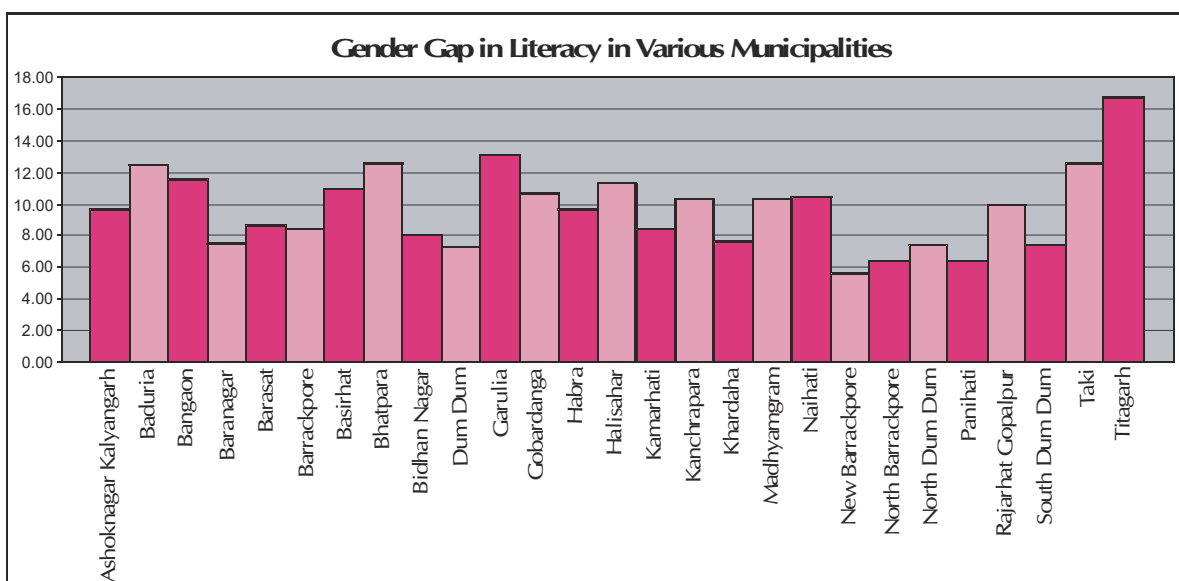
Sl. No.	Name of the Municipality	Literacy Rate	Rank*	Literacy Rate (Male)	Rank*	Literacy Rate (Female)	Rank*
1	Ashoknagar Kalyangarh	88.21	9	92.98	9	83.33	9
2	Baduria	76.14	25	82.22	25	69.72	25
3	Bongaon	84.16	17	89.80	17	78.18	19
4	Baranagar	88.80	8	92.34	8	84.81	8
5	Barasat	84.74	14	89.01	14	80.27	15
6	Barrackpore	86.51	12	90.49	12	82.03	10
7	Basirhat	81.85	21	87.18	21	76.25	21
8	Bhatpara	78.91	24	84.54	24	71.93	24
9	Bidhan Nagar	84.68	15	88.67	15	80.58	14
10	Dum Dum	89.36	7	92.84	7	85.55	7
11	Garulia	79.76	23	85.89	23	72.75	23
12	Gobardanga	87.28	10	92.57	10	81.81	11
13	Habra	86.34	13	91.05	13	81.41	13
14	Halisahar	82.86	20	88.06	20	76.71	20
15	Kamarhati	83.63	19	87.52	19	79.09	17
16	Kanchrapara	87.09	11	92.05	11	81.76	12
17	Khardaha	89.70	5	93.33	5	85.68	6
18	Madhyamgram	83.88	18	88.93	18	78.55	18
19	Naihati	81.40	22	86.35	22	75.88	22
20	New Barrackpore	94.37	1	97.18	1	91.54	1
21	North Barrackpore	90.45	2	93.55	2	87.13	2
22	North Dum Dum	89.83	3	93.42	3	86.03	4
23	Panihati	89.51	6	92.60	6	86.19	3
24	Rajarhat Gopalpur	84.31	16	89.12	16	79.17	16
25	South Dum Dum	89.75	4	93.40	4	85.95	5
26	Taki	75.44	26	81.26	26	68.68	26
27	Titagarh	73.37	27	80.49	27	63.77	27
North 24 Parganas Urban		85.31	—	89.64	—	80.54	—

*: Rank in decreasing order

Source: Census, 2001

However, there are a considerable number of municipalities in which the literacy rates are less than 80 percent. Thus, in Titagarh, the literacy rate is only 73.37 percent (Table 3.3.7). In Bhatpara also, the literacy rate is below 80 percent (78.91 percent). According to Census 2001, the literacy rate in Bidhannagar municipality is below the average rate of literacy in urban North 24 Parganas. In fact, among 27 municipalities of the district Bidhannagar ranks 15th in terms of literacy rate. The literacy rate is low in Taki (75.44 percent) and Baduria (76.14 percent). However, in Gobordanga and Habra the literacy rates are 87.28 percent and 86.34 percent respectively.

Figure 3.3.2: Gender Gap with respect to Literacy in Various Municipalities of North 24 Parganas



Source: Census, 2001

The literacy rate among the male is consistently higher than that of the female in every municipality of the district. Among the municipalities in the eastern part of the district, the gender gap in literacy rate is found to be very high in Taki and Baduria. The scenario is hardly different in some of the municipalities in the western part of the district as well. Thus in Titagarh, the female literacy rate is 63.77 percent while the literacy rate among the male is 80.49 percent in this municipality. In Bhatpara, Garulia and Kanchrapara also the gender gap in education appears to be quite high (Table 3.3.7).

Table 3.3.8: Slum Population, Slum Children and Literacy Rates in Slum

Name of the Municipality	Percentage of Slum Population to Total Population	Percentage of 0-6 Non slum Population to Non Slum population	Percentage of 0-6 Slum Population to Slum population	Literacy Rate (Non Slum)	Literacy Rate (Slum)	Female Literacy (Non Slum)	Female Literacy (Slum)
Kanchrapara	11.28	7.33	9.16	89.03	80.34	83.98	73.21
Halisahar	15.05	9.65	9.11	83.74	84.88	78.05	79.35
Habra	15.60	9.46	10.79	88.05	80.95	83.75	75.13
Bongaon	14.53	9.69	10.40	84.32	83.62	73.56	77.32
Ashoknagar-Kalyangarh	23.39	8.65	9.09	87.61	83.95	80.98	79.95
Garulia	61.82	7.47	11.01	88.87	76.13	85.00	66.71
Barasat	15.52	9.41	11.77	86.76	76.53	84.36	70.39
North Barrackpore	11.15	7.32	7.50	92.01	83.21	89.27	76.20
Barrackpore	3.76	7.81	13.03	88.30	65.96	84.05	58.00
Titagarh	78.96	8.18	10.12	74.45	73.56	63.78	64.30
Khardah	29.51	8.85	6.30	90.37	82.96	88.08	76.59
Panihati	26.85	7.87	9.10	91.67	84.5	88.82	79.86
New Barrackpore	23.88	7.14	8.29	95.08	92.09	92.51	88.35
Kamarhati	1.15	8.86	11.31	84.20	83.81	79.83	77.71
Baranagar	22.34	7.28	9.78	92.21	79.85	89.09	73.52
North Dumdum	1.21	8.60	12.36	90.34	54.44	86.65	46.21
South Dumdum	24.88	7.89	8.23	90.68	89.34	87.08	84.94
Bidhan Nagar	29.30	7.64	11.69	93.13	64.54	90.79	56.94
Rajarhat Gopalpur	9.13	9.93	12.08	86.37	70.99	81.58	62.72

Source: Provisional Population Totals, Series – 20, West Bengal

According to Census 2001, there are 19 municipalities in the district in which there are urban slums⁶ in varying degrees. Total population in these 19 municipalities was 3456332, according to Census 2001. The residents of the slums accounted for 19.55 percent of the total population of these municipalities.

⁶ In India, 'Slums have been defined under Section 3 of the Slums Area (Improvement and Clearance) Act, 1956. As areas where buildings-

- are in any respect unfit for human habitation;
- are by reason of dilapidation, overcrowding, faulty arrangement and design of such buildings, narrowness or faulty arrangements of streets, lack of ventilation, light, sanitation facilities or any combination of these factors which are detrimental to safety, health and morals. (Provisional Population Totals, Series – 20, West Bengal, pp-A-67). Census 2001, also identifies a slum area as follows: A compact area of at least 300 population or about 610-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities

The percentage of slum population was as high as 61.82 in Garulia. In Titagarh, the percentage was even higher (78.96 percent). In Khardaha, Panihati, New Barrackpore, Baranagar, South Dum Dum and even Bidhan Nagar, a substantive percentage of population was residents of slums. In Bidhan Nagar the percentage of slum population was 29.3 and in Khardaha it was 29.51 percent. Slums appear to be largely confined to the municipalities of the western part of the district. However, in Habra, Bongaon and Ashoknagar, three municipalities in the eastern part of the district, the percentage of slum population had been 15.6, 14.53 and 23.39 respectively. One important feature of the urban slum is that the percentage of children (population in 0-6 age group) is consistently higher in the slums than in non-slum. Only exception was Khardaha where the percentage of children in the slums was lower than that in the non-slum part of the municipality (Table 3.3.8) (In Halisahar, the percentage of children in slum was marginally lower than that in the non slum part of the municipality).

The literacy rate in the slums was generally lower than that in non-slum part of the respective municipalities. In Titagarh, however, the rates were quite close to each other. Lest one gets a wrong impression about the spread of literacy in Titagarh, we should mention that both the rates were very low compared to the average literacy rate of urban North 24 Parganas. The gap between slum and non-slum with respect to the literacy rate was very high in Bidhan Nagar where the literacy rate in non-slum area was as high as 93.13 percent and that in slum area was just 64.54 percent. Female literacy rate in slums is usually lower than that in non-slum area of the municipalities. In Garulia for example, the female literacy rate in non-slum is 85 percent; in the slum the rate was 66.71 percent. In Barrackpore, the difference was larger (85.05 percent in non-slum and 58 percent in slum). The highest difference was however observed in North Dum Dum where the literacy rate among the female in the slums were 46.21 percent and the female literacy rate in the non-slum was as high as 86.65 percent (Table 3.3.8).

According to Census 2001, the Work Participation Rate (WPR) in urban North 24 Parganas is 33.27 percent which is marginally lower than that in its rural counterpart (33.65). Among the male the WPR is 53.82 percent and among the female it is 10.73 percent. Both the rates are lower than what are observed in rural North 24 Parganas. Among 27 municipalities WPR is the lowest in Kachrapara (28.50) and the highest is in Bidhan Nagar (38.29). Among the male workers WPR is the highest in Baranagar (58.24) and lowest is in Kachrapara where the percentage of total workers among the male is only 47.96. The WPR among the female is the lowest in Bhatpara (5.71 percent) and the highest in Bidhannagar (19.72)⁷. According to Census 2001, the female WPR is 15.55 percent in South Dum Dum where as in North Dum Dum the percentage is 11.87.

⁷ Due to rapid industrialization of the district.

Table 3.3.9: Work Participation Rates in Urban North 24 Parganas

Sl. no.	Name of the Municipality	Percentage of Total workers (Total)	Rank	Percentage of Total Workers (Male)	Rank	Percentage of Total workers (Female)	Rank
1	Ashoknagar Kalyangarh	34.07	9	54.30	14	13.33	3
2	Baduria	32.78	17	54.86	12	9.65	18
3	Bongaon	34.06	10	54.95	11	11.95	5
4	Baranagar	35.70	3	58.24	1	10.43	15
5	Barasat	33.05	15	53.69	17	11.46	12
6	Barrackpore	33.97	11	55.36	8	10.00	17
7	Basirhat	31.37	22	54.13	15	7.48	23
8	Bhatpara	29.66	25	49.29	26	5.71	27
9	Bidhan Nagar	38.29	1	56.37	3	19.72	1
10	Dum Dum	33.72	12	54.64	13	10.86	14
11	Garulia	29.33	26	49.52	25	6.35	26
12	Gobardanga	33.46	14	53.14	18	13.15	4
13	Habra	33.54	13	55.03	10	11.12	13
14	Halisahar	31.44	21	52.38	20	6.92	24
15	Kamarhati	31.57	19	51.25	22	8.83	21
16	Kanchrapara	28.50	27	47.96	27	7.66	22
17	Khardaha	30.84	24	50.20	24	9.38	20
18	Madhyamgram	34.15	8	55.44	7	11.72	8
19	Naihati	31.44	20	50.35	23	10.25	16
20	New Barrackpore	32.85	16	53.86	16	11.62	10
21	North Barrackpore	31.14	23	51.55	21	9.41	19
22	North Dum Dum	34.69	5	56.29	4	11.87	6
23	Panihati	34.68	6	56.10	5	11.71	9
24	Rajarhat Gopalpur	34.58	7	55.95	6	11.81	7
25	South Dum Dum	37.03	2	57.65	2	15.55	2
26	Taki	34.78	4	55.11	9	11.48	11
27	Titagarh	32.64	18	52.47	19	6.44	25
North 24 Parganas Urban		33.27		53.82		10.73	

Source: Census, 2001

From Census 2001, it appears that Baduria still maintains a rural character. 10.13 percent of the workers in Baduria is engaged as cultivator, the percentage of agricultural labour is 14.29 in this municipality. For the other municipalities the percentage of cultivators and agricultural labourers is quite insignificant. Most of the main workers in these municipalities belong to the Census category of 'other workers' which include every type of non-agricultural non-household industry related activities. We shall consider the further details of these jobs in the next Chapter where we discuss the livelihood options in both urban and rural North 24 Parganas.

Table 3.3.10: Distribution of BPL Households in Urban North 24 Parganas

Sl.	Name of the Municipality	Total Households Surveyed	BPL Households	Percentage of BPL Households
1	Ashok Nagar- Kalayangarh*	24257	3281	13.53
2	Baduria	11029	6596	59.81
3	Bongaon	24637	9227	37.45
4	Baranagar	63701	2631	4.13
5	Barasat*	58231	5808	9.97
6	Barrackpore	31411	3093	9.85
7	Bashirhat	29762	10690	35.92
8	Bhatpara	76618	14100	18.40
9	Bidhan Nagar	46216	4066	8.80
10	DumDum	19897	925	4.65
11	Garulia	15382	3288	21.38
12	Gobardanga	10973	5254	47.88
13	Habra	27752	8005	28.84
14	Halisahar	26087	3781	14.49
15	Kamarhati	46555	6672	14.33
16	Kanchrapara	22452	4026	17.93
17	Khardaha	17649	1230	6.97
18	Madhyamgram	35779	5106	14.27
19	Naihati	26316	5337	20.28
20	New Barrackpore	18065	986	5.46
21	North Barrackpore	27178	3191	11.74
22	North Dum Dum	49343	6038	12.24
23	Panihati	68366	4116	6.02
24	Rajarhat Gopalpur	60761	9421	15.51
25	South Dum Dum	76153	3018	3.96
26	Taki	8862	3310	37.35
27	Titagarh	24560	1329	5.41

* According to the draft list

Source: Urban Household Survey (UHS), 2006, SUDA

The UHS 2006 collected the information on Monthly Per Capita Consumption Expenditure (MPCCE) of the urban households in 27 municipalities of the district. On the basis of the expenditure related data, SUDA estimated the percentage of such urban families in each municipality MPCCE of which had been below the poverty line. The results of this exercise are reported in Table 3.3.10. According to SUDA estimates the

percentage of BPL households is the highest in Baduria where 59.81 percent of the families lived below the poverty line. The percentage of BPL families was as high as 47.88 in Gobordanga, 37.35 in Taki and 37.45 in Bongaon. In Basirhat, another municipality in the eastern part of the district, the percentage of BPL households was 35.92. In Habra, the relevant percentage was 28.84. The results of the SUDA survey indicate that the incidence of poverty is lower in the municipalities in the western part of the district. In the western part of the district Garulia is a municipality where the percentage of BPL families is 21.38. In Naihati, 20.28 percent of the urban families were in the BPL category, according to SUDA. The incidence of poverty appears to be low in most of the other municipalities adjacent to Kolkata. One may however note that the percentage of BPL families in Bidhan Nagar (8.80) is much higher than that in Baranagar (4.13). Even in Titagarh the percentage of BPL families is lower than that in Bidhannagar.

CHAPTER - 4

Chapter 4

LIVELIHOOD OPTIONS IN RURAL NORTH 24 PARGANAS

4.1 Introduction

The Work Participation Rate (WPR) in the district is 33.45 percent. Among male the WPR is 53.93 percent; among the female however the WPR is only 11.33 percent. According to Census 2001, 87.79 percent of the total workers are main workers¹. Main workers account for 92.06 percent of the male workers of the district. Among the female workers of the district 65.87 percent are main workers. From Census data, one also understands that the large majority of the main workers in the district earn their livelihood outside agriculture, allied agricultural activities and household industry. Thus, 74.29 percent of the main workers in the district are placed as 'other workers' according to Census 2001. The details of the livelihood related activities that the workers of the district perform cannot be gathered from the Census data. Furthermore, the types of activities that they perform might have changed substantially by now when the District Human Development Report was being prepared. However, the data collected by the Panchayat and Rural Development Department in its Rural Household Survey (RHS) which took place in 2007 contained information on livelihood options in rural Bengal. RHS was done on the basis of complete enumeration and therefore the information set is quite robust. In North 24 Parganas such data are available with respect to 1048419 rural households. Our analysis in this Chapter will largely be based on the RHS data. The RHS data however does not provide the detailed information on engagement in allied agricultural activities and tertiary sector engagement in the nature of petty business and trade. Such activities however are developing fast in rural North 24 Parganas. We therefore decided to collect further information on the livelihood related activities of the people in North 24 Parganas by conducting a baseline survey. The survey was conducted by a professional agency (ORG MARG) on the basis of a questionnaire prepared under the guidance of the DHDR Team. The findings of the survey would also be utilised for the discussion that we take up in this Chapter.

4.2 Baseline Survey: Methodology

Before we report the findings of the baseline survey, it is necessary that we provide an outline of the survey methodology (For details see Appendix 1). The survey was to provide information on the socio economic condition, poverty scenario, and development issues in the district which varies widely across the region. Keeping these parameters into account the sample for current study was designed to provide region specific information separately. For this, the district was divided first in rural and urban area. The rural area has been divided in three regions, viz., villages in riverine or Sunderban region, the Border area villages and the villages in non-Sunder ban non-Border area of rural North 24 Parganas. We identified first the villages in Border area following the administrative definition of a Border area village². Some of the Border area villages were also in Sunder ban region. We included these villages in the group of Border area villages and the remaining villages from 6 blocks in Sunder ban region were identified as villages that belong to riverine area. The problem of overlapping that was there in our discussion in Chapter 2 was thus taken care of. The remaining villages, i.e., the villages which were neither in the border area nor in the riverine area constituted a separate set of villages identified as Other Rural area villages. To ensure that

¹ Working for at least 183 days in a Calendar year.

² A village within 5 Km of distance from the international boundary.

enough variability is captured from each of the rural areas, samples of equal size were drawn from each of the set of villages. The sampling was multistage in nature. From each zone, 20 villages were selected by CSS. In the next stage, 500 households were sampled from the group of 20 villages on the basis of the number of households in each village. The distribution of sample villages among the blocks of the district is described in Table 4.2.1.

Since the socio-economic situation in urban areas differs considerably from rural areas, urban areas were considered separately regardless of their topographic location.

Table 4.2.1: Distribution of Sampled Villages over the Blocks of the District

	Block Name	OA	Sample	BA	Sample	RA	Sample RA	Total	Total Selected
1	Amdanga	80	2	0	0	0	0	80	2
2	Baduria	87	2	10	1	0	0	97	3
3	Bagdah	80	1	26	2	0	0	106	3
4	Barasat -I	81	1	0	0	0	0	81	1
5	Barasat-II	77	1	0	0	0	0	77	1
6	Barrackpore-I	43	1	0	0	0	0	43	1
7	Barrackpore-II	21	1	0	0	0	0	21	1
8	Basirhat -I	30	1	32	3	0	0	62	4
9	Basirhat-II	68	1	0	0	0	0	68	1
10	Bongaon	115	2	28	3	0	0	143	5
11	Deganga	108	2	0	0	0	0	108	2
12	Gaighata	76	1	29	2	0	0	105	3
13	Habra-I	58	1	0	0	0	0	58	1
14	Habra-II	78	1	0	0	0	0	78	1
15	Rajarhat	38	1	0	0	0	0	38	1
16	Swarupnagar	37	1	29	3	0	0	66	4
17	Hasnabad	0	0	25	2	48	3	73	5
18	Hingalganj	0	0	29	4	15	1	44	5
19	Haroa	0	0	0	0	90	5	90	5
20	Minakhan	0	0	0	0	74	4	74	4
21	Sandeshkhali-I	0	0	0	0	30	4	30	4
22	Sandeshkhali-II	0	0	0	0	24	3	24	3
	Total Village	1077	20	208	20	281	20	1566	60

Source: Base Line Survey 2008, ORG MARG

For urban survey, the NSSO Urban Frame Sample (UFS) of the district was considered. The towns of the selected UFS blocks are reported in Table 4.2.2. The primary sample units were Urban Frame Sample Blocks in urban area of the district (for details see Appendix 1).

Table 4.2.2: Selected UFS Blocks and Towns of the District

Residential Area UFS			Slum Area UFS		
	Town	Frame Population		Town	Frame Population
1	Garulia	601	1	Dumdum	726
2	Jafarpur	772	2	Titagarh	796
3	Dumdum	630	3	Titagarh	640
4	New Barrackpore	620	4	Madhyamgram	550
5	Basirhat	606	5	Barasat	625
6	North Barrackpore	610	6	Kamarhati	700
7	Khardaha	695	7	Panihati	635
8	Halisahar	871	8	Kamarhati	680
9	Barrackpore	792	9	Kamarhati	630
10	Habra	670	10	South Dumdum	650
11	Naihati	715	11	South Dumdum	612
12	Bidhannagar	653	12	Bhatpara	740
13	North Dumdum	609	13	Bhatpara	740
14	North Dumdum	615	14	Bhatpara	720
15	Baranagar	728	15	Bhatpara	710
16	Barasat	620	16	Bhatpara	625
17	Rajarhat Gopalpur	710	17	Bhatpara	780
18	Kamarhati	660	18	Bhatpara	640
19	Rajarhat gopalpur	620	19	Bhatpara	800
20	Panihati	625	20	Bhatpara	610
21	Panihati	748			
22	South Dumdum	650			
23	Bhatpara	540			
24	South Dumdum	585			
Total number of RA UFS Blocks in the district		6442	Total number of SA UFS Blocks in the district		656

Source: Base Line Survey 2008, ORG MARG

4.3 Livelihood Options in Rural North 24 Parganas

According to RHS 2007, the main source of livelihood for 51.28 percent (Table 4.3.1) of the families in the rural blocks of the district is engagement as physical labourer in agriculture and non-agricultural activities. Such workers are usually engaged on daily wage basis. About one-fifth of the families earn livelihood from cultivation of own agricultural land. Self employed rural artisans and such others who earn livelihood from Own Account Enterprise (OAE) account for livelihood of 6.2 percent of the families. Labour oriented regular job in un-organised sector is the source of livelihood for 7.64 percent of the rural households of the district. Organised sector employment along with engagement as self-employed professionals (Medical practitioner, Advocate) account for the livelihood of 14.15 percent of the households in rural North 24 Parganas.

Engagement as physical labourer accounts for the source of livelihood for 59.21 percent (Table 4.3.1) of the households in Habra I. In Barasat II, the percentage is 57.23. The relevant percentage is 56.04 in Sandeshkhali II. In Baduria block also physical labour in agriculture and other sectors on daily wage basis is the source of livelihood for as high as 57.13 percent of the households in the block. The percentage of such households is low only in Barrackpore I, the block adjacent to Kolkata Metropolitan Area (KMA). In Barrackpore I the organized sector employment along with engagement as self employed professionals is the source of livelihood for 28.74 percent of the households in the block. Such phenomenon is also the feature of other adjacent blocks of KMA. Thus in Barrackpore II, the organized sector as also the professional activities account for the livelihood of the 29.03 percent of the families in the block. In Barasat I and Rajarhat, two other adjacent blocks of KMA, the relevant percentages are 21.03 and 20.87 respectively.

Labour oriented regular jobs account for the livelihood of 7.64 percent (Table 4.3.1) of the families in rural North 24 Parganas. Inter-block variation in this regard is however, quite high. In Bagda for example, only 3.64 percent of the households have labour oriented regular job as the main source of earning for the family. In Barrackpore I on the other hand, the percentages of such families is 14.78. In Rajarhat, the relevant percentage is 14.05. It appears that labour oriented regular jobs in unorganized sector are available mostly in such blocks which are nearer to Kolkata. One would however, point out that according to RHS 2007 the percentage of such families is also very high (11.06 percent) in Sandeshkhali I, a block which is quite far off from Kolkata.

Cultivation in own land is the main source of earning for 20.68 percent (Table 4.3.1) of the families in rural North 24 Parganas. If we exclude Barrackpore I, Barrackpore II and Barasat I, three blocks which are nearer to KMA the percentage of such families in the district increases to 22.47. The inter-block variation in this regard is not also very high if we exclude these three blocks. The variation captured in terms of Coefficient of Variation (CV) is found to be 0.27 with respect to these blocks. If we include the more urbanized blocks of Barrackpore I, Barrackpore II and Barasat I the CV increases to 0.37. Cultivation in own land is still the major source of livelihood with respect to 34.46 percent of the households in Hingalganj block. In Bagda, 29.49 percent of the households have cultivation in own land as the main source of livelihood. The percentage of such families is also quite high in Deganga, Minakhan, Sandeshkhali I and Swarupnagar.

Table 4.3.1: Block wise percentage distribution of Households according to Livelihood

Block Name	1*	2*	3*	4*	5*	Total
Barrackpore-I	32.97	10.42	13.09	14.78	28.74	100.00
Barrackpore-II	52.19	2.28	6.87	9.64	29.03	100.00
Amdanga	50.29	21.12	5.12	8.05	15.43	100.00
Barasat-I	48.97	10.39	6.73	12.88	21.03	100.00
Barasat-II	57.23	16.54	7.09	8.14	11.01	100.00
Deganga	45.00	27.27	5.38	7.47	14.88	100.00
Habra-I	59.21	13.66	6.64	5.94	14.55	100.00
Habra-II	56.35	17.27	6.51	6.78	13.08	100.00
Rajarhat	42.36	13.82	8.91	14.05	20.87	100.00
Baduria	57.13	21.01	4.55	5.94	11.37	100.00
Basirhat-I	54.53	16.32	6.03	9.44	13.67	100.00
Basirhat-II	52.97	18.33	4.85	9.53	14.31	100.00
Haroa	47.71	24.78	9.01	7.85	10.65	100.00
Hasnabad	56.45	18.66	6.03	6.89	11.97	100.00
Hingalganj	49.80	34.46	3.17	4.30	8.27	100.00
Minakhan	47.69	27.58	5.50	7.09	12.15	100.00
Sandeshkhali-I	43.81	27.10	6.34	11.06	11.69	100.00
Sandeshkhali-II	56.04	28.97	3.42	4.74	6.83	100.00
Swarupnagar	51.79	25.44	6.38	5.98	10.42	100.00
Bagdah	52.25	29.49	3.56	3.64	11.06	100.00
Bongaon	50.70	26.47	6.51	5.57	10.75	100.00
Gaighata	52.05	17.82	7.30	6.57	16.25	100.00
Total :	51.28	20.68	6.24	7.64	14.15	100.00

Source: RHS 2007, North 24 Parganas

*Livelihood

1. Daily / Agricultural / Other Physical Labour
2. Agriculture and provides own labour
3. Self Employed Rural Artisan/ Hawker, those who do not employ others.
4. Labour oriented regular job in the unorganized sector.
5. Others viz., job in the Organised Sector, Medical Practitioner, and Advocate.

We however, were interested in further details with respect to the source of livelihood in the villages of the district. The baseline survey conducted by ORG MARG which was based on a representative sample provided some information in this regard. The survey covered 60 villages, 20 each from Riverine Area, Border Area and the Other Rural Area of rural North 24 Parganas. Agriculture (own farm activities) was found to exist as a source of livelihood in each of the sampled villages. Petty Business.

Table 4.3.2- Occupations available in the sample villages

	Riverine area	Border Area	Other Rural Area	Total
	Number	Number	Number	Number
Agriculture (Own Farm activities)	20	20	20	60
Horticulture	7	9	11	27
Floriculture		8	7	15
Dairy	2	6	7	15
Animal Husbandry	15	16	13	44
Salaried employment	14	20	18	52
Artisan	9	14	9	32
Petty Business trade	16	18	19	53
Forest Produce	4	2		6
Fisheries	17	16	12	45
Casual Labour(Farm and Non Farm)	16	17	19	52

Source: Base Line Survey 2008, ORG MARG

Trade was found to exist in most of the villages. In each of the villages in Border Area (BA) salaried employment was reported as a source of livelihood for some of the households in the sampled villages. In 6 out of 20 villages in Sunderbans region, there was not a single village that earned livelihood from salaried employment. Salaried employment as a source of livelihood was reported with respect to 18 villages in the Other Rural area (ORA). Artisans were found to exist in some of the villages in BA; the number of such villages was rather low in Sunderban region as also in ORA. Fisheries remain a source of livelihood in 17 out of 20 villages in Sunderbans. In BA there are 16 villages in which pisciculture still exist as a source of livelihood for some of the families. Among the new sources of livelihood in rural North 24 Parganas one should mention horticulture for commercial production. This was found to exist in 27 out of 60 villages selected for baseline survey (Table 4.3.2). Even in 7 villages in Sunderbans horticulture for commercial production was found to be taken up by some of the enterprising peasant households. Floriculture is another emerging area of livelihood for the peasant families. This was however found to remain confined to BA villages and ORA villages of the district.

**Table 4.3.3: Distribution of Households based on sources* of Income
(Rural North 24 Parganas)**

Income Source	Riverine area		Border Area		Other Rural area	
	N	%	N	%	N	%
Farmer/ cultivator/share croppers	165	33.0	222	44.4	171	34.2
Animal husbandry/ dairy	57	11.4	51	10.2	50	10.0
Agricultural labourers	114	22.8	214	42.8	128	25.6
Skilled wage labourers	132	26.4	158	31.6	139	27.8
Semi/ unskilled wage labourers	230	46.0	135	27.0	137	27.4
Salaried employee (private sector)	35	7.0	22	4.4	46	9.2
Salaried employee (government sector)	19	3.8	19	3.8	12	2.4
Owner of trading/retail business from fixed premises	31	6.2	36	7.2	45	9.0
Owner of petty trading/retail business without fixed premises	55	11.0	52	10.4	49	9.8
Fishing	53	10.6	23	4.6	11	2.2
Non-Timber Forest Produce Collections					3	0.6
Remittance	13	2.6	12	2.4	9	1.8
Artisan	26	5.2	15	3.0	39	7.8
Owner of small-scale manufacturing unit (SSI)	2	0.4	3	0.6	3	0.6
Owner of medium to large scale manufacturing unit	0	0	0	0	0	0
Self employed professional	12	2.4	20	4.0	13	2.6
Other self employed workers	9	1.8	15	3.0	12	2.4
Home based workers (production and sales)	1	0.2	1	0.2	2	0.4
Retired /Elderly (unable to work)/Pension	5	1.0	7	1.4	17	3.4
Total	500		500		500	

* one among three major sources

Source: Base Line Survey 2008, ORG MARG

The details of income sources for the surveyed households were also investigated. Each household was asked about their sources of income and a maximum of three sources were recorded for each of the households. The findings, as reported in Table 4.3.3 indicate that agriculture had been one of the sources of livelihood with respect to 33 percent of the surveyed households in Riverine Area (RA). In BA, the percentage was 44.4 and in ORA it was only 34.2 percent. The implication is that the majority of the respondent households in every area of the district did not have agriculture as a major source of income (that is agriculture as one among first three sources of income). In the SA engagement as semi-skilled and unskilled wage labourers was found to be a major way of maintaining livelihood with respect to 46 percent of the surveyed households. In BA the percentage of such households had been 27 only. The relevant percentage was 27.4 in ORA. As many as 17 major sources of income were recorded for the 1500 surveyed households. It appears that the rural scenario is changing in the district. There were salaried

employees in the private sector (about 9 percent in ORA), salaried employees in government sector (about 4 percent in SA and BA) and self employed professionals (12 among 500 households in SA and 20 among the same number of households in BA). There were also pensioners and families living on remittance from abroad.

4.4 Agriculture and Allied Agricultural Activities

Land use Pattern

Agriculture is still a major source of livelihood in rural North 24 Parganas. Since the population density in the district is very high and since the extent of urbanization is as high as 54.3, the land use pattern in the district is changing quite fast and the area under cultivation is declining. At present the net cropped area of the district is 260537³ hectare with current fallow of 1334 hectare and land under miscellaneous tree groves of 4317 hectare. The area under non-agricultural use is as high as 86781 hectare. 24.58 percent of total landmass of the district is now under non-agricultural use. The land records indicate that in 1990-91, the net-cropped area distributed over various size classes of landholdings was 574585 hectare. By 1995-96, it reduced to 369599⁴ hectare. Within a span of about 15 years the land under agricultural crops in the district reduced by 314048 hectare. In this district, there is not a single piece of land which is barren or uncultivable. The land records also indicate that there is no land in any block which could be considered as cultivable waste. Whatever landmass the district possesses is under human use. The reduction in agricultural land is to be explained mainly by the fact that increased utilisation of land for non-agricultural purposes, particularly in the areas adjacent to Kolkata, changed the land use pattern of the district radically. Thus in Barrackpore II, 49.95 percent of the total landmass is now used for non-agricultural purposes. In Rajarhat, 49.7 percent of the land area is utilized for non-agricultural purposes. Even in Barasat I, 48.52 percent of land is not available for crop cultivation. The other important point that one should highlight is the fact that in many areas croplands are being used for developing orchards and brick kilns. Thus in Barrackpore II, 2.82 percent of the landmass is under miscellaneous tree groves and brick kilns. In Habra II, 2.31 percent of land is being used for raising orchards. In SA much of the land is now being converted to brackish water fisheries for shrimp cultivation. Loss of agricultural land is also partly due to natural calamities. Thus, in some of the blocks in the upper stream of Ichhamati much of the agricultural land used to remain inundated due to the loss of natural flow of water through this river. Over-silting coupled with encroachment on Ichhamati had aggravated the crisis. However, re-excavation of river Ichhamati was taken up during 2005-06 for the portion from BSF bridge at Kalanchi near Berigopalpur (132.50 Km) to 2 Km downstream of Tentulia Bridge (157.40 Km) in the District of North 24-Parganas for a length of 24.90 Km. In a conservative estimate, Annual Average Benefit out of re-excavation of Ichhamati and re-sectioning of River Jamuna was found to be more than Rs. 14 Crs. This would be largely due to reclamation of land for agricultural use

Land Tenure

The average size of the operational holdings of the district is 0.66 hectare. Agriculture here is dominated by marginal and small farmers. Thus, in 1991, 79.17 percent of the agricultural holdings were under the

³ Source: District Statistical Handbook, North 24 Parganas, 2006, Page no. 58, Table 5.1

⁴

Year	Number of holding	Area of Holding (ha)
1990 – 91	543578	574585
1995 – 96	554916	369599
2000 – 01	428548	284314

Source: Agriculture Dept, North 24 Parganas

marginal farmers. By 2000-01 the share of the marginal farmers in the total number of operational holdings increased further to 84.64 percent. Marginal farming account for 58.46 percent of the area under cultivation in the district. 12.18 percent of the operational holdings in the district belong to the small farmers. The area under small farming is however, 28.1 percent. The small and the marginal farmers thus account for 96.82 percent of the holdings in the district. 86.56 percent of agricultural land is under the possession of marginal and small farmers. There are semi-medium and medium farmers in the district. In fact, 13.42 percent of agricultural land in the district belongs to these size classes of farmers (Table 4.4.1). In terms of the percentage of holdings however, the semi-medium and medium farmers hardly have any significance. Again, the large farms are almost non-existent, according to the official data. Cultivation in the district is thus mainly the endeavour of the small and marginal farmers.

Table 4.4.1: Percentage Distribution of Operational Holdings According to Size-class in the District of North 24 Parganas

Year	Marginal		Small		Semi Medium		Medium		Large		Total		Average size of Holding
	N	A	N	A	N	A	N	A	N	A	N	A	
1990 – 91	79.17	43.86	14.89	30.29	5.22	20.35	0.71	5.41	0.00	0.09	100.00	100.00	0.69
1995 – 96	80.69	47.08	14.57	32.51	4.35	17.25	0.39	3.00	0.01	0.17	100.00	100.00	0.67
2000 – 01	84.64	58.46	12.18	28.10	3.00	12.10	0.18	1.32	0.00	0.02	100.00	100.00	0.66

Source: BAE&S, Govt. of WB

N = Number of Holding, A = Area of Holding in hectares

Marginal = below 1.0 hectares, Small = 1.0 hectares & above but less than 2.0 hectares

Semi Medium = 2.0 hectares & above but less than 4.0 hectares

Medium = 4.0 hectares & above but less than 10.0 hectares

Large = 110. hectares & above. It includes mostly institutional holdings.

The preponderance of small and marginal holdings in the district is largely explained by land reforms in 1970s and 1980s. The political will of the Left Front government for vesting the semi-surplus land with the state and redistribution of them among the land less and poor families brought about a radical change in the land holding pattern of the district. The security of tenure following *Operation Barga* also benefited a large number of share-croppers in the district.

Currently the Bargadars, the Pattaholders, (other) small and marginal farmers and agricultural labourers constitute a farmer population of 1017016 in the district. 7.26 percent of these farmers are Bargadars and 13.7 percent of the farmers are Pattaholders. The Bargadars and the Pattaholders constitute the community that benefited directly from land reforms in the district. Such beneficiaries account for 38.63 percent of the farmers in Hasnabad. In Other SA blocks also the percentage of the direct beneficiaries of land reform is quite high. Thus in Hingalganj, 34.76 percent of the farmers are Pattaholders. Pattaholders and Bargadars taken together constitute a strong contingent of 30976 farmers (41.48 percent). In Sandeshkhali I and Sandeshkhali II, the relevant percentages are also very high. In Haroa, the Pattaholders and Bargadars account for 30.47 percent of the farmer households in the block. In Minakhan and in Rajarhat the direct beneficiaries of land reform account for 28.4 percent and 25.77 percent of the farmers. As Table 4.4.2 indicates, the percentage of Bargadars and Pattaholders in ORA and BA is not as high as in the SA.

**Table 4.4.2: Percentage Distribution of Agricultural Population*
of North 24-Parganas for the year 04-05**

Blocks	Bargadars	Patta Holders	Small farmers	Marginal Farmers	Agricultural Labourers
Bagdah	3.33	11.15	5.31	34.43	45.78
Bongaon	4.31	4.86	10.12	35.16	45.56
Gaighata	2.23	7.15	5.77	39.16	45.70
Habra-I	2.31	5.98	4.44	42.11	45.17
Habra-II	2.82	7.27	3.17	42.44	44.30
Barasat-I	3.96	8.92	1.07	43.95	42.10
Barasat-II	9.79	7.59	4.50	41.89	36.24
Amdanga	4.75	5.75	4.99	43.51	41.00
Deganga	3.41	8.54	6.38	41.15	40.53
Rajarhat	11.79	13.98	0.73	25.74	47.76
Barrackpore-I	4.51	7.19	4.97	35.01	48.32
Barrackpore-II	0.48	13.92	3.97	47.81	33.82
Baduria	3.06	9.28	4.41	42.26	41.00
Haroa	16.24	14.22	3.36	28.84	37.33
Minakhan	15.83	12.57	5.29	32.90	33.42
Swarupnagar	3.59	7.74	6.31	34.79	47.57
Hasnabad	21.20	17.43	2.70	29.79	28.88
Hingalganj	6.72	34.76	5.62	26.22	26.68
Sandeshkhali-I	11.97	20.14	4.28	33.57	30.05
Sandeshkhali-II	8.31	19.81	5.50	29.29	37.09
Basirhat-I	8.49	9.12	2.70	45.93	33.76
Basirhat-II	7.26	13.70	4.72	38.30	36.02
District	7.57	12.83	5.13	35.67	38.80

Source: BAE&S, Govt. of WB

*Excluding semi-medium, medium and large farmers

The overall scenario with respect to the land holding pattern of the district is better captured in the RHS 2007. As the data indicate, 62.7 percent of the households in the district do not possess any agricultural land (Table 4.4.3). Together with land cultivated registered Barga holder, 28.4 percent of the households in the district had less than one acre of irrigated land (less than 2 acres for non-irrigated) per family. RHS 2007 also conforms the view that the cultivators in North 24 Parganas are mostly marginal and small farmers. Among the land holders, 76.14 percent do not have more than one acre of irrigated land (or not more than 2 acres of non-irrigated land) per family (Table 4.4.4). Only 2.2 percent of the land holders possess more than 3 acres of irrigated land or more than 6 acres of non-irrigated land per family. There are 8647 such families in the district. 11.5 percent of these big raiyats are in Bongaon block. Rajarhat accounts for 7.64 percent of these substantive farmers. There are 640 such households in Gaighata. In Habra I,

there are 591 big raiyats. 5.9 percent of the landholding families in Barrackpore I belongs to this category. The comparable percentage in Barrackpore II is 4.89. In Bongaon on the other hand, such big raiyots account for only 2.63 percent of total land holding families of the block. The scenario is more or less the same in Gaighata.

Table 4.4.3: Block wise percentage distribution of households with respect to Effective landholding of the family (together with land cultivated as registered Barga holder)

Block Name	1*	2*	3*	4*	5*	Total
Barrackpore-I	78.37	14.25	3.90	2.21	1.28	100.00
Barrackpore-II	93.67	4.84	0.79	0.39	0.31	100.00
Amdanga	59.53	31.58	5.05	2.86	1.00	100.00
Barasat-I	80.03	16.67	2.07	0.84	0.38	100.00
Barasat-II	57.09	32.35	6.17	3.22	1.16	100.00
Deganga	56.21	34.84	6.31	2.01	0.64	100.00
Habra-I	75.23	18.00	4.32	1.28	1.18	100.00
Habra-II	66.84	26.14	5.02	1.50	0.50	100.00
Rajarhat	70.48	22.37	2.94	2.18	2.03	100.00
Baduria	62.10	29.89	5.43	1.97	0.61	100.00
Basirhat-I	64.50	27.79	5.12	1.58	1.01	100.00
Basirhat-II	64.46	28.87	4.45	1.56	0.65	100.00
Haroa	56.64	33.13	6.22	2.96	1.06	100.00
Hasnabad	56.32	35.51	6.09	1.62	0.46	100.00
Hingalganj	43.60	44.61	8.81	2.44	0.54	100.00
Minakhan	48.58	41.26	7.55	2.00	0.61	100.00
Sandeshkhali-I	50.29	40.56	6.57	1.71	0.87	100.00
Sandeshkhali-II	44.78	45.22	7.34	2.09	0.57	100.00
Swarupnagar	61.40	28.77	6.94	2.37	0.52	100.00
Bagdah	56.04	29.83	9.94	3.09	1.10	100.00
Bongaon	60.50	26.36	9.08	3.01	1.04	100.00
Gaighata	66.80	23.87	6.46	2.08	0.78	100.00
Total :	62.70	28.40	5.97	2.10	0.82	100.00

Source: RHS 2007, North 24 Parganas

* Effective landholding of the family (together with land cultivated as registered Barga holder)

1: No land

2: Irrigated land less than 1 acre or non-irrigated land less than 2 acres

3: Irrigated land 1 < > 2 acre or non-irrigated land 2 < > 4 acres

4: Irrigated land 2 < > 4 acre or non-irrigated land 3 < > 6 acres

5: Irrigated land > 3 acres or non-irrigated land > 6 acres

In spite of land reforms, a high percentage of agricultural population remains landless in the district. The percentage of agricultural labourers in the district is 38.8, according to the official data. One may observe that the inter-block dispersion of agriculture labourers is very high in the district. Thus, the percentage of agricultural labourers is as low as 26.68 in Hingalganj. In Bagdah on the other hand, the relevant percentage is as high as 45.78. It appears that the intensity of landlessness is rather low in the SA. In the BA, a higher percentage of the farmers remain landless.

Table 4.4.4: Block wise percentage distribution of households with respect to Effective landholding of the family (together with land cultivated as registered Barga holder)

Block Name	2*	3*	4*	5*	Total
Barrackpore-I	65.86	18.04	10.20	5.90	100
Barrackpore-II	76.52	12.45	6.14	4.89	100
Amdanga	78.01	12.47	7.06	2.46	100
Barasat-I	83.49	10.39	4.22	1.90	100
Barasat-II	75.40	14.39	7.52	2.69	100
Deganga	79.56	14.40	4.59	1.45	100
Habra-I	72.67	17.42	5.16	4.75	100
Habra-II	78.83	15.13	4.53	1.51	100
Rajarhat	75.80	9.95	7.37	6.87	100
Baduria	78.86	14.32	5.20	1.62	100
Basirhat-I	78.29	14.42	4.44	2.85	100
Basirhat-II	81.25	12.52	4.40	1.82	100
Haroa	76.39	14.35	6.83	2.44	100
Hasnabad	81.28	13.95	3.71	1.06	100
Hingalganj	79.09	15.63	4.33	0.95	100
Minakhan	80.24	14.68	3.89	1.19	100
Sandeshkhali-I	81.59	13.21	3.44	1.76	100
Sandeshkhali-II	81.90	13.29	3.79	1.03	100
Swarupnagar	74.53	17.98	6.15	1.34	100
Bagdah	67.85	22.62	7.03	2.50	100
Bongaon	66.75	23.00	7.63	2.63	100
Gaighata	71.89	19.47	6.28	2.36	100
Total :	76.14	16.01	5.64	2.20	100

Source: RHS 2007, North 24 Parganas

* Effective landholding of the family (together with land cultivated as registered Barga holder)

2: Irrigated land less than 1 acre or non-irrigated land less than 2 acres

3: Irrigated land 1 < > 2 acre or non-irrigated land 2 < > 4 acres

4: Irrigated land 2 < > 4 acre or non-irrigated land 3 < > 6 acres

5: Irrigated land > 3 acres or non-irrigated land > 6 acres

The other small and marginal farmers (who are not Pattaholders or Bargadars) form the backbone of agriculture in the district. These two sections of farmers account for 40.8 percent of the farmer households of the district. The marginal farmers account for 45.93 percent of the farming households in Basirhat I. The percentage is still higher (47.81) in Barrackpore II. In Amdanga, Deganga, Barasat I, Barasat II and Habra I, the percentage of marginal farmers is above the district average. The small farmers (not Pattaholders or Bargadars) account for 5.43 percent of the farmer households of the district. There is inter-block variation in the percentage of small farmers. Thus in Bongaon, small farmers account for 10.12 percent of the farmer households in the district. In Rajarhat, on the other hand, the percentage of small farmers is as low as 0.72.

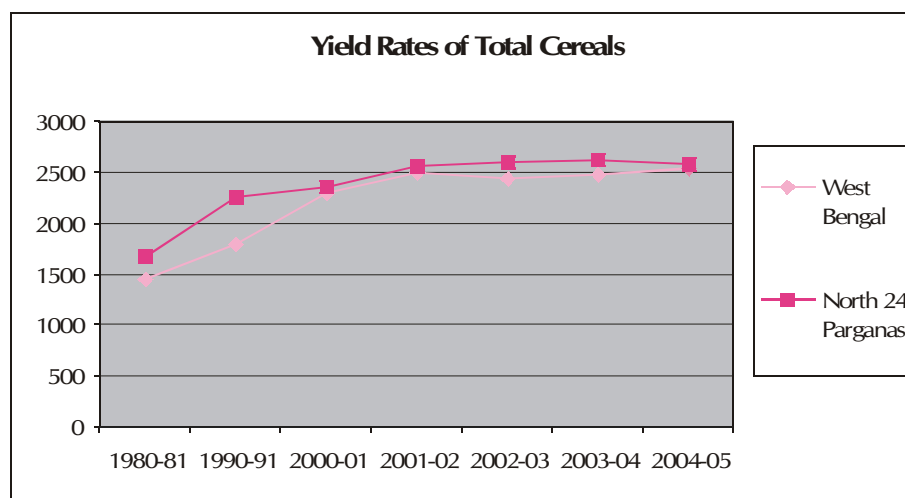
Production and Productivity in Agriculture

The small and marginal farmer dominated agriculture of North 24-Parganas recorded very good performance in production and productivity of agricultural crops. The yield rate of rice in the district is 2589 kg/hectare. The state average is 2574 kg/hectare. In terms of total cereal also, North 24-Parganas is consistently placed above the state average. Thus in 1980-81, the yield rate of total cereal in the district was 1674 kg/hect. By 1990-91, it increased to 2246 kg/hect. In both the years the yield rate of the district had been much higher than that of the state average. The yield rate of total cereals was increasing further, although at a diminishing rate during 2000-01, 2001-02, 2002-03 and 2003-04. In 2004-05 however, the yield rate of total cereals declined from 2612 kg/hect in the previous year to 2580 kg/hect. The decline in the yield rate of total cereals is largely due to the decline in the yield rate of rice in the district. However, in all the years the yield rates of the district remained above the average yield rate of West Bengal⁵.

Rice is the major cereal which accounts for more than 95 percent of total cereal produced in the district. Traditional *aman* crop is still the major crop of the district. During 2005-06, the district produced 398.682 thousand metric ton of *aman* variety rice. Next in importance is *boro*, the summer paddy. In every block including the blocks in SA, depending on the availability of water, *boro* is taken up as a second crop. In 2005-06, *boro* was produced in 96675 hectare and the production of *boro* was 283.954 thousand metric ton. *Aus* rice is the third paddy produced mainly in Bagda, Bongaon and Gaighata region. In Amdanga, Baduria and Swarupnagar region also *aus* is raised in a substantial part of the agricultural land. Productivity of *boro* in 2005-06 was 2937 kg per hectare, that of *aman* and *aus* being 2456 and 2409 kg per hectare respectively. In terms of productivity the highest yield rate of *boro* was recorded in Baduria (3189.11 kg/ha). In Swarupnagar (3184.14 kg/ha), Bongaon (3163 kg/ha), Gaighata (3036.25 kg/ha) and Habra I (3014.52 kg/ha) also the yield rate of *boro* was impressive. These blocks also performed well with respect to the production of two other varieties of rice, namely, *aus* and *aman*⁶.

⁵ Source of this paragraph is Statistical Abstract, 2005, BAE&S, GOWB, Page no 144, 149.

⁶ Source of this paragraph is District Statistical Handbook, North 24 Parganas, 2006, Page no. 101, Table 18.1.

Figure 4.4.1: Yield Rate of Total Cereals in North 24-Parganas and West Bengal

Source: Statistical Abstract, 2005, B.A.E&S. West Bengal;

Among the non-cereals, the district produces jute and potato along with oilseeds (till and mustard). Jute is grown in all blocks of the district except Sandeshkhali I and Sandeshkhali II. In Bagdah, Bongaon, Gaighata, Habra I and Habra II jute is produced in 16824 ha of land which accounts for about 35 percent of the jute area of the district. Among other blocks, Amdanga, Barasat II and Deganga along with Baduria, Basirhat and Swarupnagar are traditional areas of jute production in the district. The yield rate of jute was highest in Bongaon according to the official data (2005-06). Deganga (81.37 bale/ha) is second in productivity.

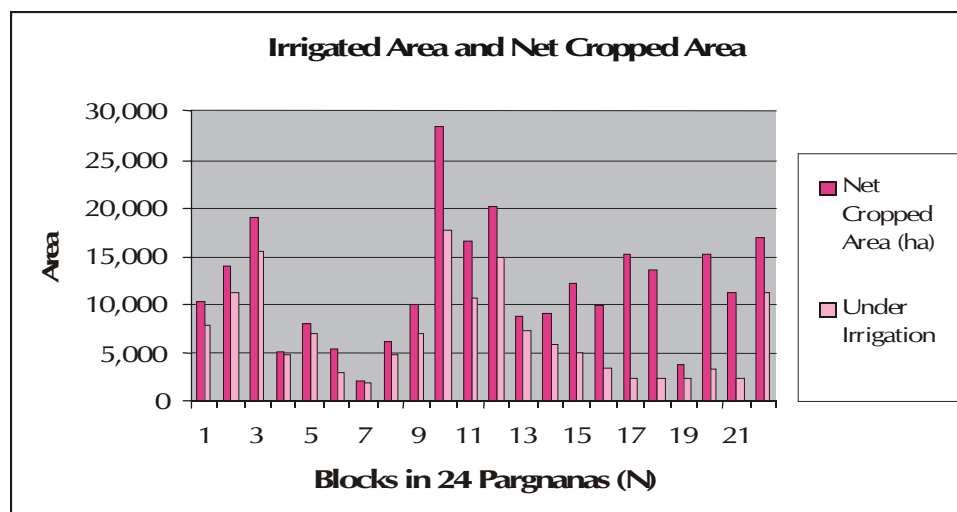
Potato was grown in 5747 ha of land in 2005-06. The highest area under potato was in Swarupnagar where the area under potato was 1059 ha in 2005-06. There was wide inter-block variation in the productivity of potato. Thus in Barasat I the yield rate of potato in 2005-06 was 17439 kg/ha. In Gaighata on the other hand, the yield rate was as high as 29318 kg/ha in the same year. In Swarupnagar the productivity of potato was 24246 kg/ha.

Till and mustard, the oilseeds are produced in 9343 ha and 32263 ha respectively. Area under mustard is the highest in Bongaon (4972 ha), followed by Bagdah (4265 ha). The yield rate of mustard is the highest in Bongaon (1457 kg/ha). Till is grown mostly in Bagdah, Bongaon and Gaighata region. These three blocks account for about 40 percent of the area under till production in 2005-06. Wide variation in the productivity of both Till and Mustard is observed in the performance of various blocks in the production of oilseeds. Thus in Bagdah, the yield rate of Mustard is 1021.45 kg/ha. In Bongaon the yield rate is even higher (1457 kg/ha). In Hingalganj, on the other hand the yield rate of Mustard is 571.5 kg/ha only. With respect to the production of till also inter-block variation in productivity does exist. However, the productivity variation in case of Till is low because the production of this oilseed does not depend much on irrigation.

Inter-block variation in the yield rates of *boro* is largely explained by the variation in the availability of irrigation facilities in the blocks. The productivity is high in Bagdah, Barasat I, Barasat II or Habra I because the accessibility to irrigation facilities is very high in these blocks. Thus in Barasat I, 90.57 percent of the net-cropped area is covered by irrigation facilities. In Bagdah, percentage of net-cropped area under irrigation is as high as 81.47. In Habra I percentage of net-cropped area under irrigation is 83.68. In some blocks, particularly in SA access to irrigated water is abysmally poor. Thus in Hingalganj only 15.37 percent of the net-cropped area is covered by irrigation. In Sandeshkhali I and Sandeshkhali II, the relevant

percentages are 21.87 and 20.51 respectively. In Minakhan, the percentage is as low as 17.53. The acreage under *boro* in these blocks is accordingly very low. The productivity of other irrigation dependent crops is also low in these blocks.

Figure 4.4.2: Irrigated Area and Net Cropped Area in the Blocks



Name of the Blocks: 1. Amdanga, 2. Baduria, 3. Bagdah, 4. Barasat – I, 5. Barasat – II, 6. Barrackpore – I, 7. Barrackpore – II, 8. Basirhat – I, 9. Basirhat – II, 10. Bongaon, 11. Deganga, 12. Gaighata, 13. Habra – I, 14. Habra – II, 15. Haroa, 16. Hasnabad, 17. Hingalganj, 18. Minakhan, 19. Rajarhat, 20. Sandeshkhali – I, 21. Shandeshkhali – II, 22. Swarupnagar

Source: Minor Irrigation Census, 2000-2001

The sources of irrigation in the district are mainly the deep tube well and shallow tube wells that exploit the sub soil water resources of the district. Canal, river lift irrigation, ponds and tanks that serve as the sources of supply of surface water without disturbing the store of sub-soil water are of minor importance in the district. The old derelict rivers and canals which might serve as very good sources of water for irrigation remain neglected. Consequently, the district is facing the problem of water shortage. Maintaining a prosperous agriculture at the cost of a very important natural resource like water might be counterproductive in the long run. Location specific technologies and diversification of crops that would minimise the use of water resources and enhance the farm income should be promoted for facing this challenge.

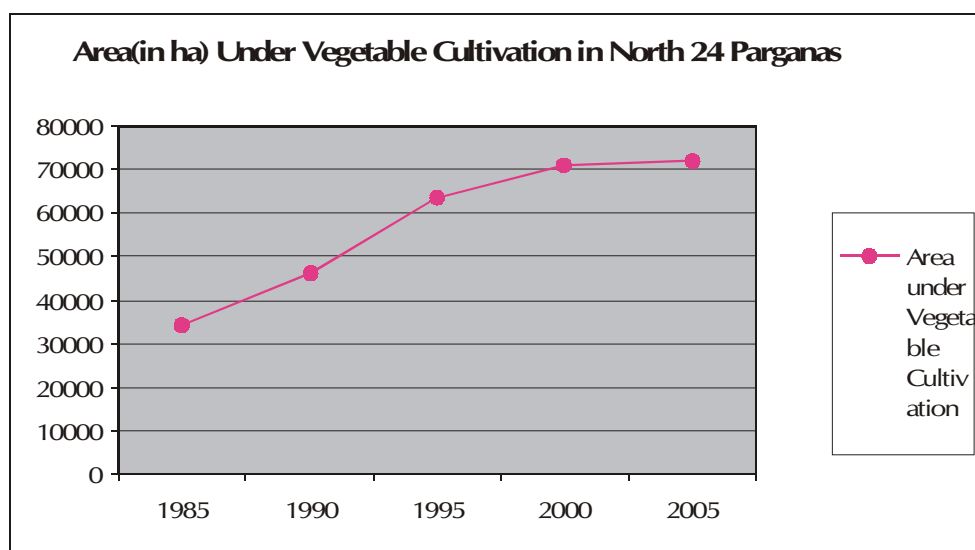
The crop cycle of the district is basically rice/jute-rice-rice or rice-oilseed /pulses-rice. This is gradually becoming unsustainable. Rationalisation of areas under different crops taking into account technological possibilities and desirability as also the problem of non-remunerative crop prices are the issues that need to be addressed urgently and properly. There is a crop diversification programme of the agricultural department which has already been implemented. According to district plan, this will be accelerated during coming years. The effect of diversification programme has been noticed as more and more numbers of farmers have diversified their production system through introduction of high value crops like flowers, fruits and vegetables.

At present total land under orchard in the district is 17948 ha and total land under vegetables and flowers is 65000 ha. Mango, banana, lime and lemon, papaya and lichi are now being cultivated at large scale.

Area under mango orchard was 3943 ha in 1985 and the district was then producing 25077 ton mango. By 2005, the area under mango orchard increased to 4101 ha and the production increased to 31551 ton. The yield rate increased from 6.36 ton/ha to 7.7 ton/ha. The area under banana increased from 2200 ha to 2860 ha between 1985-2005. Production per ha increased from 14.22 ton to 19.87 ton. Most impressive was the yield rate of papaya. In 1985, the yield rate per ha was 13.6 ton. In 2005 it increased to 16.4 ton.

As a part of crop diversification programme vegetables are now replacing traditional winter and summer crops (including *boro*). In 1985, 34301 ha of land in the district was under vegetable cultivation. By next 20 years the area under vegetable cultivation increased by 110.64 percent. In 2005, the district was producing vegetables in 72250 ha of agricultural land. More and more land in Gangetic alluvial region was now being utilized for production of vegetables. In 1985, the district was producing 336136 tons of vegetables. By 2005, the level of production increased to 1017887 tons.

Figure 4.4.3: Area under Vegetable Cultivation in North 24-Parganas



Among the high value products one should mention Gladiolus which has recently been introduced in the district. Tuberose and Marigold are two other varieties of flower which are being produced in large scale in some pockets of the district. There is now 400 ha of land under the production of Marigold. The district supplies 3970 tons of Marigold in the markets of Kolkata and other metropolis of India. Tuberose is being produced in 250 ha of land. The district now produces about 1800 tons of Tuberose that fetches handsome price in the markets of the metropolitan cities.

In order to facilitate marketing of the vegetables and horticultural and floricultural products emphasis is now on developing storage infrastructure through establishment of multi purpose cold storage. In the district, there are now 5 multipurpose cold storages with total capacity of about 40,000 MT. There are two such cold storages in Gaighata block. *Uttar Chabbish Parganas Krishi Samabay Himghar*, a multipurpose cold storage with a capacity of 10000 MT which is run as a co-operative venture is situated in *Bagna*, near Gaighata. There are two cold storages in Barasat.

Ecological Challenges and New Agricultural Practices

The ecological foundations such as soil, water, bio-diversity and forests which are essential for sustained advances in productivity of agriculture of the district are now under severe anthropogenic pressures. For example, the quantity and quality of the ground water which is now the major source of irrigation is deteriorating very fast. In many parts of the district, the animal population does not have a good grazing land. Technology fetishism has further aggravated the crisis. Since the agricultural economy in the district is basically a small peasant's economy, most of the peasants need sustainable market surplus in order to have immediate cash income so that they can pay for input costs which are increasing over time. Only answer to this problem for the 4.15 lakh small and marginal farmer families of the district is to depend increasingly on the technology driven enhancement of productivity. This in effect aggravates the crisis.

Good quality seeds at affordable prices are short in supply and these are hardly available in remote villages. Micro nutrient deficiencies in the soil as well as other constraints relating to soil physics need immediate attention. Even with over use of the soil, there prevails a gap between potential and actual yields. There is hardly any use of post harvest technology. Now-a-days, there is little value addition in case of vegetables, fruits and spices (consisting of tubers and medicinal and aromatic plants). What the agriculture of the district needs is value addition to the entire bio mass. This however, can only be attained by initiating an era of knowledge intensive agriculture.

In spite of all such constrains, this district is the home of some of the best farming families of the State. In the midst of many hunger and agro-ecological hot spots, there are also numerous farming bright spots. The district Agricultural Department has therefore decided to take the challenge by promoting location specific technologies. For this the district has been sub-divided into three Agro Ecological Situations (AES). AES I Includes Bongaon, Bagdah, Gaighata & Swarupnagar block (Ichhamoti basin). AES II includes the blocks in Gangetic Alluvial region (Amdanga, Barasat I, Barasat II, Barrackpore – I & II, Habra- I & II, Deganga, Rajarhat, Basirhat – I & II, Baduria block). The third AES is for the blocks in the coastal alluvial region (Haroa, Hasnabad, Minakhan, Hingalganj, Sandeshkhali – I & II blocks). Specific constraints that hinder productivity have been identified for each of these regions and the specific extension services have been identified.

Since Soil fertility is on the decline due to depletion of available nitrogen, phosphorus, potassium, sulphur and several critical micronutrients. Weeds, diseases and pests are multiplying and becoming increasingly uncontrollable particularly in Ichhamoti basin and in gangetic alluvial region. The suggested measure is that these areas should be encouraged to concentrate on low volume high value crops instead of high volume low value crops. The important crops that need replacement are boro rice and vegetable. On the other hand increase in area under Oilseeds, Pulses have been proposed. In fact, many farmers are now diversifying their production system through introduction of high value crops like flowers, unconventional vegetable spices, etc. A major change has also been noticed in crop selection; area under pulses and oilseeds has now increased. This indicates that there is a shift from traditional vegetables and up land rice cultivation.

The most of the soil of this district is rich in nutrient and weather is also congenial for growing almost all types of Horticultural crops excepting some temperate ones like Madarine Orange, Peach, Pear, Apple, Cardammom etc. Scope and opportunity for introduction of new crops varieties like high yielding and improve varieties of turmeric (var. Roma, Suguna, Sudarshana, Nimbong, Armoor etc.), Ginger, Sweet Orange (var. Kino, Musambi) Ber, Guava, Hybrid variety of Mango (var. Amrapali, Mallika etc.) Gherkind, Broccoli, Chinese cabbage, Capsicum, Gladiolus, Gerbera, Goldenrod, Tuberose etc. are also there in many parts of the district. Gradually, farmers are exercising the option of changing the traditional cropping pattern in favour of these high value products.

Changing Use Pattern of Agricultural Land

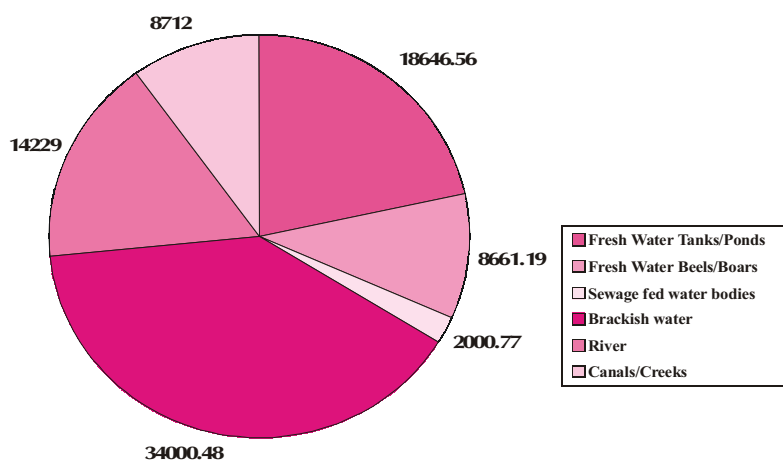
As we discuss below, the livelihood pattern of the district is changing. Agriculture is no longer the mainstay of life for the majority of the families of the district. In many areas, agricultural land is now being converted to non-agricultural land for coping with the housing problem of the population which is growing at 22.69 percent per decade. The other threat to agricultural land is coming from conversion of agricultural land to fisheries and brick kilns. This propensity to convert agricultural land to fisheries is prevalent in the Sunderban region. Agricultural productivity being low in this region, the people now tries a livelihood option in aqua-culture which is supposed to fetch better economic return. Agricultural land is also being turned into brick kilns in some of the blocks. The most noteworthy is Basirhat II, where the brick kilns cover 288 ha of land. In Baduria, which is nearer to Kolkata Metropolitan Area brick kilns now account for 231.2 ha of land. Paddy cum fishery and sole fishery account for 9000 ha of land in Haroa. The net cropped area in Haroa now is only 9868 ha. In Minakhan fishery and paddy cum fishery along with brick kilns cover an area of 7690 ha (net cropped area in Minakhan is 9938 ha). Conversion is taking place also in Basirhat II and Swarupnagar blocks. In Sandeshkhali I, the area under fisheries is 1982 ha which is 15 percent of the net cropped area of the block.

Aquaculture

About 9 percent of the population in the district depends on capture and culture of aqua-products. The percentage of fisherman in Bagdah and Bongaon blocks is 15.03 and 14.24, according to the District Offices, Department of Fisheries, North 24 Parganas. In Gaighata 10.7 percent of the population belong to the fishermen community. The number of fishermen engaged in pisciculture is 297557 in the district. Aquaculture thus provides an important source of livelihood for a considerable number of families in the district. Aquaculture is not necessarily a rural means of livelihood. Even in the municipalities of the district, aquaculture serves as a source of livelihood for a considerable number of families.

Total area under aquaculture in the district is 86250 ha. *Bheries* engaged in shrimp production by utilizing brackish water accounts for 39.42 percent of the water bodies of the district. Fresh water tanks and fresh water *beels* account for 21.62 percent and 10.02 percent of the total area under aquaculture. Canals and creeks cover 10.1 percent of the total area under fish production. There are 2000.77 ha of sewage fed water bodies, mostly in the outskirts of greater Kolkata which also produce fish in large quantities.

Figure 4.4.4: Types of Water Resources (Area in Hectare)



Different types of water resources (in hectare) in North 24 Parganas distri

Source: District Offices, Department of Fisheries, North 24 Parganas.

Total resource under aquaculture in the rural areas (in 22 blocks) is 60159.00 ha and total production in 2007-08 was 141923.68 MT. On an average therefore the rural North 24-Parganas was producing 2.36 MT of aqua-products per hectare. The highest production per hectare had been recorded in Barrackpore I block. The progressive fish farmers of this region were producing 8 – 10 MT/Ha by adopting intensive aquaculture technique on sewage-fed water bodies. In terms of total production Haroa was the leading block. In 2007-08, the water bodies in Haroa produced 19813.6 MT of fish, prawn and shrimp. Bheries of Haroa, Minakhan, Baduria and Sandeshkhali supplied 55251 MT of fish in the markets of greater Kolkata. However, the productivity per ha in these water bodies was much lower than what was realized in Barrackpore I. Productivity per ha in Haroa was 2.17 MT only. In Sandeshkhali I, production per ha was even lower (1.75 MT).

In all of the 27 municipalities of the district there are resources under fisheries. The largest area under fisheries under the jurisdiction of municipality is in Bidhannagar. In the eastern fringe of Bidhannagar there exists 1765 ha of water bodies which produce fish and prawn. Total production from these water bodies was 11472.5 MT in 2007-08. In terms of productivity also the water bodies in Bidhannagar excel others. Productivity per ha in Bidhannagar water bodies is 6.5 MT/ha which is much above the productivity in the next set of water bodies adjacent to municipalities. These water bodies are in Bhatpara and the productivity per ha there is 5.42 MT/ha. Among the other water bodies adjacent to a municipality one should mention the *beel* near Kanchrapara. It covers 205 ha of water bodies. The production in this *beel* was 861 MT in 2007-08 and the productivity was 4.2 MT/ha.

Individual farming is an important mode of production in aqua-culture based livelihood in the district. Many of the individual farmers perform fish farming in their own ponds, *beels* or *baors*. Some of the enterprising farmers also lease in water bodies for producing fish, prawn and shrimp for commercial purposes. However, fisherman co-operatives involving small and marginal fishermen also function successfully in this district. At present more than 40 primary fishermen co-operative societies are utilising the *beels* and *baors* of the district. 26 of these primary fishermen co-operatives are in Bongaon, Bagadah and Gaighata region. In recent years, small Fish Production Groups (FPG) and Self Help Groups (SHG) are also leasing in water bodies for commercial production of aqua-products. Depending upon the nature of fish culture the average profit for fresh water fish is Rs. 13.00 - Rs. 16.00 per Kg. and that for prawn and shrimp is in the range of Rs. 50.00 – Rs. 60.00 per Kg. There is a great demand for mud crabs in the international market. In SA, mud crabs are collected from saline water. The crab collectors are now being organized by the Department of Fisheries to form co-operative societies. 5 such crab societies have been formed in the SA. Among other activities one should mention the carp seed producing hatcheries. In North 24-Parganas, there are more than 140 such hatcheries.

Apart from culture and capture of aqua-products there are other stakeholders associated with aqua-culture of the district. These are fish whole sellers, fish retailers, ice factory and fish processing related workers. There are 30 wholesale fish markets in the district. The number of retail markets is 377. There are 14 Ice Plants nearby the fish wholesale markets. The number of fish processing units in the district is 10, according to the Department of Fisheries, Government of West Bengal.

There are several problems of the fishermen in the district. The *beels* and *baors*, mostly located in Bongaon, Bagdah and Gaighata blocks are very much prone to periodic floods. Almost every year most of the *beels* suffer from loss of fish and other aqua-products due to heavy rain or flood. Even in sewage fed fisheries adjacent to urban areas of the district loss of aqua-products due to heavy rain is a perennial problem.

Again, the *beels* are infested with aquatic weeds that hamper the cultural operation. The production gets hampered often due to over-silting of *beels*, *baors* and the sewage fed fisheries. A comprehensive plan involving massive investment is necessary for improving the condition of aquaculture in the district.

Many of the fishermen suffer from working capital problem. The traditional means of meeting this problem is to seek loan from informal credit market. Such loans are usually provided by the *aratdars* that is the wholesale traders. The loans are provided without any collateral security. The interest rate however, is also very high. The credit linkage in the informal market is known as the system of *dadan*. *Dadan* a credit network between whole-sellers and producers. In this system the *aratdars* provide loan to the fishermen with an informal agreement that the aqua-products would be auctioned in his (*aratder*) *arat*. The *aratdars* get a commission which is equivalent to the rate of interest on the working capital advances. The other benefit that the *aratders* get is called *Dhaltha* which is a margin on the weights of the aqua-products which are transacted in the *arats*. The fishermen are to provide more than what is actual weight of the product because of the *dhaltha* system. In recent years, the Government has taken some measures for addressing these issues. Some of the fishermen are now receiving subsidized loan from the state Sponsored Financial Agencies such as Fish Farmers Development Agency (FFDA) and Brackish water Fish Farmer Development Agency (BFDA). In the year 2003 – 2004 a new credit programme in the form of Short Term Credit had been launched by the Fisheries Department with the active involvement of NABARD. As regards weights and measures, the fishermen are yet to get any tangible benefits.

SINDRANI FISHERMEN CO OPERATIVE SOCIETY

The Sindrani Fishermen Co-operative Society, registered under the Fisheries Directorate has achieved wonderful success in fish production during last few years. The co-operative operates on a *baor* in Bagdah block, which is oxbow in nature measuring 45.48 hectare. The *baor* is connected with the river Ichamati. The co-operative society was formed in 1957. Before 1957, the fishermen in this region used to procure fishing right from the *baor* against a lump sum payment to the local Zamindars. Following Zamindari abolition the water bodies in this region were vested to the government which encouraged the fishermen to form a co-operative and procure the right to culture and capture aqua-products. The co-operative was then formed and thereafter the water bodies came under participatory management of the local fishermen. For about 35 years, this co-operative remained almost stagnated with an annual production of about 20 MT and the revenue was not more than Rs. 5 Lakhs. In 1995, this co-operative was included in a *Beel* Fisheries Development Project under the aegis of National Co-operative Development Corporation. The production increased impressively within a span of next 15 years. The total yield now is about 110 MT. The productivity increased from 0.46 MT/ha to 2.40 MT/ha. The tradition bound fishermen of these *baors* were provided with management tools and skill development training. Culture based fisheries Management was the key to the success that the poor fishermen of this locality is now enjoying. There has been a significant rise in income which brought about a perceptible change in the standard of living of the fishermen of Sindrani Fishermen Co-operative Society. The success of this society has been recognized even at the national level.

Animal Husbandry

Animal husbandry is an important complimentary source of livelihood for rural people in North 24-Parganas. In addition to providing income through animal and diary sales it has an important function for crop production by providing manure and draught power. Most of the households in the rural areas own

cattle. According to the Department of Animal Resource Development, total bovine in the district in 2007-08 had been of the order of 1009283, 26.91 percent of these bovine animals were of cross breed in nature. The percentage of cross breed is the highest in Habra I (60.72). In Gaighata also, a high percentage (57.80) of the bovine stock is crossbred in nature. In other blocks however, the percentage of crossbreed is rather low. In Bagdah, for example, the percentage of cross breed to bovine is 16.91. In Deganga, the relevant percentage is 17.39. In SA, most of the bovine stock is indigenous in nature. In Hingalganj, the percentage of cross bovine is 0.6 only. In the adjacent blocks Sandeshkhali I and Sandeshkhali II, the percentages are as low as 0.15 and 0.13 respectively. It appears that the district is placed in a disadvantageous position with respect to raising good breeds of bovine animals. The basic problem with livestock rearing is the scarcity of fodder. In SA, in particular, the peasantry fails to improve the quality of livestock mainly due to this reason.

Many of the households however, are engaged in diary farming. In a sample of 1500 rural households from which household level information had been collected for this study, it was observed that the number of households engaged in diary farming was 332 (Table 4.4.5). Out of 500 households in SA, the number of households engaged in diary farming was found to be 99. In the BA villages, the number was much higher. 156 out of 500 households reported that they were practicing diary farming. In ORA, the percentage of such households was however, quite low (15.4). Table 4.4.5 also informs that most of the families take up diary farming in the small scale. In riverine area, all the 99 diary farmers were operating with less than 3 cattle per household. In BA, out of 156 families engaged in diary farming, the number of families having less than 3 cattle per household was as high as 143. Only 5 out of 77 diary farmers in ORA in our sample were reported to own 3-6 cattle per household.

Table 4.4.5- Number of Cattle Owned by the Households

Number of Cattle in Households engaged in Diary Farming	Riverine Area	Border Area	Other Rural area
	N	N	N
Less than 3	99	143	72
3-6	0	13	5
Total	99	156	77
Households not in Diary Farming	401	344	423
Total Households	500	500	500

N – Number

Source: Base Line Survey 2008, ORG MARG

North 24-Parganas is rich in the production of fowl. There are big commercial hatcheries in Baduria, Deganga and Habra I. In other blocks also, commercial production of broilers are being taken up in increasing numbers. According to Animal Resources Department, fowl is the major poultry product of the district. In 2003, there were 5186904 poultry birds in the district. 81.61 percent of the poultry birds were fowl. Duck accounts for 18.19 percent of the poultry population. In some areas, Quails are now being produced commercially. However, the percentage of Quail, Turkey, etc is only 0.20. Most of the poultry birds are produced in rural North 24-Parganas. However, in case of Turkey and Quail the percentage of contribution from rural poultries is only 52.4. Most of the ducks are raised in rural North 24-Parganas. Percentage contribution of rural poultries in fowl population of the district is as high as 87.71 (Table 4.4.6).

Table 4.4.6: Poultry Resources in the North 24 Parganas district (as per census 2003)

Livestock Resources	Population	NO./ 1000 Person	Density No. per Sq.Km.	Share of rural population
Total Fowl	4233203	432	1054	87.71
Total Duck	943311	96	234	94.61
Other poultry bird (Turkey, Quail etc.)	10390	1	2	52.40
Total Poultry Birds	5186904	529	1290	88.90

Source: Animal Resources Development Department, 2003

If we consider fowl population per household, the share of Habra I block is the highest (13.6 per household). In Baduria, the comparable number is 12.4. The district average being only 4.6 per household, it appears that these two blocks excel others in the contribution of fowl population of the district. With respect to duck again, the share of Habra I is the highest (2.1 per household). The average of the district is 0.9 per household. The blocks in which the duck population per household is higher than the district average are Bagdah, Barrackpore I, Basirhat II, Deganga, Haroa, Hingaljanj, Minakhan, Sandeshkhali I and Sandeshkhali II.

Goat is an alternative source of animal protein. According to the Animal Resource Department, the goat population of the district was 647237. The goat population per household was the highest in Hingaljanj (1.1). In Sandeshkhali I and Sandeshkhali II, goat per household was 0.8 and 0.9 respectively. The district average was 0.6 per household. The number of goat per household was the lowest in Rajarhat (0.3 per household) and Barasat I (0.3 per household). The production of meat in the district was 47722 MT part of which was from sheep and pig. The sheep population of the district in 2006 was about 61000. The estimated number of pigs in the same year was 43740.

In terms of the availability of the animal protein in the district, one may point out that excluding egg, the availability per person per day in the district is about 15 gram. Recommended requirement per person per day being 60 gram, there exists a shortfall of 45 gram per day in the district. With respect to egg, the official information is that per capita availability per annum is 29 in North 24 Parganas. The shortfall here is as high as 154 per capita annum.

4.5 Non-Agricultural Enterprises in Rural North 24-Parganas

As we have observed, a large section of the rural households in the district is now being shifted from agriculture and allied agricultural activities to non-farm livelihood related occupations. One such area of livelihood related activity is petty business; the other is petty production (INDCAT Va). The scale of operation being small such activities are usually organized as Own Account Enterprises (OAE). Some of such businesses operate as DE (employing more than 5 workers and less than 10) and NDE (employing less than 5 workers). Official information on such enterprises is collected by National Sample Survey Organization (NSSO). NSSO does not however, provide any district level estimate. The Bureau of Applied Economics and Statistics (BAE&S), Government of West Bengal, collects district level information on number of enterprises and the employees therein. On the basis of the information provided by BAE&S, we prepared Table 4.5.1 that summarises the enterprise related data of the district vis-à-vis that of the state.

According to Economic Census, 1998, there were 349753 enterprises in North 24 Parganas. 67.23 percent of the enterprises were OAEs, i.e., the enterprises run by the family on the basis of own labour. Among the

OAE only 13283 were agricultural enterprises. In other words, out of 235449 OAEs of the district, the percentage of non-agricultural own account enterprises was as high as 94.36. In the district, most of the petty enterprises are non-agricultural in nature. Many of these OAEs are petty businesses run by the family. A shop in the village or in the nearby market place is a typical description of this petty business in rural North 24 Parganas. Some of these enterprises are small-scale production units (household industry, INDCAT Va, as in Census). The range of the products supplied by these enterprises is diverse; a village ironsmith, an earthen pot maker, a small weaver or even a local electrician belongs to this group of households. In Economic Census however, further details on the nature of activities are not ascertained.

Outside OAE, there are DE and NDE; some these enterprises also take up manufacturing activities (DME and NDME). The total number of such enterprises, known as 'Establishments' is 114304 in North 24 Parganas. Only 6362 of these establishments are engaged in agricultural activities. 107942 of these establishments are in the non-agricultural sector. Some of these establishments perform production but most of these establishments are engaged in business.

Table 4.5.1: Number of Enterprises and the Number of Employees in North 24 Parganas and West Bengal (1998)

		Agricultural			Non Agricultural			Total		
		Own-account	Establishments*	Total	Own-account	Establishments*	Total	Own-account	Establishments*	Total
Number of Enterprises	North 24 Parganas	13283	6362	19465	222166	107942	330108	235449	114304	349753
	West Bengal	136952	35819	172771	2183859	877783	3061642	2320811	913602	3234413
Number of Employees	North 24 Parganas	23600	30400	54000	288100	572200	860300	311700	602600	914300
	West Bengal	256700	146400	403100	3346000	5021900	8367900	3602700	5168300	8771000

* An enterprise which is operated with the help of at least one hired worker on a fairly regular basis.

Source: Statistical Abstract, BAES, Government of West Bengal, 2005

Compared to West Bengal as a whole, the percentage of OAE in North 24 Parganas is lower. In West Bengal 71.75 percent of the enterprises are OAE in nature. In North 24 Parganas, the relevant percentage is 67.32. Among the OAEs, the percentage of non-agricultural enterprises in West Bengal as a whole is 92.87. As we have already pointed out the percentage of non-agricultural enterprises among the OAEs in North 24 Parganas is 94.36. The implication is that the importance of non-agricultural activities as a source of livelihood is higher in North 24 Parganas.

Further information on the nature of the enterprises being absent, it was decided that the extent of involvement of the households in petty business would be probed in. Complete enumeration being infeasible, we decided that the household level questionnaire that would be canvassed for the baseline study, would include a set of questions on the nature of petty business related activities that the surveyed households might perform. At the very outset, we should report that a considerable percentage of surveyed households in rural North 24 Parganas was found to get engaged in petty business. The size of the business was small and in most cases these were OAE. Thus in SA, 12.2 percent of the surveyed households were found to earn their livelihood from petty business. In BA, the comparable percentage was 14. In ORA, 15.4 percent

of the households were found to earn livelihood from small family run business (Table 4.5.2).

Table 4.5.2: Households Engaged in Petty Business

	Sundarban Area		Border Area		Other Rural Area		Total	
	N	%	N	%	N	%	N	%
Yes	61	12.2	70	14	77	15.4	208	13.87
No	439	87.8	430	86	423	84.6	1292	86.13
Total	500	100	500	100	500	100	1500	100.00

N – Number

Source: Base Line Survey 2008, ORG MARG

4.6 Wage Employment

Agricultural labour consists of 26.20 percent of the main workers of the district, according to Census 2001. About 5.17 percent of the main workers of the district are engaged as worker in the household industry. Census 2001 reports that the percentage of other workers in the district is as high as 45.35. Again, 17.14 percent of total workers in the district are marginal workers who do not get regular employment. All the marginal workers and agricultural main workers are wage labourers. Even in household industry, there are enterprises in which a section of the workers are engaged as wage labourers. Wage labourers also account for a sizeable section of the other workers in the district.

Wage rate in the district varies according to the nature of job, seasonality and the gender division among the wage earners. In order to collect information on the earning of the wage labourers of the district, it was decided that the baseline survey would include a set of questions on the wage rate, its seasonality and possible gender variation in the wage rates. The findings are captured in summary forms in Table 4.6.1 and 4.6.2.

Table 4.6.1: Wage for men in peak season

Wage in Rs.	Riverine area		Border area		Other Rural area	
	N	%	N	%	N	%
Less than 50	119	33.1	160	45.2	139	41
51 to100	203	56.4	164	46.3	177	52.2
101 to150	25	6.9	18	5.1	13	3.8
151 to200	7	1.9	2	0.6	3	0.9
201to250	2	0.6	4	1.1	0	0
251to300	0	0	1	0.3	2	0.6
Above 300	4	1.1	5	1.4	4	1.2
Total	360	100	354	100	338	100

N – Number

Source: Base Line Survey 2008, ORG MARG

From the villages of the district (20 each in 3 areas), 1500 households were surveyed. The number of members of the household who are engaged as wage labourers was ascertained. In 500 households of SA, there were 360 male wage workers. Equal number of female wage workers was also found to exist in these households (in aggregate). In BA villages, the number of male wage earners was 354, the number of female wage earners being 352. In ORA, the number of male wage workers was 338 in the sampled households. The number of female wage earners was the same as the male wage earners (not in every family, but in aggregate among 500 households). The wage in the peak season was recorded with respect to each wage earner of the families. It was reported that even the peak wage rate was less than Rs. 50 in case of 33.1 percent of the male wage workers in SA. The condition was more deplorable with respect to women in the same region. The peak wage rate was less than Rs. 50 with respect to 80.28 percent of the female wage workers there. In BA, the percentage of male wage –workers earning less than Rs. 50 in the peak season was higher than that in SA. As the survey data indicate, the percentage was as high as 45.2. In ORA, the incidence of peak wage rate being less than Rs. 50 was observed with respect to 41 percent of the male wage workers. With respect to female, the comparable percentages are 61.86 in BA and 76.11 in ORA.

The field data also indicate that there was not a single female wage earner who could earn more than Rs. 150 per day even during the peak season. In case of male wage earners however, the percentage of wage earners earning more than Rs. 150 per day was not altogether absent. Even a peak wage rate of more than Rs. 300 was observed in case of some of the male wage earners in all the rural areas of the district. The medium level peak wage rate was however, between Rs. 51- Rs. 100 in SA and ORA. In SA, 56.4 percent of the male wage earners belonged to this wage group. In case of ORA, the percentage was 52.2. In BA, the medium peak wage might be on the lower side because the percentage of wage earners in Rs. 51- Rs. 100 wage group was 46.3.

Table 4.6.2: - Wage for women in peak season

Wage in Rs.	Sundarban Area		Border Area		Other Rural area	
	N	%	N	%	N	%
Less than 50	289	80.28	219	61.86	258	76.11
51 to100	23	6.389	12	3.39	21	6.195
101 to150	1	0.278	0	0	0	0
151 to200	0	0	0	0	0	0
201to250	0	0	0	0	0	0
251to300	0	0	0	0	0	0
Above 300	47	13.06	121	34.18	59	17.4
Total	360	100	352	99.44	338	99.71

N – Number

Source: Base Line Survey 2008, ORG MARG

4.7 Self Help Groups in rural North 24-Parganas

One of the new areas of employment generation in the district is the productive activities organized by the Self Help Groups (SHGs). Many of the SHGs are being sponsored by the district administration. Non-government initiatives are also coming up in some areas of the district. Women are participating in SHG

activities in a very big way. In this section we shall discuss the employment generation activities of the SHGs in North 24 Parganas.

In the relevant literature the term Self Help Group or SHG is used to describe a wide range of financial and non-financial associations. In India SHG usually refers to an association of individuals based on the principle of accumulating savings and taking up economic ventures by mobilizing the collective savings and utilizing the institutional credits. The special feature of the SHG is that the credits are considered as liability of the entire group. A distinction can be made between different types of SHGs according to their origin and sources of fund. Several SHGs have been carved out of large groups formed under pre-existing NGO programmes for thrift and credit.

The SHGs which are being formed now a days in rural Bengal are being promoted by the government under its District Rural Development Cell (DRDC)⁷ in collaboration with the Commercial Banks which provide the fund for small business. Basically the schemes are micro-financed schemes and at the national level, NABARD is vigorously promoting such ventures. Some of the characteristic features of the SHGs currently engaged in micro-finance are as follows:

1. A SHG is generally an economically homogenous group formed through a process of self selection based upon the affinity of its members. In West Bengal the emphasis is placed on forming SHG in the BPL families in particular.
2. Most of the SHGs are women groups with membership ranging between 10 and 20.
3. SHGs have well defined rules and by laws; it should hold regular meetings and maintain records of its activities.
4. The SHGs must maintain savings and credit disciplines.
5. SHGs are self-managed institutions characterized by participatory and collective decision-making.

The Government of West Bengal now recognizes that SHG mode of generating self-employment in the rural areas is a crucial mode of operationalising Poverty Alleviation and Social Intermediation Programmes administered by different departments of the State and the Central Government. A large number of these programmes are either facilitated or directly implemented by the PRI of the state (apart from the SHGs formed under micro finance of NABARD and the NGO initiated SHGs). It has also suggested a model structure of SHG based organizations at the state, district, block and GP level. The model structure of SHG based organizations, as outlined by the P&RD Department (March 12, 2003) is contained as Appendix 1 of this chapter.

The seventh Left Front government in West Bengal has chalked up a 15-point programme to further resuscitate and augment the SHG movement in the state. Over last five years West Bengal has witnessed the flourishing of nearly 2.5 lakh of SHGs. About a crore of people is reportedly involved with this movement. 90 percent of the SHGs, as the government claims are all women SHGs. The target is to increase the number of SHGs to 10 lakh over next five years. A separate ministry under a Cabinet ranked minister has been formed in order to facilitate this movement.

⁷ District Rural Development Agency (D.R.D.A) was transformed into District Rural Development Cell (D.R.D.C) as a wing of Zilla Parishad to act as the nodal agency in the field of implementation of the SGSY scheme at the district level (in West Bengal the changeover occurred during 1/4/2000). Apart from the district nodal agency (D.R.D.C), the block level administration, local Panchayati Raj Institutions & the Commercial Banks operating within the districts are also affianced within the programme to make it more effective

The programme was launched after converging of six poverty alleviation programmes present at that time in rural India and subsequently the said programmes had been withdrawn –

- Integrated Rural development programme (IRDP).
- Training of Rural Youth for Self-Employment (TRYSEM).
- Development of Women and Children in Rural Area (DWCRA).
- Ganga Kalyan Yojana (GKY).
- Million Well Schemes (MWS)
- Supply of Improved Tool Kits to Rural Artisans (SITRA).

All these programmes (save GKY and MWS) were formulated to extend support to the rural people for self-employment options, training, financial support and infrastructure support but had failed to provide satisfactory upshot. Keeping in view the problems and shortfalls of the previous programmes and to minimise the critical gaps observed while implementing the former ones the present scheme was formulated. Some success of the groups formed under DWCRA programme and the major failure of the IRDP encouraged the organizers of the programme to render special emphasis on the formation of the groups at large scale exclusively by the rural women. The central government shares 75 percent of the total funding of the programme as the state shares the rest.

North 24-Parganas is a leading district in the formation and development of SHGs. Under the aegis of the DRDC, the district has formed 13284 SHGs following SGSY programme of the Government of India. Most of the SHGs under this programme are women SHGs. Thus out of 13284 SHGs in the district, the number of all women SHGs is 11334. Total number of women mobilized under SGSY sponsored SHGs is 140533. As Table 4.6.1 indicates, the highest number of SHGs has been formed in Gaighata (1280) which is followed by Sandeshkhali II (1043) and Bagdah (1025). The SHG member is yet to gain momentum in Barrackpore I, Barrackpore II and Rajarhat, three blocks adjacent to Kolkata. In Barrackpore I, the number of SHGs is as low as 109. In Barrackpore II, the number is 127. In Rajarhat, there are only 130 SHGs.

DRDC sponsored SHGs are formed with a view to providing support to the BPL families in particular. In North 24-Parganas, the percentage of BPL families in the rural areas is 29.28. There is wide inter-block variation in the distribution of rural BPL families. While forming the SHGs this particular point was supposed to be given due consideration. We calculated the rank correlation coefficient between the position of the blocks in terms of the percentage of BPL families and their positions in terms of the number of SHGs formed in the block. The correlation being low (0.21), it appears that DRDC is yet to achieve this target. Going through the composition of the SHGs, one however, understands that 85.3 percent of the total groups are formed exclusively by the women of the households lying below the poverty line who are identified as the major collective fountainhead of resource as well the power of the rural society. The spread of the SHGs is yet to follow the target of covering the blocks according to their importance in terms of the percentage of BPL families. Nevertheless, the priority was for the BPL women, even if the inert-block distribution of DRDC sponsored SHGs could not maintain the strategy of placing more importance on such blocks in which the percentage of BPL families was high. One should add a point before concluding the discussions on the composition of the SHGs in the district. Apart from the people from BPL households of rural area, people living above poverty line are also being motivated to form self help groups in order to perform some economic activities. Most the groups of this category are formed by NABARD and other organisations. But the comprehensive data regarding their formation and function is not readily available for use.

Most of the SHGs are all women SHGs. The percentage of all women SHGs in the district is 85.32. In Bagdah, out of 1025 SHGs the number of all women SHGs is as high as 998 (97.37 percent). In Baduria, the percentage of all women SHG is 96.08. Most of the SHGs here have been formed by the poor Muslim

women. In Bongaon, 11130 women have been mobilized under SHG programme. The percentage of all women SHGs there is as high as 93.83. Even in Barrackpore I, Barrackpore II and Rajarhat where the SHG movement is yet to get momentum most of the SHGs are all women SHGs there. In some blocks however, the percentage of all women SHGs is lower than what one observes in Baduria, Bagdah or Bongaon. Thus, in Barasat I, the percentage of all women SHG is 62.69. In Sandeshkhali II, the relevant percentage is 70.28. In Deganga, the number of all women SHGs is 539 (out of 801 SHGs in the block). The block wise distribution of the total number of women mobilized under SHG programme indicates that more than one fourth of the women members are from three blocks in the eastern part of the district namely, Bagdah, Bongaon and Gaighata (Table 4.7.1).

Table 4.7.1: Self Help Groups under SGSY in North 24-Parganas

Name of the Blocks	Number of the total groups under SGSY	Number of women SHGs	Number of women in the groups	Percentage of Women SHG	Block percentage of total women members
Amdanga	353	302	3844	85.55	2.74
Baduria	663	637	6762	96.08	4.81
Bagdah	1025	998	11566	97.37	8.23
Barasat-I	327	205	3273	62.69	2.33
Barasat-II	486	326	4962	67.08	3.53
Barrackpore-I	109	106	1092	97.25	0.78
Barrackpore-II	127	105	1079	82.68	0.77
Bashirhat-I	506	441	5344	87.15	3.80
Bashirhat-II	546	463	5371	84.80	3.82
Bongaon	988	927	11130	93.83	7.92
Deganga	801	539	8818	67.29	6.27
Gaighata	1280	1145	13740	89.45	9.78
Habra-I	586	528	6316	90.10	4.49
Habra-II	254	218	2485	85.83	1.77
Haroa	377	270	4070	71.62	2.90
Hasnabad	767	631	7698	82.27	5.48
Hingalganj	846	773	9512	91.37	6.77
Minakhan	501	447	5878	89.22	4.18
Rajarhat	130	118	981	90.77	0.70
Sandeshkhali-I	556	524	6087	94.24	4.33
Sandeshkhali-II	1043	733	9017	70.28	6.42
Swarupnagar	1013	898	11508	88.65	8.19
Total	13284	11334	140533	85.32	100.00

Information as on March 31, 2008

Source: DRDC, North 24 Parganas

About the quality of the SHGs one may point out that many of the SHGs in the district are yet to perform satisfactorily. This is revealed in the status of the SHGs in terms of their grades. As one knows, after six months of initiation groups become eligible for first grading and through this process the progress of the

groups are assessed. After passing of the first grading the groups are entitled to have a cash credit account with the support of a revolving fund of Rs.5000 per SHG from the DRDC. In addition to this revolving fund the groups are also eligible to get the financial support of a credit amounting four time of their groups' corpus to initiate their economic activity. After another six months of passing of first grading the groups are to be graded for the second time which leads to the credit linkage and further prospect to act as an active economic and social unit.

In addition to the revolving fund to the tune of Rs 5000/- after first grading the groups are also given Second Booster Dose to the tune of Rs 10,000 and third dose of Rs 5000/-in the intervening period between first and second grading and after second grading. Basically this doses were offered to the groups who are continuing with their economic activities but are either not willing or are unable to avail the project linked Bank Loan. This aspect has long been underplayed in the district which is apparent from the figure that since 2005-06 only 1225 groups have availed themselves of this opportunity and the fund utilised under this purpose was Rs-9644596.

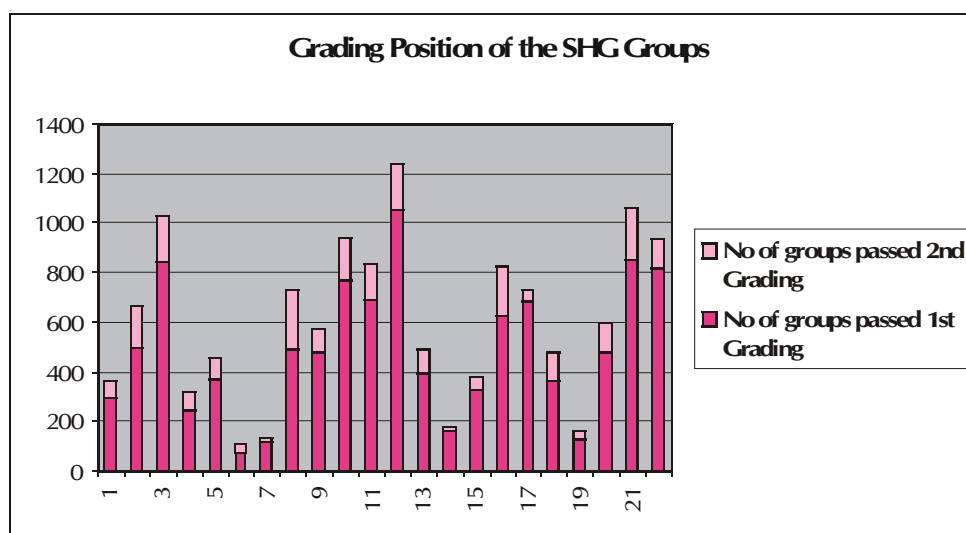
Table 4.7.2: Grade Positions and Average Savings of the SHGs in North 24-Parganas

Name of the Blocks	Number of the total groups under SGSY	No. of groups passed 1st Grading	No. of groups passed 2nd Grading	Average Savings of the Group (Rs)
Amdanga	353	294	71	9596.90
Baduria	663	496	168	12683.68
Bagdah	1025	847	185	9000.07
Barasat-I	327	246	77	14629.36
Barasat-II	486	369	83	9767.43
Barrackpore-I	109	80	27	10860.50
Barrackpore-II	127	121	15	9158.94
Bashirhat-I	506	489	248	11514.78
Bashirhat-II	546	479	91	14018.74
Bongaon	988	764	183	12341.70
Deganga	801	688	147	14523.85
Gaighata	1280	1054	186	17907.80
Habra-I	586	395	94	10442.15
Habra-II	254	164	13	15025.85
Haroa	377	331	49	3114.85
Hasnabad	767	626	200	17779.60
Hingaljanj	846	687	46	8571.63
Minakhan	501	365	119	10711.30
Rajarhat	130	124	34	9439.77
Sandeshkhali-I	556	481	122	14403.67
Sandeshkhali-II	1043	851	209	9712.56
Swarupnagar	1013	818	117	12449.87
Total	13284	10769	2484	12230.66

Source: DRDC, North 24-Parganas, 2008

It appears that a high percentage of SHGs in North 24 Parganas has passed 1st Grading. The performance has been most impressive in Basirhat I where, out of 506 SHGs 489 passed Grade I. Performance of Basirhat I is remarkable also on the ground that 248 of these SHGs have also passed Grade II. In Hasnabad, the percentage of SHGs that have passed Grade I is as high as 81.62. In Hasnabad also, the number of SHGs that have passed Grade II is quite impressive. In SA, the performance appears to be good in Sandeshkhali II as well. 851 out of 1043 SHGs in Sandeshkhali II have passed Grade I and 209 of these SHGs have also passed Grade II. In case of many of the blocks, the performance of the SHGs in terms of 'passing Grade I' is quite good but many of these SHGs could not pass Grade II. Thus in Gaighata out of 1280 SHGs, the number of groups that passed Grade I is as high as 1054. But then, the number of groups that could qualify for getting promoted to the next tier was as low as 186. In case of Bongaon and Bagdah also, the scenario remains largely the same. In the blocks nearer to Kolkata, the scenario was not different. Thus in Barrackpore II, 121 out of 127 SHGs passed Grade I. The number of SHGs that could pass Grade II was as low as 15 in this block.

Figure 4.7.1: Grading Positions of the SHGs



Source: DRDC, North 24-Parganas, 2008

Considering the position of own savings of the SHGs it appears that on an average, the SHGs in Gaighata had been in the leading position. An average SHG in Gaighata has a savings worth of Rs. 17907.80. The second in position is Hasnabad where the average savings of the SHG is Rs. 17779.60. On an average, an SHG in the district has own savings in the amount Rs. 12230.66. The average savings of the SHGs in Bagdah is much below the district average. The worst scenario is in Haroa where an average SHG saves Rs. 3114.85 only.

For financing the economically viable projects, the SHGs are supposed to get patronage from the nationalised banks. The nationalised banks provide credit to the SHGs at two levels. In the initial stage, after the completion of the first grading of the group the banks provide a credit through a cash-credit account which at the most is four times of the savings of the group. At the second level when the group is ready to pursue with the economic activity the banks provide a credit linkage loan which is at the most Rs 1.25 lakhs. In both the cases the government provide a back-ended subsidy to the SHGs. For the loan the bank charges an interest rate ranging from 9-11 percent.

A review of the role of the banks in North 24 Parganas as far as the SHGs is concerned reveal a mixed bag. In majority of the cases a bank play positive role though instances of intransigency are also there. As Table 4.7.3 indicates, there exists a wide variation among the nationalised banks with respect to the release of funds to the SHGs. Thus, UCO bank fulfilled its target to the extent of 70.92 percent in the last financial year. Indian bank on the other hand, could meet the target at 6.88 percent. SBI, the largest public sector bank, disbursed 54.09 percent of its targeted fund. Even Bangia Gramin Bikash bank which handles 4428 SHGs could meet the target at the level of 35.96 percent. It appears that the act of developing bank linkage is yet to attain a desirable level of performance with respect to the SGSY sponsored SHGs.

Table 4.7.3: Performance of the Banks in Credit Linkage to SHGs in North 24 Parganas in 2007-08

Sl. No.	Name of the bank	Total groups handled	1st Grading done	Pending for 1st grading	CC Account Opened	Pending for 2nd grading	Disbursement of fund in %
1	Bangiyo Gramin Bikash Bank	4428	3550	458	2997	1279	35.96
2	SBI	1371	1173	105	904	296	54.09
3	UBI	2304	1805	216	1493	484	54.82
4	UCO	679	528	67	443	131	70.92
5	Allahabad Bank	2175	1770	185	1438	428	31.22
6	BOI	1388	1140	94	972	232	58.19
7	CBI	147	118	29	91	53	34.16
8	PNB	309	279	17	236	77	22.78
9	Syndicate Bank	122	100	20	66	33	38.89
10	Canara Bank	160	136	18	129	51	58.54
11	Indian Bank	18	10	8	10	0	6.88

Source: DRDC North 24 Parganas, 2008

In spite of several bottlenecks, the DRDC sponsored SHGs have attained a measure of success in the district. Many of the SHGs are becoming economically viable. The viabilities attained by planning a suitable economic activity. The economic activities that the SHGs take up vary widely from group to group and from region to region. In Amdanga for example, some of the SHGs are pursuing mushroom cultivation which is quite remunerative. In Basirhat I, on the other hand, one will find a plethora of allied agricultural activities (poultry, goat rearing, etc). Vermi compost production has been taken up by some of the SHGs in Gaighata. Art work, tailoring and even catering business are being organized by the SHGs in Rajarhat. In Box below we summarise the activities of the SHGs in various blocks of the district.

Table 4.7.3.1: Activities of SGSY groups at a glance

Sl.No.	Name of the Blocks	Major activities done by the groups
1.	Amdanga	Tie and Dye, Mushroom cultivation, Tailoring, Paper bag production, goat rearing.
2	Barasat-I	Hand-embroidery, goat rearing, fruit jam & pickles, tie-dye, pottery, diversified jute work.
3	Barasat-II	Poultry, hand-embroidery, tailoring, Ari & jari work, nursing & attendant service, wood furniture making.
4	Barrackpore-I	Animal husbandry, tailoring, sola-work, poultry.
5	Barrackpore-II	Paper bag making, tailoring, animal husbandry, goat rearing, jute ornaments & jute products, ready-made garments
6	Bashirhat-I	Poultry, goat rearing, fishery & prawn culture, gauge bandage production,
7	Bashirhat-II	Goat rearing, fishery, tailoring, jari work.
8	Bongaon	Tailoring, poultry, animal husbandry, wool knitting, nursing & attendant service
9	Bagdah	Poultry, animal-husbandry, machine-embroidery, tailoring.
10	Gaighata	Vermi-compost production, animal husbandry, poultry, goat rearing.
11	Swarupnagar	Animal husbandry, mat-making, tailoring.
12	Habra-I	Spices, fruits & vegetable processing, mash room production , crystal bag making, ready-made garments
13	Habra-II	Poultry, tailoring
14	Haroa	Animal husbandry, fishery, goat rearing , ari & jari work,
15	Deganga	Kantha-stitch, hand embroidery, vegetable-dye, paper bag making,
16	Hasnabad	Honey production, piggery, horticulture-nursery, hand embroidery,
17	Hingalganj	Fishing, poultry.
18	Minakhan	Fishing, goat rearing, tailoring
19	Rajarhat	Ari work, tailoring, catering service.
20	Baduria	Bamboo works, tailoring, poultry, goat rearing, animal husbandry.
21	Sandeshkhali-I	Fishery & prawn culture, animal husbandry, poultry.
22	Sandeshkhali-II	Fishery & Prawn culture, goat rearing, poultry

Source: DRDC, North 24-Parganas, 2008

The SHGs receive infrastructural supports following the SGSY guideline by the government through the nodal agency. The fund is being used for construction of common work sheds cum training halls for self-help groups in the village, building the residential training centres, marketing outlets, cluster offices and other supportive infrastructural set-up for proper implementation of the schemes undertaken by the groups for economic activities. Apart from the SHGs other government agencies and the block-level offices also receive financial supports in constructing the infrastructures needed in connection of the implementation of the programme. In the preceding financial year (07-08) the total infrastructural involvement was Rs 21277670 from the end of DRDC. The infrastructural support spanned from sanctioning of Rs 18000 for construction of a cemented courtyard for paddy-to-rice project to providing of a vehicle for a cluster for carrying their wares to market.

The experience of the administration is that it is very difficult to sustain and strengthen the SHG movement unless the capacity of SHG & their organisation is properly built. Consequently, the formations of SHG organizations at different levels of panchayat have also to play significant roles. According to most recent concept of the department of Rural Development the sub-clusters (Upa- Sangha) will be formed at the all sansad level whereas the clusters (Sangha) will be a body to be formed at each Gram-panchayat level and the federation will be the block level apex body of SHG organisations. As the main functionaries of these organizations at different level would come out from the SGSY members more precisely the women they will have enormous scope to empower themselves.

Up to March 2008 168 sub clusters and 35 clusters have been formed in the district to act as major organizations of the groups and 1754 SHGs have been brought under the coverage of formal SHG organisations through this system. The clusters are intended to act as the main hub of economic and social activities of the groups and there are provisions for the nodal agency to extend financial, institutional and technical support to the clusters directly.

Table 4.7.3.2: Block-wise set-up of clusters & sub-clusters (March'08)

Sl. No.	Name of the Blocks	No. of sub-cluster formed	No. of cluster formed	No. of GPs covered	No. of SHG
1.	Amdanga	0	0	0	0
2.	Barasat-I	0	2	2	55
3.	Barasat-II	0	3	3	80
4.	Barrackpore-I	0	1	1	24
5.	Barrackpore-II	0	1	1	20
6.	Bashirhat-I	0	1	1	20
7.	Bashirhat-II	57	1	5	142
8.	Bongaon	12	1	2	135
9.	Bagdah	0	3	2	83
10.	Gaighata	0	0	0	0
11.	Swarupnagar	0	2	2	47
12.	Habra-I	19	5	4	196
13.	Habra-II	0	0	0	0
14.	Haroa	0	1	1	34
15.	Deganga	0	1	1	26
16.	Hasnabad	33	3	4	304
17.	Hingalganj	0	1	1	30
18.	Minakhan	0	4	2	95
19.	Rajarhat	0	1	1	23
20.	Baduria	0	3	3	73
21.	Sandeshkhali-I	47	1	6	367
22.	Sandeshkhali-II	0	0	0	0
Total		168	35	42	1754

Source: DRDC, North 24-Parganas, 2008

Apart from the recommended gram panchayat level clusters the SGSY groups have also another opportunity to expand their livelihood activities through the formation of activity cluster. The groups engaged in similar economic activity in a particular locality are appropriate to form economic clusters to enhance their bargaining power in regard to procuring of the raw materials and marketing their produces. Moreover, the clusters are also capable of evolving as an independent economic unit, and lead the groups out of the clutch of the local middlemen. Five activity clusters have been formed in the district upto March 2008. As the groups mature and the scope of their economic activity expand the number of economic cluster will also likely to go up.

Table 4.7.3.3: Activity clusters at a glance (as on March'08)

Blocks	Activity	Number of Activity Clusters
Gaighata	Paddy Processing	2
	House Dairy	1
Deganga	Kantha Stitch	1
Amdanga	Tie & Dye	1

Source: DRDC, North 24-Parganas, 2008

In order to meet the challenge from the market, the SHGs are to develop the skill in the chosen areas of activities. The state has a programme for developing trade and market related skill for the members of the SHGs. The programme provides scope for two separate categories of training for the members of the groups formed under SGSY scheme. The first category is the administrative training in group nuances with an accent on banking matters and other one is the skill development training. The first category consists of *Basic Orientation Training (BOT)*. After the formation of an SHG the members receive BOT to have awareness and basic information regarding the programme and its importance. All the members of SHGs formed under SGSY programme are entitled to this training. The next is a training known as *Handholding*. The secretary, group leader & the cashier of each group are eligible for the said handholding training which pegs on detailed information about the rules and regulations and the formation of clusters of SHGs. In the district, the DRDC performed well in training the SHG members at various levels. The quality of training has improved in the case of this district in recent years. This is due to a commendable role of the Resource Persons of the district. These resource persons are being drawn from the existing SHGs and they are mostly women. These Resource Persons are being trained in the District office on different aspects of SHG. The training programme is being looked after by the Coordinator posted at DRDC. However owing to the shortage of retired Bank Personnel adept in SHG matters the DRDC is somewhat lagging behind in the Managerial training. Table 4.7.4 summarises the status of the SHG members as regards training, orientation and also for skill development programmes.

Table 4.7.4: Number of SHGs trained under SGSY up to March'08

Name of the Blocks	Holding of Basic Orientation Programme	Holding of Skill Development Programme
Amdanga	202 (57.22)	126 (35.69)
Barasat-I	297 (90.83)	118 (36.09)
Barasat-II	320 (65.84)	251 (51.65)
Barrackpore-I	79 (72.48)	43 (39.45)
Barrackpore-II	40 (31.50)	43 (33.86)
Bashirhat-I	307 (60.67)	219 (43.28)
Bashirhat-II	391 (71.61)	114 (20.88)
Bongaon	458 (46.36)	229 (23.18)
Bagdah	434 (42.34)	300 (29.27)
Gaighata	235 (18.36)	145 (11.33)
Swarupnagar	633 (62.49)	273 (26.95)
Habra-I	291 (49.66)	144 (24.57)
Habra-II	121 (47.64)	40 (15.75)
Haroa	201 (53.32)	149 (39.52)
Deganga	298 (37.20)	179 (22.35)
Hasnabad	425 (55.41)	127 (16.56)
Hingaljanj	127 (15.01)	256 (30.26)
Minakhan	330 (65.87)	311 (62.08)
Rajarhat	67 (51.54)	44 (33.85)
Baduria	169 (25.49)	170 (25.64)
Sandeshkhali-I	542 (97.48)	338 (60.79)
Sandeshkhali-II	312 (29.91)	685 (65.68)
Total	6279 (47.27)	4304 (32.40)

Figures in the parenthesis showing the percentage

Source: DRDC, North 24-Parganas, 2008

Marketing is the major problem for the SHGs. With the direct help of the nodal agency the *swarojgaris* of the groups are bloomed to produce a wide range of products from making rice from paddy to arty jute ornaments and paper bags. These are to be marketed. While some of the SHGs are developing innovative practices in marketing their products, D.R.D.C also offers active supports while marketing their products within the district, state and country. The members of the SGSY groups profitably market their products through participation in different fairs and exhibitions organized by the government and private agencies. The groups preparing a range of handicraft items participate in different fairs all over India. Apart from participating in fairs their products are also sold out through different outlets in various places within the district and other prominent places like Swabhumi, Kolkata and Delhi-Hut in New Delhi. The total sale – figure as on March '08 stands at Rs. 2933353.

With the marketing initiative, the SHGs are now finding outlets for marketing their products. The SHGs are attending regional fairs, state level fairs and even national level fairs. The extent of revenue generation by attending district, regional and state level fairs is being presented in a summary form in Table 4.7.5.

**Table 4.7.5: Marketing of SGSY SHG (North 24-Parganas) products in Fairs (Year 07-08)
Regional Fairs (all over India)**

Sl. No.	Name of the Fair /Exhibition	Total sale (in Rs.)
1	Kolkata SARAS Salt lake	350000
2	Mahalaxmi SARAS, Mumbai	82075
3	IITF, New Delhi	246000
4	SARAS Gallery(Permanent Outlet), New Delhi (2 phases)	70250
5	Sisir SARAS, Bhubaneswar	27170
Total		775495

Source: DRDC, North 24-Parganas, 2008

State Level fairs

Sl. No.	Name of the Fair /Exhibition	Total sale (in Rs.)
1	Narayangarh Utsav, West Medinipore	5000
2	Koyela Vihar, Kolkata	189141
3	Chalo-Jai, TTF, 07, Kolkata	20505
4	Vastram, 07, Deshapriya Park , Kolkata	40350
5	Angana Utsav Barasat	21000
6	Fair Organized by AIWDA at EZCC, SaltLake, Kolkata	73900
7	Krishi Mela, Chakdah, Nadia	4500
8	Poush Mela, Santiniketa, Birbhum	15000
9	Madhusudan Mancha Mela, Dhakuria, Kolkata	73480
10	Vidyasagar Mela, Kolkata	39577
11	Second East Himalayan Expo.Siliguri	8000
12	Hasta-silpa mela, February, 2008	75717
13	Exhibition Organized by Roop Kala Kendra	35500
Total		601670

Source: DRDC, North 24-Parganas, 2008

District Level Fairs

Sl. No.	Name of the Fair /Exhibition	Total sale (in Rs.)
1	Banga Sanskriti Utsav, Barasat, (8-15March'08)	4500
2	Panihati Mela (26/12/07to3/1/08)	5000
3	Sundarban Grameen Mela	3400
4	Banipur Lok Utsav	11500
5	Ichamati Mela	4600
6	Bashirhat Mela(30/11/07-9/12/07)	11950
7	Sasthya-Siksha O Swanirbhar Dal Mela, Vidyasagar Stadium (23-25 Jan'08)	5680
Total		46630

Source: DRDC, North 24-Parganas, 2008

The SHGs are also getting patronage of various government departments. From training kit to school kit and uniform to supply of rice and pulses to various ICDS projects of the district the involvement of the SHGs is being encouraged by the governments.

In a situation of jobless growth in the organised sector of the economy, a vast workforce in the countryside can hardly find the proper means of livelihood. This is so particularly when agriculture cannot absorb the growing rural workforce in the country. The small scale enterprises based on labour intensive technology might provide some relief to the unemployed and under-employed adults in the country. But then, no individual without the necessary capital base can hardly think of taking up such a venture. Formation of a group and mobilisation of resources at their disposal, however insignificant that might be, might provide the basis of developing an alternative. With proper support from the state and the commercial banks, the groups might turn out to be viable economic units. This is the essence of SHG movement. The experience of the SHG movement in North 24 Parganas does provide evidences in favour of this argument. Needless to say, the experience of SHG movement in the district is not one of unmixed success. In fact, the story of SHGs in the district is of a mixture of stupendous success and incredible failure. While the groups are basking under the new found glory of activity and self-reliance many of them are at a nadir searching way out of the labyrinth of private loan and repayment. A combination of glamour and grime thus coexists. Nevertheless there are reasons to believe that SHGs have come to stay in the life of the ordinary people of the district.

Box 1**Sopan Kantha Stitch Cluster, Deganga:**

A sizeable portion of the women-folk of Deganga Block is traditionally engaged with the activity of making Kantha Stitch items. They used to get their *Kam-Selai* (stitching assignment) from the local *Karigars* (the middlemen). They could hardly earn Rs. 10 to Rs 20 per day by stitching the products given by the middlemen. These women did not have any idea about the whole procedure of making of an item of Kantha stitch. Neither they were able to draw the design by their own nor did they have any knowledge of combination of colours to prepare a product exquisitely. The outside trade was a totally a distant dream to them. After formation of the groups a major section of the members they got the opportunity to receive initial trainings at their own G.P to perform the stitching work more efficiently. But their unending enthusiasm propelled the block & Panchyat Samity level administration to think in other way. With the active initiative and assistance from the district level administration a project was designed by the National Institute of Fashion Technology (NIFT) to hone their skill so as to spruce them up for the entire procedure of the making of their products. A core group of 60 women from SHG members have been formed aiming to perform all the activities related to the business of Kantha Stitch items. The core group members are selected from the enthusiastic self- help group members. They were trained for computer literacy at the Block Youth Computer Centre as a preparatory stage of their training as designer. A rigorous residential training that was arranged at Satyajit Roy institute, Rajarhat, by the proficient faculty members of NIFT in two phases, not only helped them to improve their skill as designer but also made them self-reliant to a great extent concomitantly. After completion of their training they formed their own cluster – SOPAN (the Stair) to run their business themselves freeing them completely from the grip of money-lenders. The nodal agency (DRDC, North 24 Parganas) supported their activity through promoting their products at the sale counters run by the DRDC, providing financial assistance for construction of their own office and purchasing three computers with requisite software for their exclusive use at the premises of the block office of Deganga.

Soapan consists of 40 SHGs with 683 members and 246 members of them i.e. more than 35% have already received training on the particular activity to improve their skill in stitching works by the specialized trainers at the block level. They started with Rs. 72000/- accumulated through the contribution from the member- SHGs initially. With the expansion of their business they further collected Rs.40000/- to buy the raw materials. Several supports have also been provided to make them more efficient & confident while purchasing the raw materials and selling their products. About 500 pieces of Sari, 10000 pieces of Kurtas & 5000 pieces of Churidars are ready available at their counter for sale. With the active assistance from the block and district officials they are operating two outlets in the block itself, one within the block premises and the other one at Chakla, the famous pilgrimage located at the block. They are regularly participating in all the Fairs & Exhibitions within the district, state & abroad. Some of the members of the core groups also received the training on retail management conducted by Dr. Reddy's Foundation at the state level which categorically helped them largely to pop-up their level of confidence and to attain positive attitude towards facing the hurdles on the way of their success. A buyer-seller meet will be organized at the valedictory session of the training programme with the active assistance from NIFT to provide wider opportunity of the marketing to the members of the cluster.

Box 2**Dharampur Paddy Producers Cluster of SHGs:**

It is almost a routine work to the women members of the poor rural families to make rice from paddy. They are quite familiar to make their own rice in order to save their money. The SHG members of Dharampur-I G.P of Gaighata block thought in a bit different way to earn their means of livelihood through their own typical routine work. In order to take up an economic activity after passing 1st grading they settled to make rice from paddy as a means of their livelihood in a compact manner i.e. by being engaged in same economic activity. One hundred twenty one members of 10 SHGs formed an activity cluster to start their business on 1st December '04. They received infrastructural support from the DRDC for their work—shed initially & afterwards they were also provided a support of a credit linkage above Rs. 25 lakhs. They also received a loan of Rs. 30 lakhs from the department of Panchayat & Rural Development to run their business smoothly. They repaid about half of the loan received from P&RD. Each member of the cluster now receives about Rs. 400/- per month after repaying their loan. Now all the groups under this cluster have already passed second grading. The cluster supplies the rice for the ICDS project of Gaighata. Their persistent enthusiasm made the nodal agency to expand their area of support and make financial arrangements for buying a mini-truck for them while supplying their produces to the ICDS project and different outlets throughout the district. The cluster produces 350 metric ton of rice per month. At present the group-members of the cluster have shaken off their glumness as they have now become able to feed their family members in a stable manner.

Box 3**Dharampur Chal Utpadak Swanirbhar Sangha:**

The success of Dharampur Paddy Producers Cluster of SHGs lead to the formation of another activity cluster in the same trade in the same G.P on 1st May 2006. All of them are also traditional workers who are familiar with this activity. The cluster includes 126 members from 10 SHGs and the cluster has a capacity to produce about same as the other one. The cluster also shares the supply of rice to the ICDS Project of the concerned block along with the other cluster. The rice produced by the cluster is also marketed through different outlets run by the self-help groups of the districts & local markets. Both the clusters share the mini-truck provided by DRDC of North 24 Parganas while supplying their produces as per requirement of the market. All the members are traditionally skilled to perform the works. The cluster has the credit linkage of 27.5 lakh to run their business & all the groups under the cluster already passed second grading.

Box 4

Tillotamma Sangha:

The SHGs of Gaighata block formed another activity cluster to perform the tailoring work. One hundred & fifteen members of nine SHGs who are traditionally engaged in the tailoring activity formed the cluster in last year (2007). The work order to supply school uniform for the Sishu Sikshha Mission through DRDC helped them to come together & to form the cluster. They initially accumulate the capital of Rs. 90000/- to procure the raw material & received a cheque of Rs. 150000/- instantly after supplying the SSM order. The success of the initial attempt leads them to step forward & all the groups under the cluster passed 2nd grading. Now they are producing 7000 dozens of blouse & petticoats and 5000 dozens of frocks per month. Apart from this they also supply uniforms to the local schools. But they are yet to become free from the clutch of the local Mahajans, totally though they gained the better burgeoning after the formation of the cluster. The cluster already has 55 skilled members who urgently require further training to do their cutting work more meticulously without any external help. They are presently working to supply the pocket board for the different training programmes of UNICEF. Though all the members received initial training on tailoring the fervent members are now keenly looking for advanced training on cutting on fashionable apparel which can widen the scope better marketing of their product.

CHAPTER - 5

Chapter 5

LIVELIHOOD OPTIONS IN URBAN NORTH 24 PARGANAS

5.1 Introduction

As we have already pointed out, North 24 Parganas is a highly urbanized district. The percentage of urban population in the district is as high as 54.3. While discussing the livelihood options of the people residing in the district, it is necessary that the livelihood options in the urban part of the district should receive special attention. Urban North 24 Parganas is a mixed amalgam of two distinctly different types of towns. The towns near the river Hooghly which are adjacent to Kolkata, had been the seats of modern industries since the late colonial period, when the British industrialists were opening up large scale units of production in Jute, Cotton Textile, Engineering and various Consumer goods. The towns in the eastern part of the district, on the other hand, hardly have any industrial population. Urban sources of living in these areas were basically urban services, trade and commerce, transport and communication and, in some cases, small-scale industries. The urban explosion that the district is experiencing now-a-days had not been caused by a new wave of industrialization. Urban services and other activities in the tertiary sectors are the major sources of livelihood for the people in these urban settlements. In this Chapter, we shall discuss the nature of the livelihood related activities of the urban part of this district. Our discussion will be based primarily on the available secondary information. However, the baseline study that we mentioned earlier (see Chapter 4), also collected some information from the field survey pertaining to the livelihood pattern of the households in urban North 24 Parganas. The information have been collected both from slum and non-slum part of urban North 24 Parganas. 1100 households, 600 of which were from non-slum UFS blocks and the remaining 500 from slum UFS blocks of the NSSO, constitute the sample from which the information had been collected. The households were selected in a statistically regular way. We shall first present a profile income sources in urban North 24 Parganas on the basis of the findings of the baseline study.

5.2 Livelihood Options in urban North 24 Parganas

While canvassing the questionnaire, the baseline study aimed at capturing the details of income sources for the surveyed households. Each household was asked about their sources of income and a maximum of three sources were recorded for each of the households. The findings, as reported in Table 5.2.1 indicate that in urban North 24 Parganas income from salaries from private sector had been the single most important source of livelihood for the surveyed households. In fact, in slum UFS blocks this was found to be one among three major sources of income with respect to 49.2 percent of the households (Table 5.2.1). In non-slum areas the percentage was lower 28.5, but even in the non-slums this was one of the three major sources of income with respect to the highest percentage of households. Employment as skilled wage labourers was found to be a major source on income with respect to 25.7 percent of the non-slum households; for the slum, the percentage was 32. Employment in the state sector was also an important source of livelihood in urban non-slum areas. Predictably, such occupations were not reported much in the slum areas of the district. Retail business and Petty Trading, mostly from Own Account Enterprises did also exist as an important source of livelihood for a substantial number of the visited households. Some of the sources of livelihood which are typically rural in nature (farming and fishing) also found to exist in some of the households in the urban areas of the district.

Table 5.2.1: Distribution of Households based on sources* of Income (Urban North 24 Parganas)

Income Source	Non slum area		Slum area	
	N	%	N	%
Farmer/ cultivator/share croppers	2	0.3	5	1.0
Animal husbandry/ dairy	7	1.2	3	0.6
Agricultural labourers	3	0.5	4	0.8
Skilled wage labourers	154	25.7	160	32.0
Semi/ unskilled wage labourers	106	17.7	95	19.0
Salaried employee (private sector)	171	28.5	246	49.2
Salaried employee (government sector)	97	16.2	30	6.0
Owner of trading/retail business from fixed premises	87	14.5	53	10.6
Owner of petty trading/retail business without fixed premises	83	13.8	67	13.4
Fishing	0	0	2	0.4
Non-Timber Forest Produce Collections	0	0	0	0
Remittance	17	2.8	11	2.2
Artisan	2	0.3		
Owner of small-scale manufacturing unit (SSI)	9	1.5	1	0.2
Owner of medium to large scale manufacturing unit	2	0.3	0	0
Self employed professional	28	4.7	12	2.4
Other self employed workers	35	5.8	15	3.0
Home based workers (production and sales)	2	0.3		
Retired /Elderly (unable to work)/Pension	68	11.3	18	3.6
Total	600	—	500	—

N – Number

* One among three major sources; sum of the percentages will not be 100.

Source: Base Line Survey 2008, ORG MARG

5.3 Employment in Organised Industries

According to BAE & S, there had been 13465 registered factories in West Bengal in 2005. The number of registered factories in North 24 Parganas had been 3437. North 24 Parganas thus, accounts for 25.53 per cent of total registered factories in West Bengal. As the data indicate, the share of North 24 Parganas, South 24 Parganas and Howrah, three adjacent districts of Kolkata in the total number of registered factories in West Bengal was 67.22 percent. Among these districts again, North 24 Parganas, has the largest share. As one knows, these registered factories are concentrated basically in the old municipal towns of the district in the eastern bank of river Hooghly (Naihati, Bhatpara, Barrackpore, Kamarhati, Panihati, etc). These are traditional industries such as cotton and jute textile, chemicals and chemical products, fabricated metal products and manufacture of machinery and equipments. Manufacture of cotton and jute textile taken together account for 67305 employees in the organized industries of the district. Manufacture of chemical and chemical products (NIC code 24), engages 7797 workers and manufacture basic metals (NIC code 27) account for the employment of 5935 employees. In terms of employment, manufacture of machinery and equipments not elsewhere classified (NIC code 29), manufacture of electrical machinery (NIC code 31) and manufacture of transport equipments (NIC code 35) are the other major industries in urban North 24

Parganas. All industries included, there are 119687 employees in the organized industries of the district. In terms of fixed capital, the district accounts for an investment of Rs. 1747.05 crores. The annual value of gross output in 2005 was Rs. 8380.27 crores and the net income generated from the organized industries was Rs. 785.81 crores. In terms of fixed capital manufacture of basic metal was in the leading position. In terms of employment generation however, cotton and jute textiles had been the leading sector. If one considers the gross value of output the leading sector in urban North 24 Parganas was manufacture of basic metals. In terms of net income however, cotton and jute textiles had still been the leading sector. The data however, indicates that there were at least three sectors in which the net income had been negative in 2005.

Table 5.3.1: Major Industrial Units and Amount of Fixed Capital, Employees and Income

NIC '04 Code	Fixed Capital Rs. Lakhs	No. of Employees	Values of Output Rs. Lakhs	Net Income Rs. Lakhs
15	14052	3210	78013	3755
16	1882	1242	3374	388
17	35905	67350	162067	35598
18	1747	828	13155	1528
19	1599	926	13580	2187
20	299	451	2114	199
21	3214	2397	13278	1266
22	7581	2969	24423	-18800
23	31	62	640	40
24	16322	7797	64169	7687
25	12740	3126	19927	-3844
26	450	1449	3664	240
27	39331	5935	211674	14364
28	2445	3516	51097	2254
29	6040	4243	45186	3841
30	253	118	603	52
31	14242	3100	44482	8955
32	2265	1845	13147	1667
33	1594	455	8069	1158
34	704	502	2394	-248
35	9871	6619	53180	15239
36	828	325	2505	186
50	486	777	3446	643
63	428	174	532	-21
93	46	48	48	2
Others	350	223	3260	245
All Inds	174705	119687	838027	78581

Note: 'Others' group includes NIC '04 code: 52,72,74,92

Source: Districts Statistical Handbook, North 24 Parganas, 2006, BAE & S, Government of West Bengal, Table 8.3, pg-74

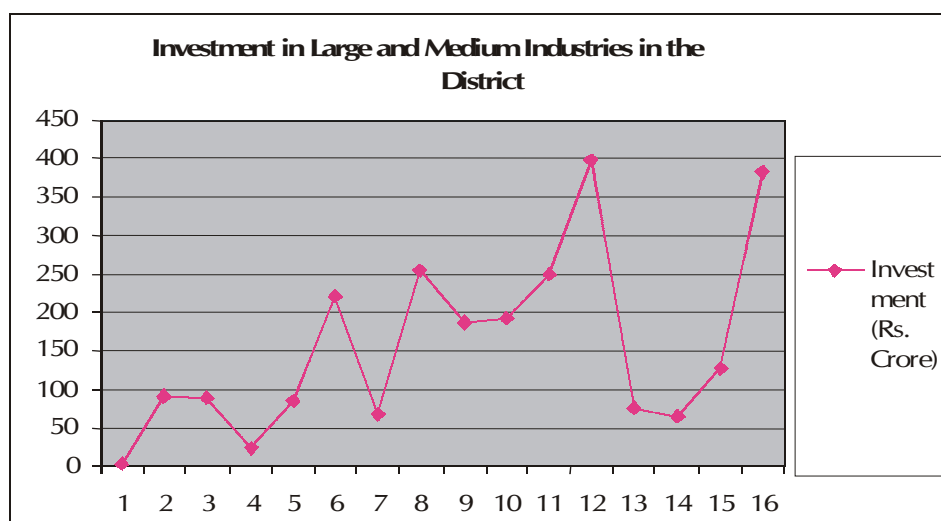
NIC codes: 15- Manufacture of food products and beverages, 16- Manufacture of tobacco products, 17- Manufacture of textiles, 18- Manufacture of wearing apparel, dressing & dyeing fur, 19- Tanning and dressing of leather, Manufacture of luggage, handbags, saddlery, harness and footwear, 20- Manufacture of wood and products of wood and cork, except furniture; Manufacture of articles of straw and plaiting materials, 21- Manufacture of paper and paper products, 22- Publishing, printing and reproduction of recorded media, 23- Manufacture of coke, refined petroleum products and nuclear fuel, 24- Manufacture of chemicals and chemical products, 25- Manufacture of rubber and plastics products, 26- Manufacture of other non-metallic mineral products, 27- Manufacture of basic metals, 28- Manufacture of fabricated metal products except machinery and equipment, 29- Manufacture of machinery and equipment n.e.c.*, 30- Manufacture of office accounting & computing machinery, 31- Manufacture of electrical machinery and apparatus n.e.c.*, 32- Manufacture of radio, television & communication equipment & apparatus, 33- Manufacture of medical, precision & optical instruments, watches, clocks, 34- Manufacture of motor vehicles, trailers and semi-trailers, 35- Manufacture of other transport equipment 36- Manufacture of furniture; Manufacturing n.e.c.*, 50- Sale, maintenance & repair of motor vehicles & motor cycles; Retail sale of automotive fuel, 52- Retail trade, except of motor vehicles & motor cycles; Repair of personal and household goods, 63- Supporting and auxiliary transport activities; Activities of travel agencies, 72- Computer related activities, 74- Other business activities. Public administration and defence; Compulsory social security, 92- Recreational, cultural & sporting activities, 93- other service activities.

*n.e.c. = Not elsewhere classified

New investments in large and medium industries was not quite promising in first four years of 1990s. Investment in 1991 was only Rs. 3.51 Crs. In 1992 however, the district was endowed with new investments worth of Rs. 91.16 Crs. The investment scenario improved in 1996 when there was an investment in the order of Rs. 222.01 Crs. The other years in which there had been good amount of investment in large and medium industries in the district were 1998, 2001, 2002 and 2006. New investments in 2002 had been Rs. 398.01 Crs, which was the highest in recent years.

In spite of such investments in medium and large industries the employment scenario in the organized industries did not improve significantly. This is largely due to the fact that many of the industrial units in urban North 24 Parganas suffer from industrial sickness. In fact, industrial sickness has become almost a perennial problem in the industrial belt of the old urban centers of the district. The number of closed units in the district is 123. The largest number of closed units is situated in Barrackpore. Total land occupied by the closed units is 1973.16 ha (according to Land and Land Reforms Department, North 24 Parganas).

Technological obsolescence is the basic reason behind industrial sickness in traditional industries. The reluctance on the part of the industrialists for taking up modernisation in a big way aggravates the crisis. In many cases, the land under the possession of the old units are now being parceled out for business in real estates. Large scale 'suspension of work' causing job loss for the industrial workers has become a serious problem in the old industrial centers of the district. A large section of the workers are now being compelled to find out alternative sources of livelihood. This is causing a change in the livelihood pattern in these areas. Many of the jobless workers are trying to meet both ends by opening up small retail shops in the same locality. From street vending to odd jobs in the unskilled sector are the new areas that this section of the industrial workers is trying to adjust with.

Fig: 5.3.1 Investment in Large and Medium Industries in the District

Source: WBIDC Report 2006-07

Note:1-1991, 2-1992, 3-1993, 4-1994, 5-1995, 6-1996, 7-1997, 8-1998, 9-1999, 10-2000, 11-2001, 12-2002, 13-2003, 14-2004, 15-2005, 16-2006,

Although the investment in large and medium size industries had not been quite promising, the new feature is that investment in the SSI sector of the district is increasing over time. Total investment in the SSI sector in the comparable years had definitely been much higher than what the district received as investment in large and medium size industries. Thus in 1994, total investment in large and medium size industries in the district had been Rs. 24.36 Crs. Investment in the SSI sector in the same year was Rs. 405.22 Crs. The highest investment in the large and medium size industries that the district received in the recent past was in 2002. The investment in this sector in

Table 5.3.2: Investment in SSI Sector in the District since 1994-95

Year	Investment (Rs Lakh)
1994-95	405.22
1995-96	450.03
1996-97	1201.3
1997-98	1023.79
1998-99	664.91
1999-2000	1052.59
2000-01	1070.87
2001-02	1122.18
2002-03	1235.25
2003-04	1084.16
2004-05	1467.74
2005-06	1363.78

Source: WBIDC Report 2006-07

that year was Rs. 398.01 Crs. In SSI sector the investment in the same year was Rs. 1236.25 Crs. The investment in the SSI sector of the district was Rs. 1467.74 Crs. in 2004-05. The investment was in the order of Rs. 1363.78 Crs. in 2005-06 according to the report of the West Bengal Industrial Development Corporation.

As a result of very high investment in the SSI sector, the nature of employment in the non-agricultural sector of the economy is changing fast. Small manufacturing units, many of which are non OAE in nature, are emerging as the sources of employment in urban and semi-urban areas of the district.

5.4 Urban Enterprises in the District

Economic Census provides information on economic activities specially for unorganized sector. The latest Economic Census (1998) provides district level information on agricultural as well as non-agricultural activities under OAE and Establishments (enterprise operating with the help of at least one hired worker on a fairly regular basis). Such data are available for the urban areas as well. We shall discuss now the nature of urban enterprises in the district on the basis of the latest Economic Census. But before we consider the official data, we would report the findings of the baseline survey on the extent of the spread of petty business in the urban areas of the district. Among 600 surveyed households in the non-slum areas of the UFS blocks of the districts, the number of households engaged in petty business was 125. Thus about one fifth of the households in non-slum UFS blocks earn their livelihood from petty business, according to the baseline survey. In the slum area also, petty business was an important source of livelihood for as many as 106 out of 500 surveyed households. (Table 5.4.1).

Table 5.4.1- HH engaged in petty business

	Non slum area		Slum area	
	N	%	N	%
Yes	125	20.833	106	21.2
No	475	79.167	394	78.8
Total	600	100	500	100

Source: Base Line Survey 2008, ORG MARG

HH — House holds

N – Number

In urban areas of the district there have been 185758 enterprises. These were mostly non-agricultural enterprises. 53.69 percent of these enterprises were petty OAEs. The number of non-agricultural enterprises was 82770. These were the enterprises which were employing at least one hired labour fairly on a regular basis. As one gets from Table 5.4.2, most of the non-agricultural establishments of the district are located in its urban areas. With regard to OAEs, the scenario is different. 57.64 percent of the OAEs are situated in the rural part of the district. In the non-agricultural establishments, the number of employees was 4.418 lakh at the time of the fourth Economic Census. In the OAE, the number of persons earning livelihood was 1.392 lakh, most of these people were in non-agricultural OAEs. Economic Census also reveals that the non-agricultural establishments did employ female workers as hired labour. The percentage of female labour was 11.93 in 1998. There are indications that the female WPR in unorganized enterprises is increasing in a noteworthy way in the recent years.

Table 5.4.2: Number of Enterprises and Employees in Urban areas in the District (1998)

		Establishments			Own Account Enterprise			Total		
		A	B	Total	A	B	Total	A	B	Total
Number of Enterprises	Urban	3255	82770	86025	4168	95565	99733	7423	178335	185758
	Total	6362	107942	114304	13283	222166	235449	19645	330108	349753
Number of Employees*	Urban	167	4418	4585	80	1312	1392	247	5730	5977
	Total	304	5722	6026	237	2881	3118	541	8603	9144

A: Agricultural, B-Non-Agricultural

* In case of OAE, number of persons engaged. Figures in hundred

Source: District Statistical Handbook, BAE&S, Government of West Bengal, 2006

Wages in these establishments usually remain depressed. Even in OAEs, earning of the enterprise owner remains poor. In order to look into the matter, the baseline study in urban slums and non-slums contained a set of questions on earning per day of the persons reported to earn from wage employment. There were 358 such persons in non-slum UFS blocks, half of which were female. Among the male wage earners in non-slum UFS blocks, 32 reported that they were earning less than Rs. 50 per day during the peak season. The modal class however, was Rs. 51-Rs.100. 102 out of 179 male wage earners in non-slum UFS blocks belonged to this wage-earning category. Very few persons were earning more than Rs. 150 per day even during the peak season. There were however, 9 male wage earners included in the sample who were earning more than Rs. 300 per day.

Among the female in the non-slum UFS blocks, the highest number of wage earners reported in the sample were earning less than Rs. 50 per day even during the peak season. The distribution of wage earners was also highly skewed. Thus, 75.42 percent of the 179 female wage earners in non-slum UFS had been in the wage group 'less than 50 per day'. The percentages in next two classes were almost negligible. There was no female wage earners in the earning groups, Rs. 151-Rs. 200 and Rs. 201- Rs. 250 as also in Rs. 251- Rs. 300. There were however 36 female wage earners (20.11 percent) who were earning more than Rs. 300 during the peak season.

In the slum areas, the daily wages for 57.2 percent of the male wage earners was in the range Rs. 51-Rs.100 (Table 5.4.3). The women were usually earning less than the male. 59.2 percent of the female wage earners reportedly earn less than Rs. 50 per day even during the peak season. In the slums, 16.4 percent of the male wage earners in the sample were earning in the range Rs101-Rs150 during the peak season. The percentage of women in this wage earner category was only 1.4 (Table 5.4.4). The field data however, report an interesting feature. 33.3 percent of the female wage earners in the slum areas were earning more than Rs. 300 per day during the peak season. The percentage of such privileged wage earners among the male was only 1. We should however, add that this is what was found in the sampled households. Cross verification was not done and therefore we cannot vouch for the robustness of this finding.

Table 5.4.3: Wages per day for men in peak season in Urban North 24 Parganas

Wage in Rs.	Non slum area		Slum area	
	N	%	N	%
Less than 50	32	17.9	43	21.4
51 to100	102	57	115	57.2
101 to150	27	15.1	33	16.4
151 to200	6	3.4	7	3.5
201to250	3	1.7	1	0.5
251to300	0	0	0	0
Above 300	9	5	2	1
Total	179	100	201	100

Source: Base Line Survey 2008, ORG MARG

N — Number

Table 5.4.4: Wages per day for women in peak season in Urban North 24 Parganas

Wage in Rs.	Non slum area		Slum area	
	N	%	N	%
Less than 50	135	75.42	119	59.2
51 to100	7	3.911	11	5.473
101 to150	1	0.559	3	1.493
151 to200	0	0	1	0.498
201to250	0	0	0	0
251to300	0	0	0	0
Above 300	36	20.11	67	33.33
Total	179	100	201	100

Source: Base Line Survey 2008, ORG MARG

N — Number

We do not have the field data on the earning of the OAEs. In this category, there is a plethora of income generating activities. From small wayside stalls, vending in the footpath, selling from shops in the municipal markets to small producing units within the household premises (Bidi making, preparing carry bags, tailoring under putting out system, etc)-there are innumerable activities from which a large section of the households in urban North 24 Parganas earn their livelihood. The basic reason for performing such activities is not that the OAE owners usually earn more than what one earns from employment in organized industry and services. The main reason for taking up such ventures that there does not exist employment opportunities in the organized sector of the economy. One may therefore infer that the average earning of the OAEs would be in the range of what an average wage earner in the informal sector of the urban economy of the district expects to earn.

Some of the OAEs are now being organized under urban SHGs. Among the urban households that were included in the baseline survey, the incidence of getting organized under SHG was observed in some of the cases. Out of 600 households in non-slum UFS blocks, the number of households in which one member was in a local SHG was as high as 40. The SHG movement is also spreading in the slum areas of the district. However, it appears that the movement is yet to peak up there. Out of 500 households in the slum UFS blocks, only 12 were included in the SHGs.

5.5 Employment in Government Services

A major source of employment in the organized sector is the government services in the district. According to BAE&S, Government of West Bengal, there were 29682 government employees in the district (as on 31.05.02). 25434 of these employees were

Table 5.5.1: Number of Persons in Government Services and their Emoluments: North 24 Parganas and West Bengal

District/ State	Emolument Group (Rs. Per month)									Total
	Up to 5000	5001- 6000	6001- 8000	8001- 10000	10001- 13000	13001- 16000	16001- 19000	19001- 22000	22001 and above	
North 24 Parganas	2402	4963	10067	7161	3094	947	486	358	204	29682
West Bengal	47828	75449	143364	93967	44588	14910	7494	5563	4466	437629

Source: Statistical Abstract, BAE&S, Government of West Bengal, 2005

male. The percentage of female employees was as low as 14.31. One may add that gender disparity in government employment is not specific to North 24 Parganas. In fact, among 437629 government employees in West Bengal, the number of women employees was as low as 65186 (14.9 percent only).

The district accounted for 6.78 percent of the government employees in West Bengal. Among the government employees there was wide variation in the level of earning. In fact, among the Government employees, 26.24 percent were earning less than Rs. 10,000 per month. Total emolument per month was not more than Rs. 19,000 per employee with respect to 46.02 percent. The other important point to be noted is that 8.09 per cent of these employees were earning not more than Rs. 5000 per month as we consider the information of the district. The comparable percentage of state level was 10.93 (Table 5.5.1, row percent). In the next emolument group, The percentage of the district was almost the same as in West Bengal. For the next 6 emolument groups, the district percentages were almost near the state percentages. However, for the highest income category, the district percentage was much lower than that of the state.

CHAPTER - 6

Geographic Profile



District : North 24 Parganas

- PHC — Primary Health Centre
- BPHC — Block Primary Health Centre
- RH — Rural Hospital
- SGH — State General Hospital
- SDH — Sub Divisional Hospital
- DH — District Hospital

Chapter 6

HEALTHCARE SERVICES IN THE DISTRICT

6.1 Introduction:

In this Chapter we shall discuss the health care services in the district. The Chapter has been organized in the following way. In section 2, we shall describe the health care infrastructure, both private and public, in the district. From health sub-centre to district hospital, there is an elaborate arrangement for providing state sponsored medical services to the people at large. To what extent the medical need of the people could be met by the government health infrastructure, is an issue which we shall take up for consideration in this section. The facilities available and the nature of diseases attended will also be discussed in this section. The endemic diseases, the immunization programme and other intervention programmes of the state health services will be taken up for discussion in section 3 of this report. One universally recommended preventive measure for various endemic diseases is to create provision for safe drinking water and proper sanitation programme. The status of the district in this respect would be discussed in section 4. Section 5 discusses a specific water related problem of the district, namely, arsenic contamination in some of the blocks of the district. In section 6 the report will contain a discussion on maternal and childcare related issues with a focus on the problem of malnutrition that a section of the children in the district suffers from.

6.2 Healthcare Infrastructure in the District

The state run health care infrastructure includes one district hospital at Barasat with the bed strength of 500. There are 4 sub-divisional hospitals¹, one each at 4 sub-divisional headquarters of the district. The combined bed strength of the sub-divisional hospitals is 850 (Table 6.2.1). There are also 8 state general hospitals² and 7 rural hospitals in the district. There is hospitalisation facility also in block primary health center and other primary health centers. There are 66 such primary health centres with combined bed strength of 516. According to *Health on March 2006-07*, the district hospital treated 312039 outpatients; 58771 patients were attended in emergency and 6596 deliveries were attended in the district hospital during Jan 2006-Dec 2006.

Table 6.2.1: State run Hospital Facilities in the District (2007-08)

Name of the Institution	No.	Bed Strength
Barasat District Hospital	1	500
Sub-Divisional Hospital	4	850
State General Hospital	8	920
Rural Hospital	7	235
Block Primary Health Centre	15	204
Primary Health Centre	53	312
Total	88	3021

Source: Department of Health, North 24 Parganas

¹ Barrackpore Sub-Divisional Hospital (SDH), Bashirhat SDH, Bongaon SDH, Salt Lake SDH.

² Ashoknagar State General Hospital (SGH), Baranagar SGH, Bhatpara SGH, Habra SGH, Naihati SGH, Panihati SGH, Sagar Datta SGH, Sri Balaram Seva Mandir SGH.

In sub-divisional and state general hospitals³ there were 4635 beds. 941 full time doctors served the state run health care infrastructure⁴. Primary health centers usually treat outdoor patients; hospitalization facility is offered only in emergencies.

Parallel to the state run health care facilities, the district has quite a large number of private institutions for catering to the medical needs of the people. There are 225 registered Nursing homes in the district with combined bed strength of 3493. Maternity beds are available in 172 Nursing homes. Along with these there are 502 registered pathologies and investigation units. 11 investigation units have CT scan and/or MRI facilities. The district has 86 registered polyclinics and 14 day care centers (Table 6.2.2).

Table 6.2.2: Private Health Care Facility in the District (2007-08)

Name of the Institution	No.	Bed Strength
Registered NursingHome	225	3493
Nursing Home with Maternity Beds	172	1132
Registered Pathology & Investigation Units	502	N.A.
Investigation Units having X-ray facilities	99	N.A.
Investigation units having CT & / or MRI facilities	11	N.A.
Registered Polyclinic	86	N.A.
Registered Day-Care Centre	14	41
USG Clinics issued PNDT license	208	N.A.
Total	1317	4666

Source: Department of Health, North 24 Parganas

The state run medical infrastructure is still now the most important source of health care services for the people in the district. There is much pressure on the district hospital where the bed turnover rate is 155.6⁵ percent. The bed occupancy rate in the district hospital is more than 100 percent. The percentage of emergency admission (to total admission) is 73.2 which indicates that in emergency, the people still consider the district hospital as the major medical center to bank upon. The indoor patients are not usually referred to other hospitals. The percentage of admitted patients referred to the other hospitals is only 9.7. Out of the total discharged patients only 7.5 percent is referred to other hospitals. The district hospital does perform major surgery; in fact, 4.7 percent of the patients admitted in this hospital undergo major surgery (Table 6.2.3).

³ Including Rural Hospital and Block Primary Health Centers.

⁴ As per District Census Handbook, North 24 Parganas, 2006

⁵ Total number of discharges or deaths per bed in a given period.

Table 6.2.3: Performance Indicators of District Hospital in North 24 Parganas (January 2006- December 2006)

District Hospital	
Bed Turnover Rate	155.6
Bed Occupancy Rate	107.2
Average length of Stay	2.5
Outpatient per bed day	2.8
Percentage of patients referred out to total discharged patients	7.5
Percentage of patients referred in to total inpatients	9.7
Percentage of Major Surgery to Admission	4.7
Percentage of deliveries to admission	14.2
Emergency Admission Rate (Percent)	73.2
Percentage of Imaging and Electro Medical tests to total IPD and OPD	5.8
Percentage of Laboratory Tests to Total IPD and OPD	31.7

Source: Health On March, 2006-2007, Govt. of WB

There are 12 Sub-Divisional (SD) and State General (SG) hospitals in the district. Performance of these hospitals is mixed in nature. Some of these hospitals are performing very well and some are not. For example, the bed turn over rate in Barrackpore SD hospital was 115.6 percent in 2006. In Bhatpara SG hospital, the turn over rate in the same period was as high as 175.5 percent. In Salt Lake SD on the other hand, the turn over rate was only 55.2 percent. In Baranagar SG the rate was still lower (38.4 percent). The bed turn over rate was low in these hospitals partly due to the fact that the average length of stay in these hospitals was higher than the hospitals where the bed turn-over rates were higher (Table 6.2.4, Col 4). Even then, one cannot overlook the fact that in the hospitals where the bed turn-over rates were low, the percentage of patients referred out to total discharged patients is also quite high.

Table 6.2.4: Performance Indicators of Sub Divisional/State General Hospital in North 24 Parganas (January 2006- December 2006)

SD and SG Hospitals	Bed Turnover Rate	Bed Occupancy Rate in Percent	Average length of Stay	Outpatient per bed day	Percentage of patients referred out to total discharged patients	Percentage of Major Surgery to Admission	Percentage of deliveries to admission	Emergency Admission Rate (Percent)	Percentage of Imaging and Electro Medical tests to total IPD and OPD	Percentage of Laboratory Tests to Total IPD and OPD
Barrackpore SD	115.6	80.3	2.5	2	9.1	5.1	11.3	48.5	3.8	22.1
Bashirhat SD	93	60.7	2.4	2	9.8	3	17.3	89.6	5.7	5.6
Bongaon SD	79.7	96.6	4.4	2.7	7.5	3	18.1	85.4	3	8
Salt Lake SD	55.2	96.5	6.4	3.1	12.1	10.3	31.3	23	7.4	17.4
Ashoknagar SG	85.7	62.9	2.7	4	14	0	6.9	21	5.3	7.5
Baranagar SG	38.4	55.6	5.3	3.1	8.9	5.8	12	55.2	2.4	3.2

Table 6.2.4: Performance Indicators of Sub Divisional/State General Hospital in North 24 Parganas (January 2006- December 2006)Contd.

SD and SG Hospitals	Bed Turnover Rate	Bed Occupancy Rate in Percent	Average length of Stay	Outpatient per bed day	Percentage of patients referred out to total discharged patients	Percentage of Major Surgery to Admission	Percentage of deliveries to admission	Emergency Admission Rate (Per cent)	Percentage of Imaging and Electro Medical tests to total IPD and OPD	Percentage of Laboratory Tests to Total IPD and OPD
Bhatpara SG	175.5	110.3	2.3	6	10.5	2.5	10.4	31.2	2.4	7.5
Habra SG	108.4	86.3	2.9	3.8	36.7	5.1	20.5	45.6	2.1	10.9
Naihati SG	88.6	86.9	3.6	3.3	13.6	6.8	16.5	96.9	3.5	14.6
Panihati SG	90.2	80.1	3.2	2.6	16.8	2.2	7.7	28.6	1.9	8.9
Sagar Datta SG	72.9	77.1	3.9	3.1	18.8	7	18.6	16.9	4.5	12.7
Sri Balaram Seva Mandir SG	43.1	65.4	5.5	2.3	17.5	19.5	2.7	18.1	6.7	24

Source: Health On March, 2006-2007, Govt. of WB

In Baranagar SG where the bed turn-over rate is 38.4 percent, the percentage of patients referred out was 8.9, a percentage which is higher than that of Bongaon SD where the bed turn-over rate is 79.7 percent. In Salt Lake SD and Balaram Seva Mandir in Khardaha, where the bed turn-over rates are low, the percentage of major surgery to total admission is much higher than what is observed in other hospitals where the occupancy rate is very high. Again, the percentage of emergency admission in these two hospitals is rather low (23 percent in Salt Lake SD and 18.1 percent in Balaram Seva Mandir).

It appears that these two hospitals serve as cheap centers for the treatment of complicated cases (reflected in longer average length of stay). In emergency, people usually visit other nearby hospitals. In terms of bed occupancy rate⁶, one observes that the pressure is very high in Bhatpara SG (occupancy rate 110.3 percent) (Table 6.2.4). In Baranagar SG, the occupancy rate is only 55.6. In nearby Balaram Seva Mandir, the rate is 65.4 percent. Vacancies also exist in Naihati SG which is near to Bhatpara. Even in hospitals like Ashokenagar SG, the bed occupancy rate in 2006 was 62.9 percent.

Table 6.2.5: Performance Indicators of Rural Hospitals in North 24 Parganas (January 2006- December 2006)

Rural Hospitals	Bed Turnover Rate	Bed Occupancy Rate in Percent	Average length of Stay	Out patient per bed day	Percentage of patients referred out to total discharged patients	Percentage of deliveries to admission	Percentage of Imaging and Electro Medical tests to total IPD and OPD	Percentage of Laboratory Tests to Total IPD and OPD
Baduria	67.6	41.3	2.2	3.2	24.6	14.2	2.5	NA
Bagdah	200.7	87.9	1.6	16.2	9.3	9.8	1.8	1.2
Madhyamgram	99.4	61.6	2.3	11.9	61.9	18.9	2.9	3

⁶ Number of sanctioned beds * number of days in a year gives the number of bed days. The number of days occupied as ratio to above gives the bed occupancy rate.

Table 6.2.5: Performance Indicators of Rural Hospitals in North 24 Parganas (January 2006- December 2006)Contd.

Rural Hospitals	Bed Turnover Rate	Bed Occupancy Rate in Percent	Average length of Stay	Out patient per bed day	Percentage of patients referred out to total discharged patients	Percentage of deliveries to admission	Percentage of Imaging and Electro Medical tests to total IPD and OPD	Percentage of Laboratory Tests to Total IPD and OPD
Minakhan	49.8	7.4	0.5	17.8	20.3	35.8	0.6	0.5
Sandeshkhali	76.9	60.6	2.9	4.2	7.3	19.3	4.4	7.8
Sarapol	94.4	49.7	1.9	7	16.8	10.3	0.7	5.8
Taki	71.2	60.6	3.1	5.5	16	8.7	2.7	1

Source: Health On March 2006-2007, Govt. of WB

In 7 rural hospitals, there are 235 seats for indoor patients. The bed turn-over rates vary from one hospital to the other. In Bagdah Rural Hospital (RH) the bed turn-over rate was 200.7 in 2006. In Minakhan on the other hand, the bed turn-over rate was as low as 49.8 percent (Table 6.2.5). The bed occupancy rate in Minakhan was 7.4 percent with the average length of stay as poor as 0.5 per bed day. 20.3 percent of the discharged patients here are referred to other hospitals. It appears that the health care services in Minakhan RH is rather poor. The percentage of discharged patients referred to other hospitals is also very high in Madhyamgram RH (61.9 percent). However, the bed turn-over rate in Madhyamgram is as high as 99.4 percent and the bed occupancy rate is 61.6 percent. Average length of stay in this RH is 2.3 days. It appears that there is much pressure in this RH and the infrastructure there is not sufficient for coping with the medical needs of the people in nearby regions. In Baduria, the bed turn-over rate is poor (67.6 percent), so also is the bed occupancy rate (41.3 percent). 24.6 percent of the discharged patients in 2006 were in fact, referred to other hospitals. The scenario is somewhat better in Taki RH where the bed turn-over rate is 71.2 percent and the bed occupancy rate is 60.6 percent. With an average length of stay for 3.1 days, Taki RH appears to utilize the existing infrastructure in a better way.

Table 6.2.6: Performance Indicators of BPHCs in North 24 Parganas (January 2006- December 2006)

Block Primary Health Centres	Bed Turnover Rate	Bed Occupancy Rate (Percentage)	Outpatient per bed day	Percentage of patients out to total discharged patients	Percentage of deliveries to admission	Percentage of Laboratory Tests to Total IPD and OPD
Amdanga	136.5	65.9	15	NA	36.4	NA
Bandipur	71.1	63	12.9	18.8	20.3	15.9
Biswanathpur	31.4	50.8	11.3	NA	62.7	4.4
Chandpara	112.8	25	24.5	17.3	25.7	3.4
Chhotojagulia	20.5	NA	10	19.3	18.7	NA
Dhanyakuria	129.3	53.5	17.7	17	29	NA
Ghoshpur	11.4	14.1	5.6	31.1	28.4	NA
Haroa	195.7	NA	12.1	31.8	28.9	NA
Maslandpur	0	NA	15.7	0	0	NA

Table 6.2.6: Performance Indicators of BPHCs in North 24 Parganas (January 2006- December 2006).....Contd.

Block Primary Health Centres	Bed Turnover Rate	Bed Occupancy Rate (Percentage)	Outpatient per bed day	Percentage of patients out to total discharged patients	Percentage of deliveries to admission	Percentage of Laboratory Tests to Total IPD and OPD
Nanna	0	0	18.7	0	0	NA
Shibhati	102.2	90.1	14.1	2.9	14.6	NA
Sabdalpur	30.5	5.3	9.3	24.8	4.2	NA
Sandlerbil	73.3	60.7	6.5	5.3	13.7	NA
Sundarpur	0	0	45.7	0	0	NA
Reckjoani	67.5	17.2	28.2	NA	26.2	NA

Source: Health On March 2006-2007, Govt. of WB

Block Primary Health Centre (BPHC) is the last unit in health infrastructure of the state where hospitalization facility exists. Table 6.2.6 describes the reality with respect to the BPHCs of North 24 Parganas in 2006. In many of the BPHCs the bed turn-over rate is zero. In some cases the occupancy rate is below 30 percent. The bed occupancy rate is as poor as 5.3 percent in Sabdalpur BPHC. In Chadpara, the bed occupancy rate is 25 percent. In Reckjoani the occupancy rate is as low as 17.2 percent. Not that a very high percentage of the discharged patients are referred to other hospitals it is not also true that these hospitals are specialised in handling the delivery cases. What transpires is that the general infrastructure in BPHCs are poor and the people know that they will not get proper services if they visit the BPHCs. As the communication facilities are developing, now-a-days people usually visit the nearby rural hospitals or sub-divisional/state general hospitals.

6.3 State run Medical Services: Organizational Setup and Logistics

At the grassroots level, there are 742 sub-centers. These sub-centres are run by Health Assistants (HA). Distributed over 200 gram panchayats in 22 blocks, these are supervised regularly and the Block level Medical Officers (BMOH) are responsible for the proper functioning of these sub-centres. The sub-centres are to send report regularly and there is a provision for monthly review. The first Saturday of every month is fixed for this monthly review meeting at block level. These are preceded by GP level meetings which are held on the remaining three Saturdays. BMOH/Superintendent of the rural hospital with the assistance of data entry operator compiles the block level reports and these are sent to the district office regularly. BMOH is responsible for the surveillance, epidemic control and curative activities within the block under his jurisdiction.

Table 6.3.1 A: Health Services Personnel in the District A: Sub-Centre

Staff	Number Sanctioned	Number in-position	Number lying Vacant
Health Assistant (F)	742	686	56
Health Assistant (M)	742	344	398
Health Supervisors	200	194	06

Source: District Health Action Plan, 2008-2009, Department of Health, North 24Parganas

In the district headquarters there is an office of the Chief Medical Officer Health (CMOH). CMOH is assisted by Deputy CMOH – I, II, III, who are the program officers of the district. Deputy CMOH-I is in charge of logistics management. He is responsible for procuring and supplying drugs, equipments and vehicles for communication within the district. Deputy CMOH-II is responsible for surveillance and epidemic control. He is also related to National programs excepting RNTCP (Revised National Tuberculosis Control Programme), RCH (Reproductive and Child Health) and Family welfare. Deputy CMOH-III is responsible for RCH, Family welfare and UIP (Universal Immunisation Programme). There is a separate post of District Leprosy officer who looks after National Leprosy Elimination Programme. For RNTCP, there is one District TB officer. In the health service, there are also Assistant CMOHs in the district. The Assistant CMOHs (ACMOH) is posted at sub-divisions (one for each sub-division). One ACMOH (Medico legal) is posted in the district headquarter for helping CMOH in the inspection of the clinical establishments and issuing of licenses. In the district headquarter there is one District Sanitary Inspector posted under Deputy CMOH II. He/she assists the DCMOH II in implementing and monitoring the entire national programs under his/her jurisdiction and in surveillance and epidemic control activities.

Table 6.3.1 B: PHCs

Staff	Number Sanctioned	Number In-position		Number lying Vacant
		Government	Contract	
Medical Officer	52	35	09	08
Staff Nurse	117	84	0	33
Pharmacist	52	45	0	07
Others	Not Available	Not Available	Not Available	Not Available

Source: District Health Action Plan, 2008-2009, Department of Health, North 24Parganas

In primary health sub-centres, there should be one HA (Male) and one HA (Female) in each sub-centre, according to national norm. In the district, the number of sanctioned post for HA (male) and HA (female) is the same as the number of sub-centres (742). At present there are 56 sub-centres in which there is no HA (female). The absence of HA (male) is more pronounced. There are 398 sub-centres in which there is no HA (male). The number of Health Supervisors in the district is 194, only 6 post of Health Supervisors are presently lying vacant (Table 6.3.1). At the PHC level the district is badly in need of trained staff nurse. There are 117 sanctioned posts for 53 PHCs. At present 33 posts of staff nurse are lying vacant. There are 8 posts of MOs which are lying vacant. There are only 35 regular medical officers in the PHCs of the district. Nine MOs are now being hired on contractual basis. That some PHCs are not functioning well is largely explained by the absence of trained personnel in the concerned PHCs.

Table 6.3.1 C: BPHCs

Staff	Number Sanctioned	Number In-position	Number lying Vacant
BMOH	15	15	0
2nd Medical Officer	13	12	1
BPHN & PHN	30	26	4
Staff Nurse	156	129	27
Lab technicians	15	8	7
X-Ray technicians	0	0	

Table 6.3.1 C: BPHCs: Contd.

Staff	Number Sanctioned	Number In-position	Number lying Vacant
Ophthalmic Assistant (PMOA)	28	19	9
Block Sanitary Inspector (BSI)	15	0	15
ECG Technician	15	2	13
Dentist NA	1	NA	
Social Welfare Officer	15	0	15
Computer15	0	15	

Source: District Health Action Plan, 2008-2009, Department of Health, North 24Parganas

There are BMOHs in all the BPHCs. The second MOs are also available in almost all of the BPHCs. The problem is with the availability of staff nurse. There are 156 sanctioned posts of staff nurse in the BPHCs. However, 27 posts in this cadre are lying vacant, according to the information of the Health Department of the district. There are no sanctioned posts of gynecologists and anesthetists in any of the BPHCs. In case of delivery related emergencies therefore the people hardly get any service from the BPHCs. The BPHCs cannot also undertake surgery that requires the involvement of the anesthetists. As the data indicate as many as 13 BPHCs do not have ECG technicians. Social Welfare Officer is not also available in any of the BPHCs. The other disturbing point is that there are 15 posts of Block Sanitary Inspectors in the district; the number of posts lying vacant in this cadre is also 15. For information management every BPHC has a sanctioned post of Computer Assistant. At present no BPHC has hired any such person.

Among 7 Rural Hospitals (RH) of the district, there is one in which there is no BMOH. There are 32 sanctioned posts of MOs, 4 such posts are lying vacant. In no RH there is any surgeon for taking up surgical operations. Such operations cannot be done in most of the RHs because there are only 2 sanctioned posts of anesthetist in RHs of the district.

Table 6.3.1 D: Rural Hospitals

Staff	Number Sanctioned	Number In-position	Number lying Vacant	Remarks
BMOH	7	6	1	
Medical Officer RH	32	28	4	
Gynecologist	2	3	0	One MO in Baduria RH
Anesthetist	2	2	0	
Surgeon	2	0	2	
Pediatrician	2	1	1	
BPHN & PHN	14	8	6	
Staff Nurse	108	94	12	
Lab technicians	7	8	0	In Taki RH In- position 2
X-Ray technicians	8	4	4	
Ophthalmic Assistant (PMOA)	18	10	8	
ECG Technician	7	7	0	
Dentist7	1	6		
Social Welfare Officer	7	3	4	
Computer	7	0	7	
Block Sanitary Inspector	7	0	7	

Source: District Health Action Plan, 2008-2009, Department of Health, North 24Parganas

There are no dentists in 6 of the RHs. In 7 RHs, there is no Block Sanitary Inspector. Computer Assistant for information management is not available in any of the RHs although there are 7 sanctioned posts of computer assistants in RHs of the district. With mounting pressure on state sponsored health care services the district is failing to deliver the services at the adequate level largely due to the fact that it is suffering from the dearth of adequate number of health care related personnel at various tiers of the health infrastructure of the district.

6.4 Health Care System Loads in North 24 Parganas

The state sponsored health care infrastructure is not uniformly distributed over the district. There are 47 hospitals in the district (Table 6.4.1). But 32 out of these 47 hospitals are located in the municipalities in the western part of the district. It is true that a hospital serves the people of not only the nearby locality, many people from even the remote places of the district try to get hospital facilities even in distant locations in case they fail to get the proper service from the health care system in nearby places. Usually, however, a hospital has a hinterland that comprises of the municipalities, the block headquarters and the nearby villages. Location wise, the district can be divided into 4 distinct zones in terms of the availabilities of health care facilities that can be utilized by the people in nearby localities. Considering the spread of the hospitals in the district, we have divided the district in 4 zones and considered the inter-zone variation in terms of indoor treatment facilities (proxied by the total number of beds only). As we observe, in zone I which consists of 5 rural blocks in Bagdah-Bongaon region and the municipalities in Bongaon, Habra, Gobordanga and Ashoknagar, the number of beds per ten thousand population is only 1.97 (Table 6.4.1). The number of beds per ten thousand population is the highest in Barasat zone (zone II). In zone III also hospital beds per ten thousand population is much higher than what one observes in zone I. Contrary to what is normally expected, the number of beds per ten thousand population is the lowest in zone IV, the zone which covers mostly the municipalities adjacent to Kolkata. This is not surprising, given the fact that the projected population⁷ in zone IV is much higher than those in other zones. One may add that a substantive section of the urban population in zone IV depends very much on private health care services, which is why the effective load in these hospitals is not as high as it would have been, had the state health care services been the only available services in this region.

In terms of doctors in state sponsored health care services also zone I, that is Bongaon region is more deprived compared to zone II and zone III. Thus doctors per 1 lakh population in zone I is only 3.59. In Barasat region (zone II), the comparable number is 9.01 (Table 6.4.1). Even in Basirhat-Sandeshkhali region (zone III) the number of doctors per 1 lakh population is 5.98, a number which is higher than that in zone I. As in case of hospitals beds, the number of doctors in state health care services, per 1 lakh population, is the lowest in zone IV. Once again, we should point out that this is due to a very high density of population in zone IV. From the point of view of providing health care services to the people, this is of little consequence, given the fact that a large number of families in this zone do not depend on the state sponsored health care system.

⁷ Population is estimated on the basis of decadal growth rates, as in Provisional Totals, Census 2001.

Table 6.4.1: Current Healthcare System Loads in North 24 Parganas (2005-06)

Zones	Hospitals	Health Centres	Sub-Centres (Including Clinics and Dispensaries)	Total	Total Number of Beds	Number of Doctors	Estimated Total Population 2005	Beds per 10,000 population	Doctors per 1 lakh population
Zone I	6	19	192	217	621	113	3149286	1.97	3.59
Zone II	7	26	228	261	923	185	2052321	4.50	9.01
Zone III	2	22	221	245	542	88	1472242	3.68	5.98
Zone IV	32	8	113	153	2549	575	21282212	1.20	2.70
Total	47	75	754	876	4635	961	27956061	1.66	3.44

Zone I: Bagdah, Bongaon, Gaighata, Habra I, Habra II, Bongaon (M), Habra (M), Gobordanga (M) and Ashoknagar (M).

Zone II: Barasat I, Barasat II, Amdanga, Deganga, Baduria, Haroa, Swarupnagar, Barasat (M), Madhyamgram (M), Rajarhat-Gopalpur (M) and Baduria (M).

Zone III: Minakhan, Hasnabad, Hingaljang, Sandeshkhali I, Sandeshkhali II, Basirhat I, Basirhat II, Basirhat (M) and Taki (M).

Zone IV: Rajarhat, Barrackpore I, Barrackpore II, Kanchrapara (M), Halisahar (M), Naihati (M), Bhatpara (M), Garulia (M), North Barrackpore (M), Barrackpore (M), Titagarh (M), Khardaha (M), Panihati (M), New Barrackpore (M), Baranagar (M), Dum Dum (M), North Dum Dum (M), South Dum Dum (M) and Bidhannagar (M).

Source: District Statistical Handbook, North 24 Parganas, BAE&S, Government of West Bengal, 2006

If we discuss the system loads in terms of the number of patients treated, we observe that the pressure of indoor patients compared to the estimated population of the zones is the highest in Zone II. In terms of treatment in outdoors also the pressure is the highest in the health care system in Zone II (Table 6.4.2). This is not surprising given the fact that the district hospital which has most of the treatment facilities is situated in Zone II. The next in order is the hospitals in Zone III. Since the backward regions in Sandeshkhali I, Sandeshkhali II and Hingaljanj do not have direct road or railway communication to the district hospital at Barasat (they are to carry the patient via Basirhat), the Basirhat hospital in Badartala (Zone III) has to bear with the patient load from these places. Many of the patients first get the outdoor treatment in this hospital which is why the ratio of outdoor patients to total population is very high in the hospitals in this zone. In terms of indoor treatment however, the hospitals in Zone I are better placed compared to the hospitals in Zone III. This is largely due to the fact that the indoor treatment facilities are better in this region. Both in terms of indoor patients and outdoor patients the hospitals in Zone IV appear to be poor performers. This is largely due to the fact that there exists developed private health care system in this region that bears much of the patient load in this zone.

Table 6.4.2: Current Healthcare System Loads: A Ratio Analysis

Zones	In-patients to Total Population	Out-patients to Total Population	Total Patients to Total Population
Zone I	0.020	0.311	0.331
Zone II	0.049	0.421	0.470
Zone III	0.013	0.379	0.392
Zone IV	0.012	0.087	0.099
Total	0.016	0.152	0.168

Source: District Statistical Handbook, North 24 Parganas, BAE&S, Government of West Bengal, 2006

According to the national norm there should be one primary health sub-centre per 5000 population in plain area and for 3000 population in tribal, hilly and backward area. Again, there should be one primary health center for 30,000 population in plain area and for 20,000 population in tribal, hilly and backward area. In North 24 Parganas, there are three blocks, namely, Sandeshkhali I, Sabdeshkhali II and Hingaljanj which have been declared as backward blocks in terms of health care facilities. Taking this into consideration, in Table 6.4.3 we have calculated the current infrastructural gap in rural health care system in North 24 Parganas. For this calculation, we have taken the estimated population of the blocks for 2005. The estimation exercise has been done by considering the estimated growth rate of population as given in Census 2001 (Provisional Totals).

It appears that the shortfall in terms of the primary health sub-centres in the district is in the order of 184. The aggregate does not however reveal the fact that there is anomaly in the inter-block distribution of the Sub-Centres (SC) in the district. Thus there are three blocks adjacent to Kolkata metropolitan district in which there is no shortfall, on the contrary there are 34 sub-centres in these blocks which are in excess to the national norm. In Rajarhat, for example, there are now 37 SCs. According to the national norm the number should be 28. Similarly in Barrackpore I, 10 SCs should be considered as unnecessary. The number of such unnecessary SCs is as high as 15 in Barrackpore II. The existence of SCs in excess to the national norm in these blocks is largely due to the fact that many of the villages (mouzas) have now been included in the nearby municipalities.

Table 6.4.3: Infrastructural Gaps in Rural Health Care System in North 24 Parganas

Blocks	Health Centres	Sub-Centres	Total	Projected population 2005	Additional Requirement of Sub Centre	Additional Requirement of Health Centres
Bagdah	4	35	39	232640	12	4
Bongaon	4	55	59	366156	18	8
Gaighata	5	46	51	299974	14	5
Habra I	3	29	32	173551	6	3
Habra II	3	27	30	139399	1	2
Barasat I	3	36	39	237610	12	5
Barasat II	3	32	35	172943	3	3
Amdanga	4	25	29	177904	11	2
Deganga	5	37	42	297589	23	5
Rajarhat	3	37	40	138630	-9	2
Barrackpore I	2	34	36	121699	-10	2
Barrackpore II	3	31	34	79089	-15	0
Baduria	5	35	40	263846	18	4
Haroa	3	29	32	196850	10	4
Minakhan	3	29	32	183557	8	3
Swarupnagar	3	34	37	239840	14	5
Hasnabad	3	33	36	189333	5	3
Hingaljanj*	4	42	46	162428	12	4
Sandeshkhali I*	3	35	38	149345	15	4
Sandeshkhali II*	3	35	38	143982	13	4
Basirhat I	2	19	21	159417	13	3
Basirhat II	3	27	30	201298	13	4
Total	74	742	816	4317705	184	78

*Sub-centre per 3000 population * PHC per 20000 population

Source: District Statistical Handbook, North 24 Parganas, BAE&S, Government of West Bengal, 2006

Considering the other blocks, one might observe that the shortfall in the number of SCs is the highest in Baduria and Bongaon. In Baduria there is a rural hospital. Possibly this is the reason behind the non-existence of SCs in required numbers in the villages in this block. In Bongaon also, the hospital facilities do exist and much of the services that one expects to get from SCs are being received from the hospitals. One would however add that the concept of SC has been derived from the idea of community health services. Such services are hardly offered by the hospitals. Among the backward blocks, the infrastructural gap is the highest in Sandeshkhali I. The block needs 15 additional SCs immediately. In Sandeshkhali II, the gap is in the order of 13. In Hingalganj also, 12 additional SCs should be commissioned immediately. Habra II appears to be the best block in this regard. It needs only 1 additional SC as per national norm.

According to national norm, there should be a Primary Health Center (PHC) for 30000 rural population, in backward area the norm is one PHC for 20000 population. The district needs 78 more PHCs according to the national norm. It appears that there is infrastructural gap in this regard in every block of the district except Barrackpore II (Table 6.4.3). The shortfall is the highest in Bongaon where the district needs 8 more PHCs. There are 4 blocks in which the shortfall is in the order of 5. Hingalganj, Sandeshkhali I and Sandeshkhali II, the three backward blocks need 4 additional PHCs per block if the national norm is adhered to.

6.5 Maternal and Child Health Related Issues

Under Nutrition and various morbidities go hand in hand, particularly among the children. In order to maintain the community health, it is necessary that the children are fed properly. To what extent the children in this district remain under-fed? In the absence of the reliable data in this regard, it was decided that the baseline study would take up this exercise with respect to the children in the sampled households in the district. As we have already mentioned, there were 1500 households equally spread over 3 distinct zones of rural North 24 Parganas from which the relevant information was collected. 126 children in 0-5 age group were found in 500 households in riverine area. In 500 households in BA villages there were 91 such children and in the ORA there were 97 children in 0-5 age group in 500 households. In urban areas, the sample included 172 children, 90 of which were from slum areas. These children were also in 0-5 age group. Altogether therefore there were 486 children with respect to which anthropometric measurements were taken. Various indices in Z scores were worked out for assessing the nutritional status of the children. Analysis with anthropac software for children up to 5 years of age reveal the Z score which were classified as indicator of malnutrition⁸. The WHO standard for measurement was used to assess the nutritional status of the children. Table 6.5.1 summarises the findings.

We consider first height for age for the children in this age group. In the SA, the height for age was normal according to WHO standard with respect to 51.6 percent of male children. For the female children the percentage was somewhat better (64.5 percent). In the BA, the scenario was just the reverse. 52.4 percent of the girls were of normal height. For the boys the relevant percentage was 65.2. In ORA, 71.1 percent of the boys and 63.5 percent of the girls were of normal height. Weight for age is a powerful measure of the nutritional situation. For the boys in SA, the situation in this regard was dismal. Only 39.1 percent of the boys in this region were of normal weight. Severe malnutrition was observed with respect to 32.8 percent of the boys in this region. For the girls, normal weight for age was observed only for 46.8 percent of the sampled children. Weight for age was normal with respect to 46.9 percent of the boys in BA. For the girls, it was only 31 percent.

⁸ Anthropac is generally used to assess the nutritional status of the children and the Z scores represent the following.

Malnutrition Indicator	Z < -1.0	Z < -2.0	Z < -3.0
Weight for Height (wasting)	Mild	Moderate	Severe
Height for age (stunting)	Mild	Moderate	Severe
Weight for age (Underweight)	Mild	Moderate	Severe

Table 6.5.1: Nutritional status of children in Rural North 24 Parganas

HAZ	Height for age	Riverine area		Border area		Other rural area	
		N	%	N	%	N	%
Male	Normal	33	51.6	32	65.3	32	71.1
	-2 SD	16	25	9	18.4	4	8.9
	-3 SD	15	23.4	8	16.3	9	20
	Total	64	100	49	100	45	100
Female	Normal	40	64.5	22	52.4	33	63.5
	-2 SD	13	21	10	23.8	10	19.2
	-3 SD	9	14.5	10	23.8	9	17.3
	Total	62	100	42	100	52	100
Grand Total		126	100	91	100	97	100
WAZ	Weight for age	N	%	N	%	N	%
Male	Normal	25	39.1	23	46.9	19	42.2
	-2 SD	18	28.1	15	30.6	15	33.3
	-3 SD	21	32.8	11	22.4	11	24.4
	Total	64	100	49	100	45	100
Female	Normal	29	46.8	13	31	20	38.5
	-2 SD	16	25.8	14	33.3	14	26.9
	-3 SD	17	27.4	15	35.7	18	34.6
	Total	62	100	42	100	52	100
Grand Total		126	100	91	100	97	100
WHZ	Weight for height	N	%	N	%	N	%
Male	Normal	35	54.7	37	75.5	28	62.2
	-2 SD	18	28.1	8	16.3	12	26.7
	-3 SD	11	17.2	4	8.2	5	11.1
	Total	64	100	49	100	45	100
Female	Normal	41	66.1	27	64.3	36	69.2
	-2 SD	12	19.4	8	19	9	17.3
	-3 SD	9	14.5	7	16.7	7	13.5
	Total	62	100	42	100	52	100
Grand Total		126	100	91	100	97	100

Source: Base Line Survey 2008, ORG MARG

N – Numbers, HAZ – Height for Age, WAZ – Weight for Age, WHZ – Weight for Height, SD – Standard Deviation

In ORA, the scenario was no better. Normal weight for age was observed with respect to 42.2 percent of the boys in this region. It was worse for the girl children. Only 38.5 percent of the girls were found to maintained proper weight in this region. In terms of another measure namely, weight for height normalcy was observed with respect to 54.7 percent of the boys and 66.1 percent of the girls in the SA. In BA, the relevant percentages were 75.5 for the boys and 64.3 for the girls. In ORA 62.2 percent of the boys were found to maintain normal weight for their heights. For the girls, the relevant percentage was 69.2.

In the urban areas of the district height for weight have been normal for 69.6 percent of the boys in residential UFS blocks. For the girl children in this block normalcy was observed with respect to 66.7 percent of the children. Expectedly, the scenario was worse in the slum UFS blocks. Only 38.5 percent of the boys in the sampled households there were found to maintain normal height. The relevant percentage for girls was 43.1.

Table 6.5.2: Nutritional status of children in Urban North 24 Parganas

HAZ	Height for age	Residential area		Slum area	
		N	%	N	%
Male	Normal	32	69.6	15	38.5
	-2 SD	6	13	10	25.6
	-3 SD	8	17.4	14	35.9
	Total	46	100	39	100
Female	Normal	24	66.7	22	43.1
	-2 SD	5	13.9	13	25.5
	-3 SD	7	19.4	16	31.4
	Total	36	100	51	100
Grand Total		82	100	90	100
WAZ	Weight for age	Residential area		Slum area	
		N	%	N	%
Male	Normal	22	47.8	9	23.1
	-2 SD	12	26.1	15	38.5
	-3 SD	12	26.1	15	38.5
	Total	46	100	39	100
Female	Normal	17	47.2	11	21.6
	-2 SD	11	30.6	28	54.9
	-3 SD	8	22.2	12	23.5
	Total	36	100	51	100
Grand Total		82	100	90	100
WHZ	Weight for height	Residential area		Slum area	
		N	%	N	%
Male	Normal	29	63	20	51.3
	-2 SD	10	21.7	12	30.8
	-3 SD	7	15.2	7	17.9
	Total	46	100	39	100
Female	Normal	24	66.7	36	70.6
	-2 SD	11	30.6	10	19.6
	-3 SD	1	2.8	5	9.8
	Total	36	100	51	100
Grand Total		82	100	90	100

Source: Base Line Survey 2008, ORG MARG

N – Numbers, HAZ – Height for Age, WAZ – Weight for Age, WHZ – Weight for Height, SD – Standard Deviation

Severe malnutrition was observed with respect to the slum children. Only 23.1 percent of the boys in slums were found to maintain normal weight for their age. Among the girls, the percentage was still lower (21.6 percent).

The Households of Slum area has the greatest percentage of children being underweight. Stunting is the end result of chronically inadequate nutrition and almost 60 percent of the children were stunted in the slum area. The ratios of stunted children were 48 percent, 34 percent and 28 percent in riverine area, border area and other rural area respectively. Although stunted children are not an immediate public health concern but they are at a greater risk for future complications. Being under-weight indicates a deficit in body weight compared to the expected weight for the same age, which may result either from a failure in growth or loss of body weight due to infections. The chronic under-nutrition of the children in slum area and riverine area may be attributable to lower food security, with little variety in the diet, low expenditure on health, poor sanitary conditions and hygiene. The girls in higher percentages appear to fall victim to such hazards in all the areas of the district.

Table 6.5.2 A: Nutritional Status of Children in 0-6 Years in Rural North 24 Parganas

Name of the ICDS project (R/T/U)	Number of Children (0-6 Years)	Percentage of SNP Beneficiaries (0-6 Years)	Normal	Grade I	Grade II	Grade III & Grade IV
Amdanga	8974	46.98	46.69	41.29	11.92	0.1
Baduria	15128	49.46	40.76	35.76	23.31	0.17
Bagdah	4323	19.27	NA	NA	NA	NA
Barasat-I (NGO)	10271	43.61	51.58	36.25	11.85	0.32
Barasat-II (NGO)	7	0.04	60.11	28.35	11.42	0.12
Barrackpore-I	4841	34.24	66.4	26.84	6.54	0.22
Barrackpore-II	5634	35.2	63.22	29.69	7.08	0.01
Basirhat-I	9181	46.97	43.34	36.99	19.4	0.27
Basirhat-II	11900	50.48	56.88	29.08	13.61	0.43
Bongaon®	10543	34.63	55.94	33.02	10.88	0.15
Deganga	18317	58.85	50.27	36.14	13.1	0.49
Gaighata	15383	57.02	56.63	33.28	9.97	0.12
Habra-I	9136	49.36	58.56	31.77	9.56	0.12
Habra-II	7884	50.14	53.52	37.17	9.04	0.27
Haroa	13276	55.91	52.68	32.88	14.25	0.18
Hasnabad	9644	39.39	48.2	38.11	13.54	0.15
Hingalganj	9976	55.75	42.64	34.77	20.87	1.72
Minakhan	13870	55.69	46.86	32.3	20.73	0.11
Rajarhat	15132	51.29	56.33	34.96	8.59	0.13
Sandeshkhali-I	12475	60.64	46.86	35.98	17.11	0.05
Sandeshkhali-II	11462	56.49	46.51	37.63	15.68	0.17
Swarupnagar	3206	13.83	57.95	31.62	10.41	0.02
Total	220563	44.69	52.03	34.12	13.63	0.22

Source: ICDS Monthly Progress Report (June 2008)

The data on the nutritional status of the children in 0-6 years age group, covered under ICDS also substantiates the view that a large number of children in the district suffer from malnutrition. As one gets from Table 6.5.2 A, out of 220563 children covered under ICDS in rural North 24 Parganas, the percentage of children with normal weight is only 52.03. 34.12 percent of the children fall in Grade I deficiency and for Grade II, the percentage is 13.63. The percentage of children with normal weight was as low as 42.64 in Hingaljanj. In Baduria, the percentage was 40.76. In urban ICDS centers also, severe malnutrition is reported in one ICDS center under Bhatpara Municipality where the percentage of underweight children was 60.80 (according to the official data as on June 2008).

Table 6.5.3: Anemic Mothers as Reported by the BPHCs

Name of the BPHC	Reported Women in Reproductive Age	Average number of Anemic Mother	Percentage of Anemic Mother
Amdanga		14571	1637 11.23
Chhotojagulia	24118	1676	6.95
Madhyamgram	15780	985	6.24
Biswanathpur	25385	2251	8.87
Maslandapur	18205	1288	7.07
Sabdapur	15402	2746	17.83
Reckjoani	16237	1751	10.78
Chandpara	27058	2259	8.35
Sundarpur	29698	4658	15.68
Bagdah	15822	1479	9.35
Nanna	14806	680	4.59
Bandipur	17025	2280	13.39
Shibhati	11396	715	6.27
Dhanyakuria	19329	703	3.64
Baduria	24024	3533	14.70
Haroa	17673	1171	6.63
Minakhan	16312	2812	17.24
Taki	16249	895	5.51
Sandelerbil	13308	782	5.88
Ghoshpur	13062	2247	17.20
Sandeshkhali	8210	2126	25.90
Sarapole	22735	3847	16.92
Total	396403	42518	10.73

Note: Number of women in reproductive age was derived from the number of eligible couples in BPHCs. Both numbers were averaged over 2006-07 and 2007-08.

Source: Department of Health, North 24Parganas

In the BPHCs of the district, the detected number of anemic mothers had been 42518. This was the average over 2006-07 and 2007-08. In order to get an idea about a possible percentage of anemic mothers in the blocks we consulted the BPHC specific records of eligible couples. Since half of the total couples should be women in the reproductive age, we divided the number of eligible couples by 2 and found the possible number of women in reproductive age. We then considered the number of anemic mothers as a ratio to the women in the reproductive age. The findings are reported in Table 6.5.3. As we get from the table the highest percentage (25.90) of anemic mothers was in Sandeshkhali II (Sandeshkhali RH). The next in order is Minakhan (17.24 percent) and Sandeshkhali I (Ghospur BPHC). In Sandeshkhali I the percentage of anemic mothers was as high as 17.2. The percentage of anemic mothers was also very high in Swarupnagar (16.92 percent) and in Habra II (Sabdalpur BPHC). In Habra II the percentage of anemic mothers is 17.83. The district average should be 0.73 percent.

Table 6.5.4: Percentage of Anemic Mothers in the Blocks of North 24 Parganas

Name of the Blocks	Average No. of Registration (Antenatal Mother) *	Average No. of Anemic Mother*	Percentage of Anemic Mother
Amdanga	5244	2183	41.64
Barasat-I	3288	1426	43.37
Barasat-II	5777	2436	42.17
Deganga	5898	2706	45.89
Rajarhat	3148	1484	47.15
Habra-I	3342	1402	41.94
Habra-II	3285	1455	44.31
Barrackpore-I	2509	1151	45.88
Barrackpore-II	3172	1305	41.14
Bagdah	3285	1208	36.78
Gaighata	4595	2344	51.02
Bongaon	2616	1180	45.11
Basirhat-I	2990	1190	39.82
Basirhat-II	4008	1565	39.04
Baduria	4968	1971	39.67
Haroa	4073	1482	36.40
Hingalgunj	2616	1262	48.23
Hasnabad	4570	1932	42.28
Minakhan	3596	1676	46.61
Swarupnagar	4188	1898	45.32
Sandeshkhali-I	4816	1957	40.64
Sandeshkhali-II	2995	1362	45.49
Total	84975	36577	43.04

*Both numbers were averaged over 2004-05 to 2008-09.

Source: CMOH, North 24 Parganas

One disturbing aspect related to the mothers who are expecting children is that a high percentage of the antenatal mothers registered under various BPHCs suffer from anemia. The average for the district is 43.04 percent (Table 6.5.4) (averaged over 2004-05 to 2008-09). In Gaighata the average number of mothers registered in the local BPHC was 4595. On an average 2344 of these mothers were found to be anemic. In most of the blocks, the average was more than 40 percent. The lowest percentage recorded in any of the BPHCs during 2004-05 to 2008-09 was 36.40 (Haroa).

It is widely held that the major problems related to maternity in the district crop up because of mal-nutrition and the practice of early motherhood. As a part of the baseline survey, the age of marriage for the women in the surveyed households was recorded. In the SA, there were 490 married women in the sample. 413 out of these 490 married women reported that they were married before they attained adulthood (18+). In the BA, there were 508 married women in the sample households. The age of marriage was less than 18 years with respect to 83 percent of these married women. In ORA, the comparable percentage was 80 (Table 6.5.5). Early marriage was not confined to rural areas only. 53 percent of the married women in the sample households of residential UFS blocks reported that their age of marriage was less than 18 years. In slum UFS blocks the percentage of women getting married before attaining adulthood was as high as 70.

Table 6.5.5: Age at Marriage in the District

Age at Marriage	Riverine area		Border area		Other rural area		Residential Urban		Slum area	
	N	%	N	%	N	%	N	%	N	%
Less than 18	413	84	423	83	379	80	265	53	288	70
18-5	74	15	83	16	80	18	211	40	114	27
More than 25	3	1	2	1	7	1.9	31	7	10	2.5

Source: Base Line Survey 2008, ORG MARG

N — Number

The other disquieting feature is that many of the women gave birth to the first child before they attained adulthood (18+). Table 6.5.6 describes the findings with respect to 2273 married women from the surveyed households. In SA, the data was available with respect to 468 mothers. It was observed that 191 out of 468 mothers gave birth to the first child before they were 18 year old. It was also observed that there was one mother whose age at the birth of first child was only 11 years. Giving birth to the first child before attaining adulthood was not confined to SA only. In BA, 47.1 percent of the mothers had their first child before they were 18 year old. In ORA, the relevant percentage was 42.08. Early motherhood was not absent in the urban areas of the district. In non-slum UFS block there were 6 mothers who had their first child before they were 15 year old. The percentage of mothers giving birth to the first child before attaining the age of 18 was 19.33. In slums the percentage of mothers giving birth to the first child before attaining adulthood was 29.27.

Table 6.5.6: Age at Birth of First Child

Age at Birth of first child	Sundarban Area	Border Area	Other Rural area	Nonslum area	Slum area
	N	N	N	N	N
11	1	0	0	0	0
12	1	0	0	0	0
13	2	5	1	0	1
14	15	34	22	6	8
15	50	51	47	16	26
16	57	55	51	28	30
17	65	82	73	42	48
18	73	69	64	38	45
19	51	47	57	55	37
20	54	46	41	59	49
21	21	22	20	48	30
22	30	30	20	36	28
23	11	11	15	35	20
24	6	8	12	22	21
25	6	8	15	24	11
26	8	2	6	16	4
27	5	4	5	17	8
28	1	1	1	8	7
29	1	1	1	9	1
30	1	1	3	7	1
31	0	2	0	2	1
32	1	0	0	2	2
33	1	0	0	0	0
38	0	0	1	0	1
Total	468	482	461	476	386

Source: Base Line Survey 2008, ORG MARG

N — Number

Institutional delivery is yet to be opted for in many cases of childbirth in rural North 24 Parganas. The official data on institutional delivery and total delivery within a block during 2007-08 lays bare this reality. For example, in Baduria, which has a rural hospital, the reported number of non-institutional delivery was much higher than the institutional delivery, according to the official data. The data also indicate that 57.5 percent of the cases under non-institutional delivery in Baduria were attended by untrained birth attendants. In Biswanathpur BPHC (block: Deganga), the percentage of non-institutional delivery which was attended by untrained birth attendants was as high as 85.5. Again, the number of non-institutional deliveries in Deganga was almost double the number of institutional deliveries. In Sarapole BPHC (block: Swarupnagar) also, both the number of non-institutional deliveries and the percentage of non-institutional

Table 6.5.7: Status of Institutional Delivery in Rural North 24 Parganas (2007-08)

Name of the DH/ SDH/ SGH/ BPHC	Institutional Delivery	Non-Institutional Delivery	Percentage by Untrained Birth Attendant**
Amdanga Block	599	1207	37.70
Baduria RH	998	1579	57.50
Bagdah RH	1825	2078	23.58
Bandipur BPHC	1649	2825	7.96
Biswanathpur BPHC	529	1069	85.50
Chandpara BPHC	459	973	10.69
Chhotojagulia BPHC	333	963	57.74
Dhanyakuria BPHC	1195	587	71.38
Ghoshpur BPHC	1845	1349	24.02
Haroa BPHC	1414	611	85.43
Madhyamgram RH*	2314	315	100.00
Maslandpur	314	2021	12.52
Minakhan RH	1499	1908	37.00
Nanna Block	1501	2236	4.38
Rekjoani BPHC	1299	2461	7.07
Sabdulpur BPHC	1548	2355	9.47
Sandelerbil BPHC	488	2637	22.30
Sandeshkhali RH	299	1408	37.93
Sarapole RH	811	1715	52.83
Shibhati BPHC	251	1943	24.45
Sunderpur	419	2206	29.96
Taki RH	612	2474	24.05

* There had been non-conformity of total delivery and the number of births attended by untrained persons.

** Percentage to Non-Institutional Delivery

Source: Department of Health, North 24 Parganas

deliveries attended by untrained persons was very high (Table 6.5.7). In Bandipur BPHC also, the number of non-institutional delivery was 1.71 times higher than the number of institutional delivery. The health personnel observed that the preference for non-institutional delivery is largely community specific. The data also indicate that this might be the reason behind the prevalence of such a child delivery system in specific regions of the district. Be that as it may, the district is yet to develop institutional delivery as a common practice in many of the rural regions. Community specificity is not the only reason behind the preponderance of such a primitive system of childbirth in the rural areas of the district.

Mothers belonging to BPL families are now being covered under Janani Suraksha Yojana (JSY). We have the relevant data for the recent months with respect to all the blocks of the district. It appears that 17267 mothers of the BPL families received benefits under JSY during April, 2008 – July, 2008. Incentives were given for choosing institutional delivery with respect to 1482 mothers. The block wise data indicate that the highest number of beneficiaries under this scheme was in Sandeshkhali II. Barrackpore I was the next block in terms of the coverage under first part of the scheme. Haroa was the block in which the number of first level beneficiaries was very low. In Barrackpore I however, there was no mother who received cash

benefit for institutional delivery. The same was the case with respect to Bongaon and Habra I. The data do indicate that there exists a negative correlation between the number of beneficiaries under incentive programme for undergoing institutional delivery and the number of mothers opting for non-institutional delivery (The correlation coefficient is (-) 0.488). It is quite likely that the number of mothers opting for non-institutional delivery would decline as more and more pregnant women are covered under JSY. The other intervention programme for the pregnant women is a Supplementary Nutritional Programme (SNP) run under ICDS. From March 2007 to June 2008, 72892 pregnant women were registered under this scheme. 85.94 percent of the registered pregnant women received SNP benefits under ICDS. The coverage was very impressive. In Hingalganj, where the percentage of SNP beneficiaries was as high as 97.01, in the backward blocks such as Sandeshkhali I and II the percentages were 90.72 and 90.2 respectively,. In Habra I, the number of pregnant and lactating women registered under the scheme was 2584. The coverage under SNP in Habra I was 92.34 percent (Table 6.5.8).

Table 6.5.8: Progress of Janani Suraksha Yojana (JSY) (April 2008-July 2008) and SNP Benefit for Pregnant Women

Name of The Block	Beneficiaries (Rs.500)	Beneficiaries (Rs. 200 for Institutional Delivery)	Total Beneficiaries	Non-Institutional Delivery	Pregnant & Lactating Women	Percentage of SNP Beneficiaries (Pregnant & Lactating Women)
Amdanga	416	85	501	1207	2981	81.78
Baduria	717	131	848	1579	4633	85.28
Bagdah	509	73	582	2078	3540	83.7
Barrackpore-I	939	0	939	2236	1866	86.5
Barrackpore-II	616	60	676	2825	2044	88.94
Barasat-I	277	14	291	963	3852	77.65
Barasat-II	348	118	466	315	3166	79.34
Bashirhat-I	606	41	647	1943	2998	88.83
Bashirhat-II	622	89	711	587	3628	79.05
Bongaon	668	0	668	2206	4328	86.46
Deganga	350	94	444	1069	4935	83.91
Giaghata	541	68	609	973	3631	84.96
Habra-I	403	0	403	2021	2584	92.34
Habra-II	597	20	617	2355	2532	84.91
Haroa	193	106	299	611	3681	84.11
Hasnabad	400	96	496	2474	3219	91.64
Hingalganj	290	41	331	2637	2473	97.01
Minakhan	660	96	756	1908	3755	85.03
Rajarhat	605	43	648	2461	3262	91.81
Sandeshkhali-I	410	110	520	1349	3361	90.72
Sandeshkhali-II	4697	98	4795	1408	3389	90.2
Swarupnagar	921	99	1020	1715	3034	85.3
Total	15785	1482	17267	36920	72892	85.94

Source: Department of Health, North 24Parganas, ICDS Consolidated monthly progress report (June 2008) Format II

Immunization at the post natal stage is an important state sponsored public health related programme. In this district this programme is taken up by the District Health Department on the basis of community need assessment approach. In 2007-08, 79125 cases were identified for immunization. DPT, Polio and BCG had been the major immunization programmes. As the data indicate (Table 6.5.9), the achievement in this regard was quite impressive. In case of DPT, the achievement rate for the district is 104.5 percent. 82674 children were immunized under this scheme; this was higher than the Community Need Assessment Approach (CNA) target of 79125. With respect to Polio, the success rate was more than 100 percent. For BCG however, the achievement rate was 99.9 percent. Block wise information in this regard reveals that the DPT programme had been most successful in Madhyamgram. Target for immunization there was 3727. 4412 children were immunized in this BPHC under this programme. The success rate was poor in Minakhan. CNA target was 3686 in Minakhan. The achievement however was 3453. With respect to Polio also, performance in Minakhan was poor. In the target group of 3686 children, polio could be administered with respect to 3294 children only. As regards BCG, the performance was very poor in Barrackpore I (Nanna). Only 1237 out of 2402 children could be covered under this

Table 6.5.9: Progress of Universal Immunization Programme (2007-08)

Name of the B.P.H.C. / R.H.	Community Need Assessment Approach (C.N.A.A) 2007-08	DPT	Achievement (DPT)	Polio	Achievement (Polio)	BCG	Achievement (BCG)
Amdanga	3217	3115	96.8	3135	97.5	2920	90.8
Chhotojagulia	4472	4796	107.2	4727	105.7	3036	67.9
Madhyamgram	3727	4412	118.4	4399	118.0	4578	122.8
Biswanathpur	5683	5952	104.7	5892	103.7	5552	97.7
Maslandapur	3163	3282	103.8	3228	102.1	3100	98.0
Sabdapur	2926	2999	102.5	2996	102.4	2362	80.7
Rekjoani	2891	3318	114.8	3337	115.4	2340	80.9
Chandpara	4261	4396	103.2	4281	100.5	4379	102.8
Sundarpur	5294	5654	106.8	5611	106.0	7374	139.3
Bagdah	3593	3468	96.5	3505	97.6	3738	104.0
Nanna	2402	2393	99.6	2414	100.5	1237	51.5
Bandipur	2902	3252	112.1	3235	111.5	3279	113.0
Shibhati	2867	3013	105.1	2987	104.2	2906	101.4
Dhanyakuria	3757	4007	106.7	4923	131.0	3687	98.1
Baduria	4662	5112	109.7	4745	101.8	4731	101.5
Haroa	3773	3847	102.0	3855	102.2	3785	100.3
Minakhan	3686	3453	93.7	3294	89.4	3522	95.6
Taki	3532	3758	106.4	3613	102.3	3881	109.9
Sandelerbill	2771	2837	102.4	2852	102.9	2657	95.9
Ghoshpur	2914	3028	103.9	2952	101.3	3082	105.8
Sandeshkhali	2826	2715	96.1	2751	97.3	3122	110.5
Sarapul	3806	3867	101.6	3625	95.2	3772	99.1
	79125	82674	104.5	82357	104.1	79040	99.9

Source: Department of Health, North 24 Parganas

programme in this BPHC. The performance was also poor in Chotojagulia (Barasat I) where the coverage was 67.9 percent of the CNA target. In most other blocks however, the progress was quite commendable. Vaccinations against Hepatitis B and Measles are two other programmes of immunization that the Health Department takes up. As the data indicate achievements on these two counts are rather poor in this district. CNA target was to administer Hepatitis B vaccine with respect to 79125 persons. The achievement in 2007-08 was only 36293. In other words only 45.9 percent of the targeted children could be immunized. With respect to vaccination against measles, however, the success rate was very poor. The target was to cover 79125 children. The coverage of the scheme was 81973. In other words the success rate was 103.6 percent. Almost all the BPHC/RHs over fulfilled the target. Exceptions were Minakhan (Sandelerbil), Swarupnagar (Sarapole) and Haroa where the success rates were 90 percent, 95.7 percent and 96.2 percent respectively.

Table 6.5.10: Progress of Immunization Programme (2007-08)

Name of the B.P.H.C. / R.H.	Community Need Assesment Approach (C.N.A.A) 2007-08	Hepatitis B	Achievement (Hepatitis B)	Measles	Achievement (Measles)
Amdanga	3217	1791	55.7	3121	97.0
Chhotojagulia	4472	2349	52.5	5152	115.2
Madhyamgram	3727	1977	53.0	4200	112.7
Biswanathpur	5683	1632	28.7	5777	101.7
Maslandapur	3163	1379	43.6	3330	105.3
Sabdapur	2926	1655	56.6	2994	102.3
Rekjoani	2891	1952	67.5	3256	112.6
Chandpara	4261	1849	43.4	4400	103.3
Sundarpur	5294	1427	27.0	5568	105.2
Bagdah	3593	1604	44.6	3427	95.4
Nanna	2402	2426	101.0	2666	111.0
Bandipur	2902	1931	66.5	3272	112.7
Shibhati	2867	1015	35.4	2857	99.7
Dhanyakuria	3757	2483	66.1	4015	106.9
Baduria	4662	1340	28.7	4766	102.2
Haroa	3773	1399	37.1	3630	96.2
Minakhan	3686	1310	35.5	3317	90.0
Taki	3532	1316	37.3	3779	107.0
Sandelerbill	2771	1202	43.4	2818	101.7
Ghoshpur	2914	1440	49.4	2970	101.9
Sandeshkhali	2826	1226	43.4	3015	106.7
Sarapul	3806	1590	41.8	3643	95.7
	79125	36293	45.9	81973	103.6

Source: Department of Health, North 24 Parganas

National Rural Health Mission (NRHM)

One of the major central sector schemes that addresses the rural health related issues is the National Rural Health Mission (NRHM). The district is now implementing the provisions under NRHM which was commissioned in 2007. One of the missions of the NRHM is to strengthen health service provision in the rural areas by appointing Accredited Social Health Activists (ASHA). ASHA is expected to work in close coordination with *Angan Wari* worker in providing health and counseling services to the communities and help in social mobilization at village level. ASHA is eligible for certain incentives to motivate her to work efficiently towards meeting targets for immunization, registration and full ANC & PNC of pregnant women. She also has to escort pregnant women to institutions for delivery and ensure that they receive benefits of referral transport. As of now, ASHA has been deployed in the 5 backward blocks and the process of appointment in 11 other blocks is under process.

Mainstreaming of AYUSH, the service under AYURVEDA, YOGA, UNANI, SIDDHA, & HOMOEOPATHY is one of the strategies envisaged under National Rural Health Mission. The objective of integration of AYUSH in the health care infrastructure is to bring about an architectural correction and to reinforce the existing public health care delivery system, to facilitate the use of natural, safe and friendly remedies, which are time tested, accessible and affordable.

In this district of North 24 Parganas there are 11. State Ayurvedic Dispensaries and 18 State Homoeopathic Dispensaries. Such dispensaries do treat a large number of patients in different blocks. The number of patients treated in SAD was 39885 in first six months of 2009. The number of patients treated in the comparable period in 2008 was 32816. (Table 6.5.11 and Table 6.5.12)

Table 6.5.11: Patient Treated at different State Ayurvedic Dispensaries (SAD), North 24 Parganas

Sl. No.	Name of SAD	Month of Jan.'09 to June 09.	Month of Jan. 08 to June 08
1	Bagdah SAD	6789	5365
2	Bongaon SAD	4033	2800
3	Gaighata SAD	3857	4029
4	Nazat SAD	4264	3536
5	Baduria SAD	4253	3595
6	Basirhat SAD	3846	3275
7	Palta SAD	3195	1688
8	Barasat SAD	2110	1035
9	Birati SAD	2015	2058
10	Baranagar SAD	3357	2108
11	Rajarhat SAD	2166	3327
Total		39885	32816

Source: CMOH, North 24 Parganas, August 2009.

In state Homeopathic dispensaries, the number of patients treated had been much higher. Thus during first 6 months of 2009, more than 10,000 people were treated in Ashoknagar SHD. The number of patients treated in Swarupnagar SHD was 13465. The number was 12429 in Kamargathi SHD. The total number of patients treated in 17 SHDs of the district was 139554 in the same period. (Table 6.5.12).

Table 6.5.12: Patients Treated at Different State Homeopathic Dispensaries (SHD) in the District

Sl No.	Name of the S.H.D.	Jan,09 to June,09	Jan,08 to June,08
1	Ashoknagar S.H.D.	10311	11120
2	Barasat S.H.D.	9561	6451
3	Barrackpore S.H.D.	9252	8112
4	Basirhat S.H.D.	12335	11932
5	Dakshin Chatra S.H.D.	10470	8941
6	Deganga S.H.D.	5092	4562
7	Dum Dum Park S.H.D.	3319	3658
8	Gaighata S.H.D..	8843	7721
9	Ghola S.H.D.	8867	7861
10	Gopalpur S.H.D.	7033	6065
11	Halisahar S.H.D.	6212	6755
12	Kamargathi S.H.D.	Report not available	Report not available
13	Kamargathi S.H.D. / PHC	12429	13833
14	Nazat S.H.D.	4885	5319
15	Sandeshkhali R.H.	4952	5767
16	Sandeshkhali S.H.D.	5085	6384
17	Sankchura Bagundi S.H.D.	7443	6675
18	Swarupnagar S.H.D.	13465	11767
Total		139554	132923

Source: CMOH, North 24 Parganas, August 2009

6.6 Diseases in the District

Endemic Diseases

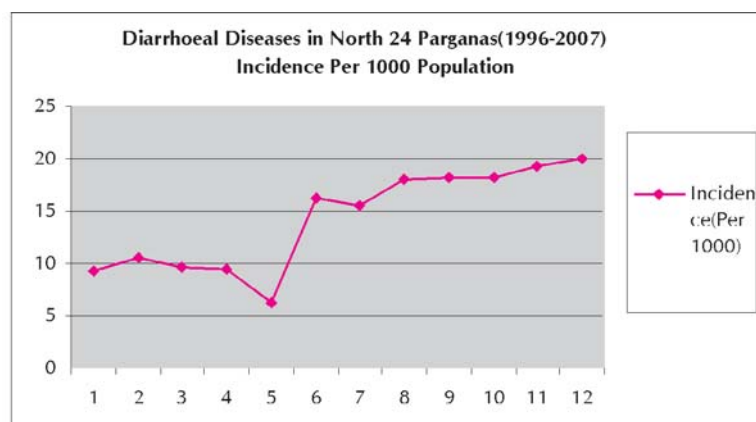
The major public health problems of the district are water borne diseases, especially acute diarrhea, frequent outbreaks of gastroenteritis and acute respiratory infections. Malaria and Kala azar were there, recently some outbreaks of Dengue & Chickungunya reported from the district. Tuberculosis still has a major impact on morbidity as the faltering case detection and missing sputum negative cases by the system. The trend in sexually transmitted diseases including HIV is on the rise. The number of persons coming to the voluntary counselling centres, counselled and treated is rising.

Table 6.6.1: Diarrhoeal diseases in North 24 Parganas, 1996 to 2007

Year	Cases (OPD + IPD)	Death (Per 1000)	Incidence	Case fatality ratio (%)
1996	67932	32	9.3	0.05
1997	76778	43	10.5	0.06
1998	70465	78	9.7	0.11
1999	68256	28	9.47	0.04
2000	44878	65	6.2	0.14
2001	145462	72	16.3	0.05
2002	138684	84	15.5	0.06
2003	161300	96	18.0	0.06
2004	162677	74	18.2	0.04
2005	162733	72	18.2	0.04
2006	172088	55	19.3	0.03
2007	178381	66	20.0	0.03

Source: Dy.CMOH II office, North 24 Parganas

The data indicate that diarrhoeal diseases including cholera are a major problem in the district. Some blocks were also affected by *Vibrio cholera*. The surveillance data on diarrhea shows an increase during 1996 and 2007. This might be due to increased morbidity and partly due to improved reporting system. Be that as it may, the incidence of diarrhea is increasing in recent years. The data indicate that the incidence per 1000 was as high as 20 in 2007 (Figure 6.6.1). One should however note that the case fatality ratio is rather low with respect to diarrhoeal diseases. There had been 66 deaths out of 178381 reported cases of diarrhea in 2007, the year in which the number of reported cases had been the highest. The case fatality ratio had been quite low in the previous years. The disquieting feature, however, is that the incidence of death per thousand has increased substantially during 2001-07.

Figure 6.6.1: Diarrhoeal Diseases in North 24 Parganas (1996-2007)

Years: 1.1996, 2.1997, 3.1998, 4.1999, 5.2000, 6.2001, 7.2002, 8.2003, 9.2004, 10.2005, 11.2006, 12. 2007

Source: Deputy. CMOH II office, North 24 Parganas

Increased incidence of diarrhea diseases is possibly due to lack of health awareness, lack of supply of safe drinking water and improper sanitary standard of the population of the district. However, as the data indicate during this period the case fatality rate declined which may be the outcome of improved health care facility up to the village level and successful use of oral rehydration salts.

Table 6.6.2: Status of ARI, Measles and Enteric fever, North 24 Parganas, 2000-2007

Year	ARI				Measles				Enteric fever			
	Cases (OPD+ IPD)	Incidence rate in 1000	Death	CFR in 100	Cases (OPD+ IPD)	Incidence rate in 1000	Death	CFR in 100	Cases (OPD+ IPD)	Incidence rate in 1000	Death	CFR in 100
2000	17472	2.4	4	0.02	1351	0.18	0	0	2091	0.29	0	0
2001	92628	10.37	9	0.01	3045	0.34	0	0	4425	0.49	1	0.02
2002	102016	11.42	114	0.11	1055	0.12	1	0.09	1566	0.18	1	0.06
2003	131734	14.74	74	0.06	1654	0.19	0	0	4006	0.25	6	0.15
2004	118550	13.27	29	0.02	1680	0.19	0	0	3549	0.4	2	0.06
2005	144629	16.19	28	0.02	1232	0.14	2	0.16	9368	1.05	5	0.05
2006	127272	14.25	76	0.06	2453	0.27	0	0	12374	1.39	5	0.04
2007	157953	17.68	24	0.02	807	0.09	1	0.12	15394	1.72	9	0.06

Source: Dy.CMOH III office, North 24 Parganas

Acute respiratory tract infection (ARI) is also highly prevalent in the district. The increased burden of pollution particularly in semi-urban areas is the reason behind the spread of ARI. One should however, mention that there was sudden increase of cases in 2001 and 2002. Death in 2002 was considerably higher in comparison to previous years. Lack of awareness, improper housing standard and large family might be the causes of increased morbidity. Reported measles cases decreased over the years but two deaths occurred in 2005 and one in 2007.

Outbreaks of enteric fever were reported mainly from urban slums. The surveillance data confirms increase in trend between 2000 and 2007. Most of the outbreaks reported deaths (nine deaths in 2007). Investigations of the outbreaks suggested contamination of pipeline water supply by sewerage.

Tuberculosis

Tuberculosis, a disease which is prevalent among the under-fed people of the district creates a major health hazard for the people living in this district. Poor socio-economic standard, bad housing, large family and lack of awareness might be responsible for high prevalence of this disease. The number of Nsp+ cases recorded in the district was as high as 5213 in 2006. The total cases detected was as high as 10907. The cure rate is also quite impressive (Table 6.6.3). This is largely due to the fact that from 1st March 2001, Revised National Tuberculosis Control Programme (RNTCP) was initiated in the district. The entire district is now covered under RNTCP network. Detection of New sputum positive (N Sp+ve) cases, sputum conversion and cure rate of N Sp+ve cases are increasing steadily. The trend of development is positive and encouraging.

Table 6.6.3: Status of Tuberculosis (RNTCP), North 24 Parganas, 2001 to 2006

Year	Total NSp+ case	Annualized case detection rate of Nsp+ cases (per 100000 pop.)	Total case detected	Annualized case detection rate of all cases (per 100000 pop.)	Sputum conversion of Nsp+ cases	Cure rate of Nsp+ cases
2001	2095	28	5420	73	90%	80%
2002	2901	32	7364	82	90%	88%
2003	2964	33	7689	86	90%	90%
2004	2128	44	9346	100	92%	90%
2005	4995	52	10560	111	91%	90%
2006	5213	55	10907	114	90%	89%

Source: District TB Center, North 24 Parganas

RNTCP — Revised National Tuberculosis Control Programme

SHIS an NGO, in Bhangar, South 24 Parganas, West Bengal, runs seven TB units (TUs) in the Sundarbans, about 40 km from Kolkata. Four TUs area in North 24 Parganas functioning since 2002 till today. SHIS has generated awareness among private practitioners regarding identifying and observing treatment of TB patients as per RNTCP guidelines. They have involved practitioners from allopathic as well as other systems of medicine, who provide treatment observation either at one of their own facilities or at any other mutually convenient place.

Malaria

Malaria is another disease that the people of the district suffer from. The official data, as reported in Table 6.6.4 does not reveal the true intensity of this disease because huge urban area in Barrackpore sub-division is not included in this data set. The other point to be noted is that the cases diagnosed by the private practitioners are mostly not reported. As per district health authority, most of these cases, particularly the PFs, are imported from Kolkata and neighboring districts. Total cases detected in 2007 were 381, according to the official data. Two cases of death were also reported in 2007.

Table 6.6.4: Status of Malaria (excluding Barrackpur Sub-division), North 24 Parganas, 1996 to 2007

Year	P. Vivax	P. Falciparum	Total	Death
1996	414	55	469	0
1997	405	49	454	0
1998	449	58	476s	0
1999	436	40	476	0
2000	267	33	300	0
2001	180	21	201	0
2002	119	20	139	0
2003	74	3	77	0
2004	470	26	496	0
2005	404	47	451	0
2006	463	53	516	2
2007	337	44	381	2

Source: Dy.CMOH II office, North 24 Parganas

Kala-azar

Kala-azar is a typical public health problem in this district. It is endemic in 5 blocks. Sporadic cases are found in almost all blocks and in many of the municipalities. In the municipal areas, the cases are mostly imported from Bihar. But in rural area, presence of sand fly has been detected. Local spread is believed to be present. In Kansona village of Bongaon sub-division, increased number of PKDL cases is detected without having a definite history of Visceral Leishmaniasis. The incidence of reported Kala-azar cases declined over the years. It was 420 during 1996 and 32 during 2007. No deaths due to kala-azar was reported since 2001.

Leprosy

Table 6.6.5: Status of Leprosy in North 24 Parganas from 2000-2008

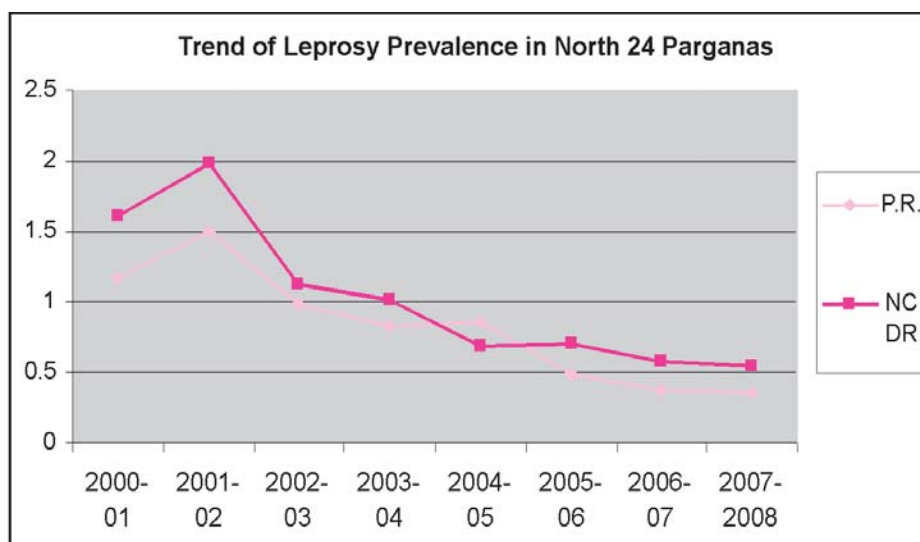
Year	Population	PB		MB		Total (New case detected and Balance cases)			Prevalence of Leprosy (per 10,000 population)
		New Cases Detected	Balance Cases	New Cases Detected	Balance Cases				
2000-01	9049309	753	348	708	713	1101	1421	2522	2.79
2001-02	9049457	969	568	827	794	1537	1621	3158	3.49
2002-03	9076752	529	301	495	588	830	1083	1913	2.11
2003-04	9225611	448	0	491	0	448	491	1700	1.84
2004-05	9530692	229	324	427	496	553	923	1476	1.55
2005-06	9686995	277	116	403	349	393	752	1145	1.18
2006-07	9845862	237	93	328	270	330	598	928	0.94
2007-08	10007334	217	75	335	291	292	626	918	0.92

PB: paucibacillary, MB: multibacillary

Source: CMOH, North 24 Parganas August 2009

Another public health problem in the district is the prevalence of both paucibacillary and multibacillary types of leprosy. New cases detected with respect to PB had been 753 in 2000-01. Such cases were detected also in other years. However, the number of such cases has declined since 2004-05. More problematic is the issue of MB type leprosy. 827 such cases were detected in 2001-02. The number of new cases definitely declined over time (Table 6.6.5). But then the number of such cases is still higher than those of PB cases. If we consider the new detected cases and the balanced cases (i.e. such old cases which are still to be cared for) the number was counted as 3158 in 2001-02. One should however note that incidence of leprosy per ten thousand population is definitely declining over time (Fig 6.6.2).

Figure 6.6.2: Trend of Prevalence of Leprosy in North 24 Parganas



PR: Balance Cases out of total population* 10000
 NCDR: New case detected out of total population*10000
 Source: CMOH, North 24 Parganas, August 2009

Chikungunya

Chikungunya infection is a debilitating viral illness caused by arbovirus, the Chikungunya virus transmitted by the bite of infected *Aedes* mosquito, primarily *Aedes aegypti*, which are day biters and epidemics are sustained by human-mosquito-human transmission. These mosquitoes usually breed in clean water collections in containers, tanks, disposables, junk materials in domestic and peri-domestic situation, etc. The disease often presents with sudden onset of fever that may be accompanied by chills, headache, nausea, vomiting, severe joint pain and rash. Migratory polyarthrititis usually affects the small joints. The joints of the extremities in particular become swollen and painful to the touch. Haemorrhage is rare and all but a few patients recover within 3-5 days. Residual arthritis, with morning stiffness, swelling and pain on movement may persist for weeks or months after recovery. A full-blown disease is most common among adults.

Outbreaks of Chikungunya have been reported from Sub-Saharan Africa, Southeast Asia including India, Pakistan and the Philippines. It occurs principally during the rainy season when there is an increased population density of *Aedes aegypti*. Typically, the outbreaks are explosive, with infection of large proportion of the susceptible population within a few weeks. Prolonged evolutions are possible, with multiple peaks. Though the disease is traditionally considered benign, the recent outbreak on the French "Reunion" island in the Indian Ocean led to the reports of a number of severe events including mother to child transmission, meningo-encephalitis and deaths.

Since the end of 2004, Chikungunya virus has emerged in the islands of the southwestern Indian Ocean and affected several countries including Comoros, Mayotte, Seychelles, Reunion, Mauritius and Madagascar. Phylogenetic analysis indicated that the Indian Ocean outbreak was caused by the same strain in these islands, and showed that the outbreak strain was related to East-, Central-, and South-African isolates. In India, the first outbreak of Chikungunya was reported in 1963 in Kolkata and another in Madras in 1965. Since then, several large-scale outbreaks were reported from different parts of the country till 1973.

Interestingly, during late 70s and early 80s, no Chikungunya activity was reported from India and hence it was hypothesized that the virus has disappeared from India. However, the virus has recently re-emerged in the country possibly through migrations in the Indian Ocean. Since December 2005, large number of cases of Chikungunya has been reported from several Indian states including Andhra Pradesh, Maharashtra, Karnataka, Tamilnadu and Madhya Pradesh. September 2006, peripheral health workers reported an increase in the number of patients with high fever, headache, nausea, vomiting, severe joint pain and rash from Ramchandrapur gram panchayat area. No similar episode occurred in last five years. The DOIT investigated the outbreak. They identified a total of 1304 cases meeting the Chikungunya case definition in Ramchandrapur gram panchayat area (Attack rate: 7%). There were no deaths. Approximately 5000 suspected cases were reported from Baduria and Swarupnagar block of North 24 Parganas district. During 3rd week of July 2007, peripheral health workers reported an increase in the number of patients with high fever, headache, nausea, vomiting, severe joint pain and rash from Habra –I block and Habra municipality. The presence in North 24 Parganas district of a team of public health personnel provided an opportunity to investigate this outbreak to identify the agent, describe the distribution of the disease by time, place person at the level of a village, identify factors supporting breeding of the vector and propose control measures. The cases were analysed by experts and the necessary measures (including preventive measures) were taken.

West Bengal's avian influenza epidemic has spread from backyard poultry to the organised sector and entered North 24 Parganas district as well, with reports of 3,500 chicken dying at a poultry growing unit at Baduria on 29.01.08, Tuesday, barely 25 kilometres from Kolkata. According to an official press release, the Bhopal-based High Security Animal Disease Laboratory (HSADL) has confirmed positive results for avian influenza (H5) in respect of samples from Haringhata block and Kalyani Municipality of Nadia district and Canning II block of South 24 Parganas district in West Bengal on the basis of rapid tests 163 villages in eight blocks (Bongaon, Gaighata, Habra-I, Swarupnagar, Baduria, Amdanga, Barrackpore-I, Minakhan) were affected and the population under Surveillance was 872889. In addition, 75 wards in four municipalities (Halisahar, Kanchrapara, Gobordanga, Naihati) were affected.

On emergency basis, the health personnel were deputed and culling operation was taken up in the affected areas. Altogether 201630 birds were culled. Surveillance activity was conducted in 0-3 Km and 3-10 Km area. In 0-3 Km areas a population of 50007 had been covered. In 3-10 Km the teams had covered 357246. 660 cases of fever/URI had been detected [87 in 0-3 Km area and 573 in 3-10 Km area]. None of them had exposure history. One person with fever/URI was under observation in the hospital. A total of 397 animal health workers (veterinary surgeon, poultry workers, cullers, spraying workers etc.) were deputed and they were under chemoprophylaxis. 1412 Health personnel (medical officers, health supervisors and health workers and hospital staff) were deputed for medical supervision.

6.7 Status of Drinking Water and Sanitation

Many of the public health related problems crop up due to poor sanitation and the non-availability of safe drinking water. Total Sanitation Campaign (TSC) sponsored by the GOI attempts to address the issue of poor sanitation in rural India. The district has taken up this programme in all the rural blocks of the district since 2001-02. As the data indicate, the district has achieved a measure of success in TSC. The target was to cover 509549 households, 289501 of which were to be BPL families. As reported in Table 6.7.1, 92.74 percent of the target has been achieved by July 2008. With respect to the BPL families, the success rate was 88.09 percent. For the APL families, the success rate was as high as 98.85 percent. The block specific information indicates that the target has been overfulfilled in Basirhat II, Hasnabad, Haroa, Sandeshkhali I, Barrackpore I, Barrackpore II and Gaighata. The success rate was poor in Baduria. In Baduria, the TSC could cover only 31.9 percent of the targeted APL families. For the BPL families however, the success rate was 81.06 percent. In Barasat II, only 45.27 percent of the targeted BPL families could be covered. But in Barasat I, the campaign for the targeted BPL families was over fulfilled.

Table 6.7.1: Total Sanitation Campaign in Rural North 24 Parganas: Fact sheet

Name of the Block	TARGET FOR IHHL (As per BLS)			ACHIEVEMENT SINCE INCEPTION UPTO JULY 2008		
	APL	BPL	TOTAL	APL	BPL	TOTAL
Swarupnagar	13413	17594	31007	9133	12132	21265
Baduria	15482	16233	31715	4939	13160	18099
Basirhat-I	7417	11457	18874	8596	8481	17077
Basirhat-II	14485	6878	21363	10152	14286	24438
Hasnabad	12253	11618	23871	13260	12815	26075
Haroa	15208	8258	23466	15435	11012	26447
Hingalganj	9771	18647	28418	9072	15267	24339
Minakhan	8771	15839	24610	9333	15374	24707
Sandeshkhali-I	6084	15137	21221	3460	22376	25836
Sandeshkhali-II	5048	13309	18357	4892	13637	18529
Barrackpore-I	6970	2483	9453	8940	4393	13333
Barrackpore-II	4818	2272	7090	5045	2290	7335
Barasat-I	9553	10648	20201	7523	10672	18195
Barasat-II	4374	14543	18917	7591	6584	14175
Deganga	16688	16314	33002	17397	15966	33363
Habra-I	15458	12672	28130	15839	9397	25236
Habra-II	10667	7241	17908	12600	6526	19126
Amdanga	8356	9004	17360	6258	9595	15853
Rajarhat	8271	3456	11727	3928	1759	5687
Bagdah	7355	25554	32909	10354	19285	29639
Bongaon	12426	30207	42633	21566	13351	34917
Gaighata	7180	20137	27317	12210	16675	28885
TOTAL	220048	289501	509549	217523	255033	472556

Source: District Water and Sanitation Cell, North 24 Parganas

IHHL — Institutional House Hold Level, BLS — Block Level Survey

Typically, the villagers in North 24 Parganas , get drinking water from tube wells. Tube well is the sources of drinking water in 1244 out of 1572 villages in the district.

Table 6.7.2: Sources of Drinking Water in the Villages of North 24 Parganas

Source	Canal	Hand Pump	Tap water	Tank Water	Tube well Water	Well water	None	Total
Bagdah	0	0	24	1	81	0	0	106
Bongaon	0	1	78	0	69	0	1	149
Gaighata	0	0	0	0	105	0	0	105
Swarupnagar	0	0	12	2	51	1	0	66
Habra - I	0	0	6	0	52	0	0	58
Habra - II	0	0	15	0	63	0	0	78
Amdanga	1	0	10	0	69	0	0	80
Barrackpore - I	0	1	8	1	33	0	0	43
Barrackpore - II	0	0	0	1	20	0	0	21
Barasat - I	0	1	10	3	67	0	0	81
Barasat - II	0	0	1	16	60	0	0	77
Deganga	0	0	13	0	95	0	0	108
Baduria	0	0	26	0	71	0	0	97
Basirhat - I	0	0	20	0	41	0	1	62
Basirhat - II	0	3	6	0	57	0	2	68
Haroa	0	0	4	0	86	0	0	90
Rajarhat	0	0	3	7	28	0	0	38
Minakhan	0	0	0	0	73	0	1	74
Sandeshkhali - I	0	0	2	1	27	0	0	30
Sandeshkhali - II	0	0	7	0	17	0	0	24
Hasnabad	0	0	20	0	53	0	0	73
Hingaljanj	0	0	17	1	26	0	0	44
District	1	6	282	33	1244	1	5	1572

Source: Census, 2001

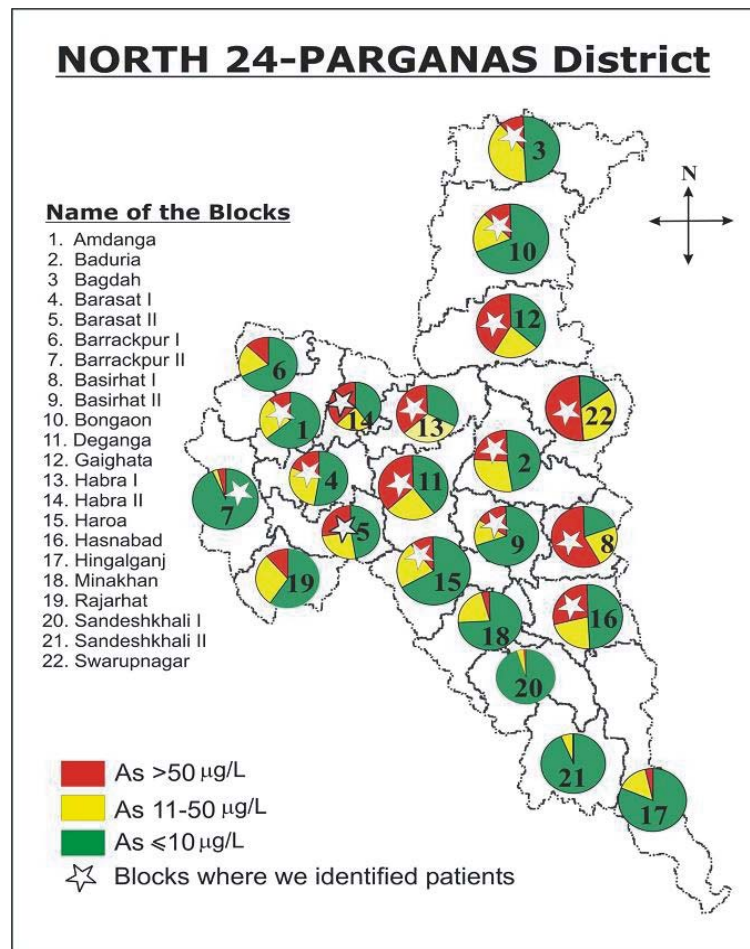
Tap water which is considered to be safer than tube well water, is available only in 282 villages, according to Census 2001. Block specific information on sources of drinking water in the villages of North 24 Parganas indicate that the highest number of villages having tap water as the source of drinking water is in Bongaon. In fact, 78 out of 149 villages in Bongaon are covered by tap water sources. There is no tap water source in Gaighata, Minakhan and Barrackpore II. The coverage under tap water is very poor in Barasat II. In Swarupnagar which is known to be the arsenic affected block, tap water is available only in 12 out of its 66 villages. There is no source of drinking water in one village in Bongaon. The number of such villages in Basirhat I and II are one and two respectively. According to Census 2001, there is one village in Minakhan which does not have any source of drinking water.

6.8 Arsenic Contamination

For a vast area of the district in which tube wells are the sources of drinking water there exists a serious problem of arsenic contamination. According to PHE, population exposed to arsenic pollution in North 24 Parganas is in the order of 1242392. The problem of arsenic contamination is rooted in the very nature of the aquifer of the district. The district of North 24 Parganas of West Bengal is in the southern part of the Bengal Basin. The basin is actually a peri-cratonic basin and comprises of Ganga-Brahmaputra delta in the southern-part. There is a thickening of the Ganga-Brahmaputra delta towards the south and has three stratigraphic sequence – the proto-Ganges delta, the transitional delta and the modern delta(11 Myr ago) with a successive sequence of sands, sandy mud, silt and mud which were deposited under a major ecstatic sea level low at about 11 Myr ago. The modern delta has been formed primarily of alluvial sediments transported by the rivers, e.g. the Mayurakshi, the Ajoy, the Damodar etc. originating from the Chotonagpur Uplands in the west and subsequently by the rivers flowing from the Himalayan fore deep basin e.g. the Ganges, the Padma, the Bhagirathi, the Brahmaputra etc. flowing from the north. As they met, a gap, the Garo-Rajmahal gap, was created due to tectonic movements. In this region there are three stages of aquifers. There exists a shallow aquifers (12 - 15 m below ground level) in the upper delta plain and is mostly under unconfined conditions except near its southern fringe where it occurs under semi-confined to confined conditions. There are two more aquifers with depths ranging from 35 to 46 m and 70 to 150 m in the districts North 24-Parganas. All the aquifers are interconnected due to spatial variations in grain size.

The intermediate aquifer, constituted of sub-angular to sub-rounded medium sand, sandy clay and clay with fine sands usually shows arsenic contamination. To date, the PHE has analyzed 54368 hand tube well water samples from 2848 villages/wards from 312 GPs/ Municipal area of all 22 blocks of North 24 Parganas. Arsenic concentration above 10 $\mu\text{g/L}$ was observed in 29023 (53.4%) hand tube wells and above 50 $\mu\text{g/L}$ in 16020 (29.5%) and 1834 (3.4%) of the tube wells had arsenic concentrations above 300 $\mu\text{g/L}$. 2127, 1481 and 398 villages contained arsenic above 10, 50 and 300 $\mu\text{g/L}$ respectively and in 22, 21 and 16 blocks arsenic above 10, 50 and 300 $\mu\text{g/L}$ was noted respectively.

Only one block “Sandeshkhali-II” was arsenic safe according to Indian standard (50 $\mu\text{g/L}$) and in Sandeshkhali-I only 0.6% tubewells exceeds 50 $\mu\text{g/L}$. The probable reason may be, in Sandeshkhali-I and Sandeshkhali-II, most of the tubewells were deep tube wells. Shallow tube wells are saline, so people do not construct shallow tube wells. Due to the same reason we could not find arsenic in the southern part of Hingalganj block as all the tube wells were of higher depth. But we found arsenic in the northern part of Hingalganj block as it is close to Hasnabad block where shallow tube wells with sweet water are available. Arsenic level above 1000 $\mu\text{g/L}$ was found in 49 tube wells; the maximum arsenic contamination level found in this district is 2830 $\mu\text{g/L}$ in the Baduria block.



Some of the steps taken by PHE for providing arsenic-free water to the affected rural population are:

1. Tapping a deeper third layer beyond 100-150 metres below ground level, which is found to be arsenic-free.
2. Adopting arsenic removal technique through domestic filters, attached hand pumps and arsenic removal plants in piped water supply schemes:
 - i. Oxidation followed by coagulation and filtration – a widely popular option;
 - ii. Absorption, also widely adopted;
 - iii. Ion exchange; and
 - iv. Osmosis, which is yet to gain popularity.
3. Utilizing surface water from rivers, lakes, ponds, which is normally free from arsenic contamination;
4. Sanitary protected ring-wells tapping the shallow aquifers.

The Government of India introduced an 'Arsenic Sub-mission' in 1994 under the Rajiv Gandhi National Drinking Water Mission to tackle the arsenic problem in West Bengal on a 75:25 cost sharing basis between the Centre and the State. A large number of projects with a total outlay of Rs. 372.70 crore have been sanctioned under this Sub-mission. Hazards of Arsenocosis still exist in the district. Deaths due to chronic Arsenocosis are also reported in every year.

CHAPTER - 7

Chapter 7

EDUCATION IN NORTH 24 PARGANAS

7.1 Introduction

In this Chapter of the District Development Report, we shall discuss the achievements and the challenges that the district is facing with respect to education. The Chapter will discuss first the progress of literacy in the district. The scenario with respect to the elementary education for the children in 6-14 age groups will then be discussed. The progress of Sarva Shiksha Aviyon (SSA) will also be the subject matter for discussion in this part of the report. The quality of learning, the retention rates in schools and the situation in state run schools would also be discussed in this part of the report. The information that we could gather with respect to the education in high schools and higher secondary schools of the district will be presented in the subsequent section of the report. The report will also contain a section in which the situation with respect to college education, the professional courses and the vocational trainings would be analysed with the help of the official data.

7.2 Literacy in the District

According to Census 2001, the literacy rate in the district is 78.07. Among 19 districts of the state, the district ranks second (first is Kolkata) in terms of the achievement in the spread of literacy. 83.92 percent of the male in the district is literate (rank 2). The female literacy rate is lower; 71.72 percent of the female in the district is literate according to Census 2001. The female literacy rate is typically lower than the male literacy rate in other districts as well.

Table 7.2.1: Progress in Literacy in the District (1991-2001)

Name of the Block	Literacy Rate 1991	Literacy Rate_2001	Inter census gain	Literacy Rate (Male)_91	Literacy Rate (Male)_2001	Inter census gain (Male)	Literacy Rate (Female)_91	Literacy Rate (Female)_2001	Inter census gain (Female)
Bagdah	48.77	66.59	17.82	58.69	74.12	15.43	37.97	58.67	20.7
Bongaon	52.76	70.74	17.98	61.92	77.79	15.87	42.85	63.19	20.34
Gaighata	61.91	74.85	12.94	72.17	82.16	9.99	50.8	67.11	16.31
Swarupnagar	52.49	69.15	16.66	62.18	76.02	13.84	42.25	61.95	19.7
Habra - I	64.59	76.63	12.04	74.1	83.65	9.55	54.37	69.1	14.73
Habra - II	59.08	73.15	14.07	68.9	79.76	10.86	48.59	66.1	17.51
Amdanga	58.47	71.38	12.91	68.68	77.91	9.23	47.43	64.32	16.89
Barrackpore - I	68.4	77.7	9.3	77.67	84.42	6.75	58.09	70.43	12.34
Barrackpore - II	65.6	79.84	14.24	74.11	85.6	11.49	56.01	73.51	17.5
Barasat - I	56.05	72.26	16.21	64.36	77.88	13.52	46.94	66.22	19.28
Barasat - II	53.11	68.97	15.86	63.18	75.89	12.71	42.11	61.34	19.23
Deganga	52.42	68.34	15.92	62.2	74.88	12.68	42.07	61.42	19.35
Baduria	55.11	70.62	15.51	65.36	76.93	11.57	44.26	64.02	19.76
Basirhat - I	44.72	62.27	17.55	54.64	69.29	14.65	34.07	54.92	20.85
Basirhat - II	54.2	68.03	13.83	64.18	74.65	10.47	43.69	61.06	17.37
Haroa	43.62	62.82	19.2	55.24	71.66	16.42	31.05	53.34	22.29

Table 7.2.1: Contd.

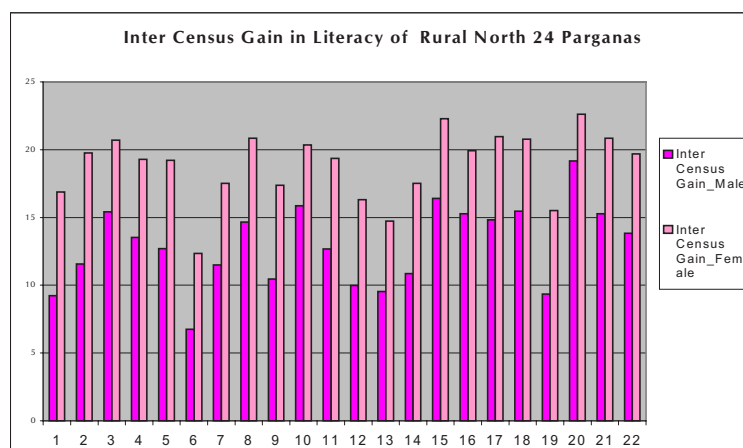
Name of the Block	Literacy Rate 1991	Literacy Rate_2001	Inter census gain	Literacy Rate (Male)_91	Literacy Rate (Male)_2001	Inter census gain (Male)	Literacy Rate (Female)_91	Literacy Rate (Female)_2001	Inter census gain (Female)
Rajarhat	62.6	74.83	12.23	72.49	81.83	9.34	51.76	67.27	15.51
Minakhan	40.61	58.65	18.04	53.8	69.25	15.45	26.45	47.23	20.78
Sandeshkhali-I	37.73	58.45	20.72	50.93	70.1	19.17	23.53	46.15	22.62
Sandeshkhali-II	41.42	59.31	17.89	55.75	71.03	15.28	25.9	46.75	20.85
Hasnabad	46.01	63.45	17.44	56.76	72.03	15.27	34.49	54.41	19.92
Hingalganj	52.42	70.07	17.65	66.5	81.34	14.84	37.21	58.18	20.97
Rural	53.36	69.69	16.33	63.78	77.20	13.42	42.12	61.71	19.59
Urban	78.48	85.45	6.97	83.93	89.93	6.00	72.22	80.51	8.29
Total	66.81	78.07	11.26	74.72	83.92	9.2	57.99	71.72	13.73

Source: Provisional Population Totals 2001

One should however mention that North 24 Parganas is also the second in terms of female literacy rate, among the districts of the state.

There was a perceptible improvement in spread of literacy between 1991 and 2001 in both urban and rural segments of the district. The literacy rate of rural North 24 Parganas was 53.36 in 1991. By 2001, it increased to 69.69 percent. In urban North 24 Parganas, the literacy rate in 1991 was 78.48. By 2001, the rate increased to 85.45. The gain in terms of percentage points was 16.33 in rural, and in urban it was 6.97.

Figure 7.2.1: Inter Census Gain in Literacy of Rural North 24 Parganas



Name of the Blocks: 1. Amdanga, 2. Baduria, 3. Bagdah, 4. Barasat – I, 5. Barasat – II, 6. Barrackpore – I, 7. Barrackpore – II, 8. Basirhat – I, 9. Basirhat – II, 10. Bongaon, 11. Deganga, 12. Gaighata, 13. Habra – I, 14. Habra – II, 15. Haroa, 16. Hasnabad, 17. Hingalganj, 18. Minakhan, 19. Rajarhat, 20. Sandeshkhali – I, 21. Sandeshkhali – II, 22. Swarnnagar
Source: Provisional Population Totals, 2001

Inter-Census gain in literacy rate was the highest in Sandeshkhali I. In 1991, 37.72 percent of the people in Sandeshkhali I was literate. By 2001, the literacy rate increased to 58.45 percent. The inter-census gain was thus 20.72 percentage points in Sandeshkhali I. The gain was also impressive in Minakhan (18.03 percentage points), Sandeshkhali II (17.89 percentage points), Hasnabad (17.44 percentage points) and Hingalganj (17.65 percentage points). With respect to the male literacy rate, the gain in Sandeshkhali I was very high (Figure 7.2.1). So also was the case with respect to Minakhan and Hasnabad. The most impressive was the

inter-census gain with respect to the female literacy rate in almost all the blocks of rural North 24 Parganas. The female literacy rate increased from 25.9 percent to 46.75 percent in Sandeshkahli II. In Minakhan also, it has increased from 26.45 percent to 47.37 percent between two Census years. One should point out that the spread of literacy among the women increased in all the blocks in the district in a noteworthy way (Figure 7.2.1). In Bagdah, for example, the inter-census gain in female literacy rate was 20.7 percentage points. In Bongaon, the female literacy rate increased from 42.85 percent to 63.19 percent between 1991-2001.

The baseline study that was taken up by ORG MARG collected information on the level of literacy with respect to the members of the visited households. As the field data indicate, the level of education of the heads of the visited households in all the areas of rural North 24 Parganas was very poor. In SA for example, in 165 out of 500 visited households, the Head of Household (HOH) was found to be illiterate. In BA, the percentage of illiterate among the HOH of the visited households was 31.2 percent. The relevant percentage was lower in ORA (28). In the Urban UFS blocks the percentage of illiterate HOH in the slum households was as high as 45.8 (Table 7.2.2). In fact, the illiteracy among the HOHs was the highest not in any rural area but in the urban slums of the district, according to the findings of the field survey. In non-slum area, the percentage of illiterate among the HOH was rather low; even then one should point out that it was not as low as one would usually expect. The percentage was 17.8.

SA-Sunderban Area, BA-Border Area, ORA-Other Rural Area.

Table 7.2.2: Level of Education of Head of Household in North 24 Parganas

Literacy of HoH	Sunderban Area		Border Area		Other Rural area		Non slum area		Slum area	
	N	%	N	%	N	%	N	%	N	%
Illiterate	165	33	156	31.2	140	28	107	17.8	229	45.8
Literate but without formal schooling	60	12	39	7.8	35	7	12	2	6	1.2
Less than primary	62	12.4	51	10.2	53	10.6	40	6.7	53	10.6
Primary school (up to Class V.)	97	19.4	73	14.6	111	22.2	44	7.3	56	11.2
Middle school (up to Class Viii)	76	15.2	96	19.2	94	18.8	102	17	66	13.2
High school / Matriculate (up to Class X)	23	4.6	46	9.2	42	8.4	129	21.5	64	12.8
Higher Secondary /Intermediate (up to Class XII)	6	1.2	14	2.8	10	2	50	8.3	12	2.4
Technical Education/ Diploma	3	0.6	7	1.4	2	0.4	16	2.7	1	0.2
General Graduate	4	0.8	14	2.8	9	1.8	70	11.7	10	2
Professional Degree	0	0	2	0.4	3	0.6	13	2.2	1	0.2
Post Graduate and above	3	0.6	2	0.4	0	0	17	2.8	0	0
Other	1	0.2	0	0	1	0.2	0	0	2	0.4
Total	500	100	500	100	500	100	600	100	500	100

Base: 500 (other than non slum area), 600 for non slum areas

Source: Base Line Survey 2008, ORG MARG

N-Number

Even when the HOH were found to be literate, in all the areas including the non-slum UFS blocks, the percentage of the HOHs having educational qualification at higher secondary and above was abysmally low. For example, in SA the percentage of HOH with formal education at higher secondary and above was 3.2. In BA, it was 7.8. In ORA, the relevant percentage was 4.8. However, in non-slum urban areas the percentage of HOHs with higher secondary plus level of educational attainment was 27.7. There was not even a single HOH in SA with professional degree. The percentage of HOH having technical education/ diploma was as low as 0.4 in ORA.

Table 7.2.3: Level of Education of all Members in Surveyed Households of North 24 Parganas

Level of Educational Attainment	Riverine Area		Border Area		Other Rural Area		Nonslum		Slum Area	
	N	%	N	%	N	%	N	%	N	%
Illiterate	549	21	433	18	438	18	244	10	660	27
Literate but without formal schooling	162	6	130	6	82	3	34	1	24	1
Less than primary	421	16	299	13	304	13	242	10	350	14
Primary school (up to 5th.)	601	23	446	19	567	23	223	9	350	14
Middle school (up to 8th)	392	15	533	23	492	20	460	19	375	15
High school /Matriculate (up to 10th)	161	6	212	9	228	9	456	19	356	14
Higher Secondary/ Intermediate (up to 12th)	45	2	67	3	67	3	255	10	105	4
Technical Education/ Diploma	10	0	16	1	15	1	53	2	13	1
General Graduate	25	1	54	2	47	2	271	11	61	3
Professional Degree	2	0	7	0	11	1	43	2	3	0
Post Graduate and above	8	0	5	0	6	0	40	2	5	0
Not Schooling age	197	8	154	7	162	7	133	5	166	7
Other	4	0	1	0	15	1	1	0	9	0
Total	2577	100	2357	100	2434	100	2455	100	2477	100

Base : All Family Members

Source: Base Line Survey 2008, ORG MARG

N-Number

In the surveyed households the overall literacy rate was about 80 percent. As Table 7.2.3 indicates, two areas of the district, namely, the SA and urban slum area are lagging in terms of literacy rate. The percentage of illiterates was in fact the highest (27) in urban slum areas. The other important point to be noted is that the level of educational attainment is quite poor for the members of the visited households, even when they were found to be literate. The percentage of general graduates was just one in SA. In ORA as well as in BA, only 2 percent of the members of the households were found to be general graduates. In urban non-slum areas the percentage was higher (11), but then it was as low as 3 percent in urban slum areas. The percentage of household members having higher secondary plus level of educational attainment was very poor in SA, BA, ORA as also in urban slum areas. In non-slum urban household however the percentage of such people was quite high (27 percent).

SA-Sunderban Area, BA-Border Area, ORA-Other Rural Area.

7.3 Primary Education in the District

Enrolment in Primary and Upper Primary Schools

Primary education is considered to be one of the basic needs for developing the quality of workforce. As the workforce remains uneducated, the quality of labour remains low; the transaction cost remains high in every domain of economic activities of the society. Of late, the government of India has taken up a programme for Sarva Shiksha Aviyan (SSA), one of the components of which is to bring a larger number of children under the coverage of formal schools.

In 2007-08, there were 1432757 students enrolled at primary and upper primary level in North 24 Parganas. 523298 were enrolled in urban North 24 Parganas. In rural part of the district the enrolment was at the level of 909459. Although the distribution of population in the district is tilted in favour of its urban part, the enrolment data do not reflect that more students are there in the urban segment of the district. This is largely due to the fact that more students in urban North 24 Parganas opt for private schools and the availability of enrolment data from the private schools is rather poor. The available data indicate that only 36.52 percent of the students enrolled in 2007-08 belonged to urban North 24 Parganas. This does not appear to be true. There is serious underreporting with respect to the urban data. For example, there are 6 big municipalities¹ including Bidhannagar Municipality in which the enrolment data pertaining to private schools were not available. Data problem notwithstanding, the information reported in Table 7.3.1 does reflect the fact that the importance of private institutions is much higher in urban segment of the district. The other important point that one should report is the fact that the importance of Madrasah system of education is very low in urban North 24 Parganas.

Table 7.3.1: Enrolment in Primary and Upper Primary Schools in North 24 Parganas, 2007-08

	Enrolment Primary (2007-2008)	SSK Enrolment	Total under State Systems	Enrolment Upper Primary (2007-2008)	Madrasah Enrolment (Upper Primary)	MSK Enrolment	Enrolment Private	Total (Primary and Upper Primary)
Rural	351972	104514	456486	317911	17769	24053	93240	909459
Urban	178659	-	178659	241274	2940	-	100425	523298
Total	530631	104514	635145	559185	20709	24053	193665	1432757

Source: SSA, North 24 Parganas

The data quality with respect to rural North 24 Parganas appears to be better. As we report in Table 7.3.2, in 2007-08, there were 351972 students enrolled in DPSC run schools in rural North 24 Parganas. Enrolment under SSK was 104514. There were thus 456486 students in state sponsored primary schools of the district (excluding state sponsored Madrasahs). Total students in all the primary and upper primary schools in the district was in the order of 909459 in 2007-08. 10.25 percent of the students were in the private schools of the district². As the data indicate, total enrolment in Madrasahs of the district was only 17769 which is only 1.95 percent of total enrolment in the district. The block level data, as given in Table 7.3.2 depicts that the highest number of students in primary and upper primary was in Bongaon. The next was Barasat I. Gaighata was the third largest block in terms of total enrolment in primary and upper primary schools. The lowest enrolment, as found from SSA data was in Barrackpur I where the number of students in primary and upper primary schools was only 19286.

¹ The other municipalities are Baranagar, Barrackpore, Dum Dum, Kamarhati and Madhyamgram.

² This excludes Deganga where the enrolment under private system of education was not available.

Table 7.3.2: Enrolment in Primary and Upper Primary Schools in Rural North 24 Parganas, 2007-08

Name of the Block	Enrolment in DPSC Primary	SSK Enrolment	Total Primary under State System	Enrolment Upper Primary (State)	Madrasah Enrolment (Upper Primary)	MSK Enrolment	Enrolment Private**	Total (Primary & Upper Primary)	Enrolment per Household
Amdanga	17051	2058	19109	13483	3374	1328	1621	38915	0.86
Baduria	23044	5631	28675	17703	455	1231	3505	51569	0.84
Bagdah	16565	4829	21394	19669	211	513	3494	45281	0.91
Barasat - I	17332	4360	21692	15051	2343	2456	15747	57289	1.07
Barasat - II	14920	4445	19365	12834	623	2019	10072	44913	0.90
Barrackpore - I	7958	3300	11258	6504	0	452	1072	19286	0.64
Barrackpore - II	6306	4672	10978	7928	785	721	2936	23348	0.54
Basirhat - I	13059	5637	18696	9340	678	963	4611	34288	0.83
Basirhat - II	15865	5183	21048	14054	664	243	4810	40819	0.98
Bongaon	26998	3741	30739	27407	0	1348	1857	61351	0.64
Deganga	22024	7798	29822	19646	1975	3170	NA	54613	1.02
Gaighata	19366	4565	23931	24168	0	554	6190	54843	0.67
Habra - I	12926	7343	20269	15262	0	NA	2317	37848	0.75
Habra - II	11084	3166	14250	12631	1740	634	3606	32861	0.93
Haroa	19260	6020	25280	12668	0	2444	6031	46423	1.10
Hasnabad	16809	5618	22427	12509	1236	1360	2015	39547	0.96
Hingalganj	12784	3970	16754	12605	0	586	3436	33381	0.82
Minakhan	19433	3575	23008	13139	1549	1733	10773	50202	1.38
Rajarhat	12518	2404	14922	12295	1217	384	2848	31666	0.97
Sandeshkhali - I	15020	6008	21028	10941	302	945	2804	36020	1.09
Sandeshkhali - II	12778	4831	17609	10254	0	577	2013	30453	0.95
Swarupnagar	18872	5360	24232	17820	617	392	1482	44543	0.77
Rural	351972	104514	456486	317911	17769	24053	93240	909459	0.87

* DPSC schools, ** Primary & Upper Primary

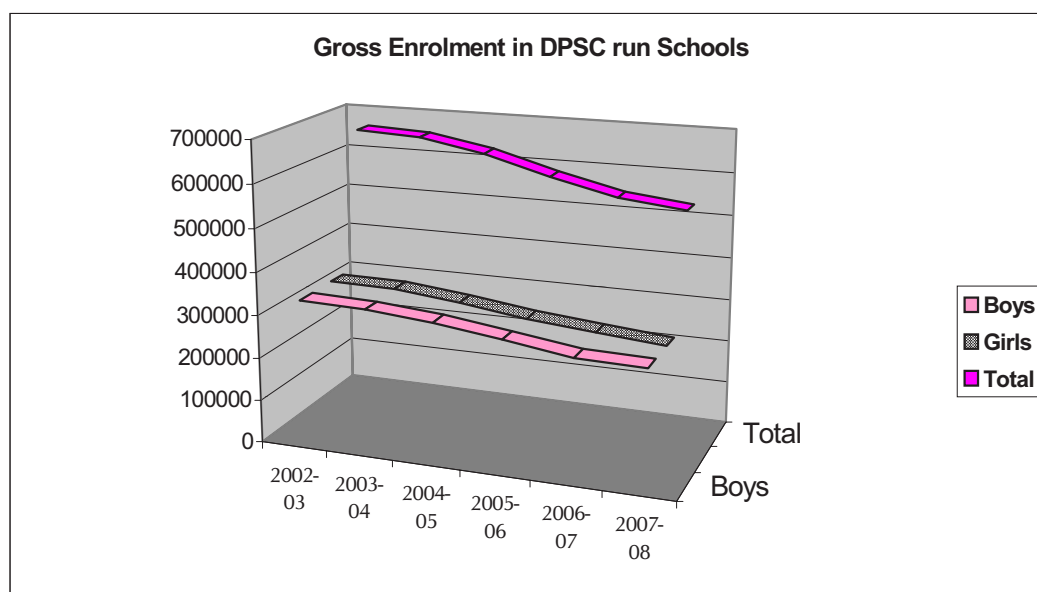
Source: SSA, North 24 Parganas

The enrolment situation in the blocks of the district is better captured in terms of enrolment per household. This is described in the last column of Table 7.3.2. It appears that Minakhan is the best block in terms of enrolment per household. The worst is the situation in Barrackpore II where enrolment per household is 0.54. The data also indicate that enrolment scenario is better in so called backward blocks of the district. In terms of enrolment per household Minakhan is followed by Sandeshkhali I and Haroa. The scenario is in fact not very promising in Bongaon and Gaighata blocks.

There are 17769 students enrolled under madrasah system in rural North 24 Parganas. The number of enrolled students is highest in Amdanga which is followed by Barasat I. In Deganga also, about 2000 students have been enrolled under madrasah system. However, there are 7 blocks in which there are no enrolment under Madrasah system. SSKs account for 104514 students at the primary level in rural North 24 Parganas. As the data indicate, the share of SSK in the set of primary students enrolled under state system is as high as 22.9 percent. The share of MSK in enrolment under state run schools, on the other hand is only 6.68 percent.

Analysing the data, we find it necessary to point that gross enrolment in DPSC run primary schools in North 24 Parganas is declining, almost monotonically over time during recent years. Gross enrolment in the DPSC run schools in 2002-03 was 660762. By 2007-08, it has declined to 530631. As Figures 7.3.1 (A, B and C) indicate the decline was monotonic both in rural and urban segments of the district. It is also observed that the trend was the same with respect to both the boys and the girls. The primary reason, as cited by the experts is that the parents nowadays are opting for private education for their children as and when they can afford to spend for a more expensive (and perceived as better) system of elementary education. We should however, point out that the birth rate in the district is also declining as a result of which the number of persons in 0-6 age group is now decreasing³. Consequently, the pressure on the existing system is not mounting up at a very high rate, at least at the level of elementary education.

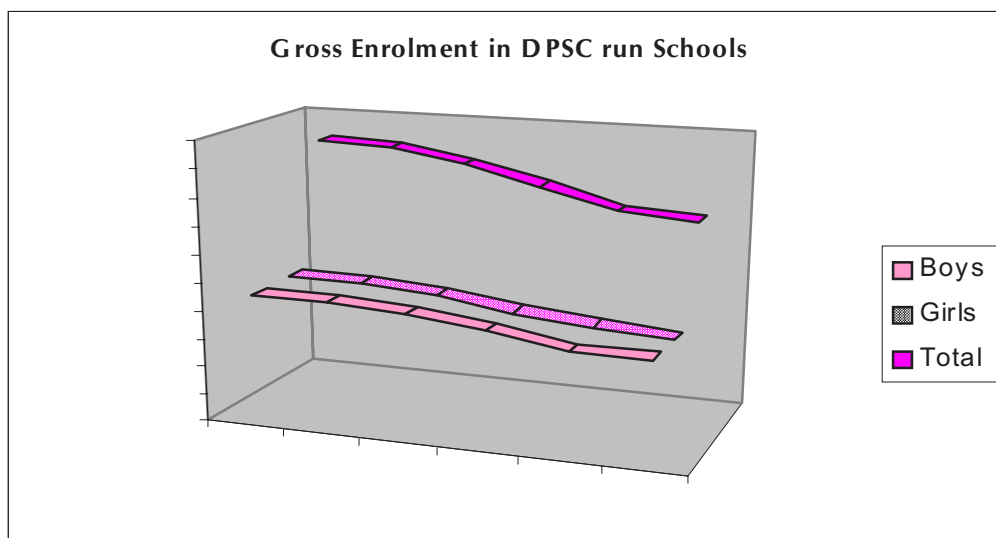
Figure 7.3.1A: Gross Enrolment in DPSC run Schools in the District



Source: DISE, 2006-07

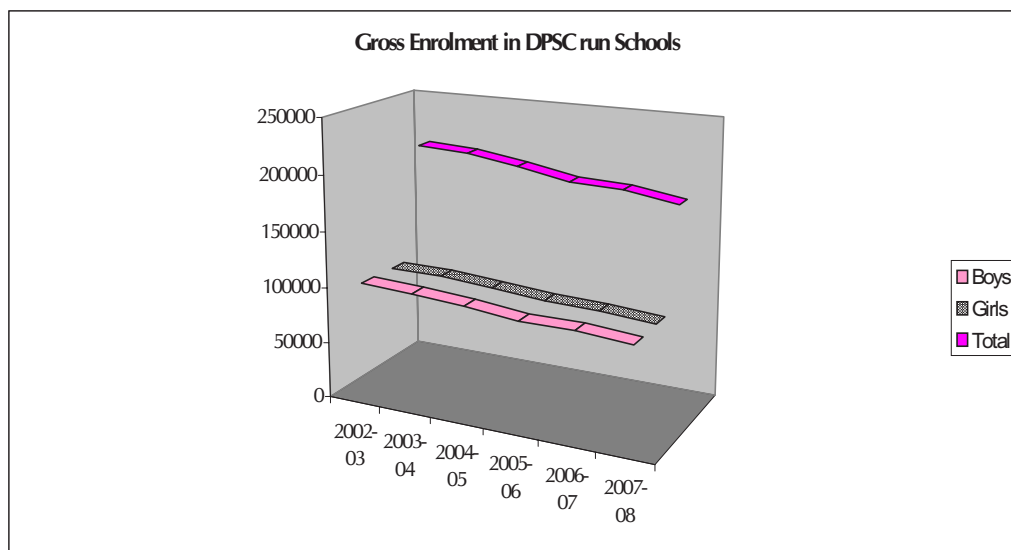
³ The percentage of child population in the 0-6 age group has declined in 24 Parganas (N) from 15.13 percent of the total population in 1991 to 11.44 percent in 2001. In case of rural areas of the district it has decreased to 14.39 percent in 2001 from 19.15 percent in 1991, while in case of urban areas it has declined from 11.30 to 8.95. (*Census 2001, Series 20, West Bengal, Provisional Population Totals, pp-120.*)

Figure 7.3.1B: Gross Enrolment in DPSC run Schools in Rural 24 Parganas



Source: DISE, 2006-07

Figure 7.3.1C: Gross Enrolment in DPSC run Schools in Urban 24 Parganas



Source: DISE, 2006-07

Reach Out, Retention and Drop Out Rates: Results of a Sample Survey

SSA targeted a hundred percent reach out in both urban and rural segments of the district particularly, for the children in school going age. In the absence of proper information, it is difficult to make a rigorous statement on the extent of success that SSA has achieved in this district with respect to universalisation of education. There are however, a few sectional studies on this issue the findings of which might throw some light on this problem. We shall report the findings of these studies in this section.

The baseline study conducted by ORG-MARG collected the relevant data with respect to the status of school education in villages and urban UFS blocks covered in the sample. The findings are been reported in this section of the Chapter.

Table 7.3.3 shows the schooling status of children between 6-14 years in the surveyed households of rural and urban parts of the district. There were total 550 children in SA. (Sunderban Area)

Table 7.3.3: Status of School Attendance in North 24 Parganas

	Rural						Urban			
	Sundarban Area		Border Area		Other Rural area		Non slum area		Slum area	
	N	%	N	%	N	%	N	%	N	%
Currently studying	449	81.6	394	84.5	349	82.3	249	85.8	297	79.2
Never enrolled	34	6.1	21	4.5	11	2.5	5	1.7	21	5.6
Dropped out from school	36	6.5	21	4.5	22	5.1	13	4.4	15	4
Children above 14 years	31	5.6	30	6.4	42	9.9	23	7.9	42	11.2
Total	550	100	466	100	424	100	290	100	375	100

Source: Base Line Survey 2008, ORG MARG
(N-Number)

31 of these children were above 14 years. Thus, out of 519 children in the relevant age group, 449 (86.51 percent) were currently studying in schools. Among the remaining 70 children 34 children were never enrolled to any schools and 36 children dropped out from school. The drop-out rate in this cohort is thus 6.94 percent. The percentage of never enrolled and dropped out from school taken together had been 13.49 which is alarmingly high. The situation of school going children was somewhat better in BA. The percentage of currently school attending children was 90.37 in BA, which was higher than that in SA. Again the number of students that were never enrolled to school as well as those who dropped out from school was less in BA. In ORA the percentage of students in the relevant age group that were currently attending schools was 91.36. The percentage of children that were never enrolled in schools was 2.88 there, but the drop out rate was high (5.76 percent). In the urban non- slum UFS blocks, the percentage of children in the relevant age group that were currently attending schools was as high as 93.26. Among the remaining students in the relevant age group only 5 students (1.87 percent) were never enrolled to any schools. In the slum urban UFS blocks, on the other hand, the percentage of students currently attending schools in the relevant age group was 89.19. The drop-out rate was quite high (4.5 percent). The percentage of never enrolled and dropped out from school taken together was 10.81 (Table 7.3.3).

In the baseline study, there were 1937 children in 6-14 year age group. As the data indicate, the overall drop-out rate was 5.52 percent (with wide regional variation). What had been the reason for drop out? The households were asked this question. The most cited reason for school dropouts in rural area and urban slum UFS blocks however, was that the households "can not afford to send all children to school". Out of 107 cases of drop out, as high as 47 cases were due to the problem of affordability, according to the adults

Table 7.3.4: Reasons for Drop out from Schools

Reasons of Drop out	Rural			Urban		Total
	Riverine Area	Border Area	Other Rural Area	Non-slum Area	Slum Area	
	N	N	N	N	N	
Too young to go to school	0	0	0	4	0	4
School located in a different hamlet/far away	2	0	0	0	0	2
Cannot afford to send all Children	16	11	8	4	8	47
Education is not necessary for girls	1	0	1	5	1	8
Child not interested in going to school	5	3	7	0	2	17
Child is engaged in domestic chores	7	1	0	0	1	9
Child has to supplement Household income	1	0	2	0	0	3
Illness of child	0	2	1	0	0	3
Learning is uninteresting for the child	3	0	2	0	2	7
Any Other	1	2	1	0	0	4
Cannot Say	0	2	0	0	1	3
Total	36	21	22	13	15	107
Total *Children Surveyed	519	436	382	267	333	1937

* Excluding children over 14 years

N – Number

Source: Base Line Survey 2008, ORG MARG

of the visited households. Admittedly, primary education is free; but then, as the households mention, there are auxiliary expenses not supported by the school that are quite high and they cannot afford to meet these expenses for all the children. The problem of affordability was highest in SA (34.04 percent), which is a backward region. Again drop out due to un-affordability of households to bear the cost of schooling was second highest in BA (23.40 percent) among all other regions. In ORA and urban UFS blocks this problem of un-affordability was less severe. The second most important reason for dropouts was "children not interested to go to school". This has been the second most important reason for dropout in ORA. In non-slum urban UFS blocks no dropout occurred due to this reason. In SA, 5 out of 36 dropped out

children discontinued, as they were not interested to go to school. A very common reason for dropout from schools especially for girls had been engagement of the children in domestic chores. This had been the third important reason for dropout, according to baseline survey. This was very alarmingly high in SA where 7 out of 36 dropped out children discontinued due to this reason. However, this reason was not responsible for any dropout in ORA and non-slum urban UFS block. The most cited reason for non-slum UFS block, was "Education is not necessary for girls". This was a very old orthodox belief, which happened to be a major reason for dropout in this part of urban area of the district. 5 out of 13 girls in non-slum UFS block dropped out as their family decided that education was not necessary for them. There were 7 (3 in SA, 2 in ORA and 2 in slum UFS blocks) out of 107 cases in which the children dropped out, as learning was uninteresting for them. Retaining the children appears to be a major challenge for the school education in the district, according to the baseline survey.

The baseline study covered only 2600 sampled households in which there were 1937 children in 6-14 age group. This was not a cohort specific study and therefore the findings might not be representative in nature. SSA, North 24 Parganas conducted a study covering all the students who were admitted in class-V in the year of 2002-03 in all the 22 Blocks, 1 Cantonment Board & 27 Municipalities of North 24 Parganas. A total of 124082 students were covered in this study. The Study revealed that 42.74 percent of these students completed Upper Primary education in four years. 27.20 percent of the students in this cohort were repeaters and therefore they were not dropped out from the school education system. It was further observed that 4.1 percent migrated from the schools. The residual dropped out from schools. The drop out rate was thus 25.95 percent. The Completion Rate at Four years (CRF) was low and the dropout rate was quite high. In 2006-07, the schools in North 24 Parganas could retain only 69.94 percent of the children who were enrolled in class V in 2002-03. No significant gender variation in dropout was observed in this cohort. Among 61148 boys enrolled in 2002-03, 16155 dropped out by 2006-07. The percentage works out as 26.42. Among the girls, the percentage dropped out was 25.51.

Retention and Drop Out Rates: Results of a Sample Survey

A broader study on retention and dropout rates was performed by SSA, North 24 Parganas. We shall now report the findings of this study. The study was based on cohort method involving all Primary schools established before 2004-05 or at least in 2004-05 in the jurisdiction of 22 Blocks & 28 Municipalities which are covering altogether 57 educational Circles of North 24 Parganas. It has covered all class I children of the district admitted in the academic year 2004-05. Change of status of the admitted students in class I has been recorded for a consecutive period of five years in a specific data capturing format. Thus the status of every child has been recorded in terms of promotion to the next grade/class, drop out, repetition and transfer to other school. A student who had dropped out in a particular year or transferred or had left that school with a transfer certificate was not tracked any further and was thus excluded from the study. To grasp the phenomenon of repetition (i.e. existence of a student in the same class for at least one or more consecutive years) & completion of primary education for those who took an additional year due to repeating in the same grade, effort was made to record the progress of such cases up to the fifth year.

The cohort consisted of all the students of class I, it was not a sample based study. The schools were instructed to submit the cohort specific report to DISE (District Information System of Education) in a specific format. There were 3162 primary schools under 56 circles came under the purview of this study. (It is to be noted that instead of the existing 57 circles, the study had 56 circles as Barasat West circle was contained in Barasat circle as the software supplied by the State Project Office was developed in that fashion. There were 160015 students to start with. However, complete information was available with respect to 157279 students.

Table 7.3.5: Basic Information With Respect to the Cohort

Sl. No.	Block/ Municipality	No. of Schools covered	No. of Students covered	% of Schools covered
1	Amdanga	80	3911	97.56
2	Ashokenagar-Kalyangarh.(M)	63	1222	98.44
3	Baduria	181	6888	99.45
4	Baduria(M)	39	1155	92.86
5	Bagdah	131	9765	100.00
6	Baranagar(M)	54	2366	100.00
7	Barasat- I	92	5292	98.92
8	Barasat- II	85	4675	100.00
9	Barasat(M)	62	2633	96.88
10	Barrackpore- I	64	5560	96.97
11	Barrackpore- II	33	1316	91.67
12	Barrackpore Cantonment Board	9	209	100.00
13	Barrackpore(M)	38	1128	100.00
14	Basirhat- I	88	3192	98.88
15	Basirhat- II	119	6793	97.54
16	Basirhat(M)	55	1695	98.21
17	Bhatpara(M)	133	5694	100.00
18	Bidhannagar(M)	18	754	94.74
19	Bongaon	185	5998	97.88
20	Bongaon(M)	36	1424	100.00
21	Deganga	167	8056	100.00
22	Dum Dum(M)	23	739	100.00
23	Gaighata	160	10825	98.77
24	Garulia(M)	19	521	100.00
25	Gobardanga(M)	26	510	100.00
26	Habra- I	93	3518	100.00
27	Habra- II	75	2576	100.00
28	Habra(M)	45	2202	100.00
29	Halisahar(M)	52	1629	100.00
30	Haroa	78	3736	90.70

Table 7.3.5: Contd.

Sl. No.	Block/ Municipality	No. of Schools covered	No. of Students covered	% of Schools covered
31	Hasnabad	117	4270	99.15
32	Hingaljanj	126	3001	99.21
33	Kamarhati(M)	68	2605	97.14
34	Kanchrapara(M)	46	1150	100.00
35	Khardah(M)	13	770	100.00
36	Madhyamgram(M)	27	4725	100.00
37	Minakhan	82	4974	100.00
38	Naihati(M)	59	2244	93.65
39	New Barrackpore(M)	29	1075	100.00
40	North Barrackpore(M)	41	964	97.62
41	North Dum Dum(M)	57	1826	95.00
42	Panihati(M)	81	3776	100.00
43	Rajarhat	59	2519	98.33
44	Rajarhat Gopalpur (M)	31	1870	100.00
45	Sandeshkhali- I	82	3897	94.25
46	Sandeshkhali- II	90	2927	100.00
47	South Dum Dum(M)	66	2104	97.06
48	Swarupnagar	138	4426	95.83
49	Taki(M)	22	622	95.65
50	Titagarh (M)	36	1552	100.00
District Total		3573	157279	98.29

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

As Table 7.3.5 indicates, 98.29 percent of the admitted students were covered in this study. In some of the rural blocks the cohort covered 100 percent of the students admitted in class I in 2004-05. There were however, blocks like Haroa in which the study covered 90.7 percent of the students. In many of the municipalities, all the students admitted in class I in 2004-05 were included in the study however, here also there were exceptions. For example, in Naihati municipality the coverage was 92.65 percent of the admitted students. In Baduria municipality, the relevant percentage was 92.86. There was no gender tilt in the coverage in many of the blocks and municipalities. In fact, in aggregate, the percentage of boys in the cohort was 49.89 which indicate that the cohort had a marginal tilt in favour of the girls. As Table 7.3.6 indicates the tilt in favour of the girls was quite high in municipalities like Baranagar and Barrackpore. However, a reverse scenario is also observed in some other municipalities. We should also mention that the gender tilt was not high in any of the rural blocks in the district.

Table 7.3.6: Gender wise Distribution of the Students

Sl.	Block/ Municipality	Boys	Girl	Sl.	Block/ Municipality	Boys	Girl
1	Amdanga	50.47	49.53	26	Habra- I	49.77	50.23
2	Ashokenagar-Kalyangarh (M)	50.33	49.67	27	Habra- II	47.32	52.68
3	Baduria	50.25	49.75	28	Habra(M)	50.86	49.14
4	Baduria(M)	48.92	51.08	29	Halisahar(M)	50.89	49.11
5	Bagdah	48.88	51.12	30	Haroa	50.54	49.46
6	Baranagar(M)	44.13	55.87	31	Hasnabad	50.73	49.27
7	Barasat- I	52.02	47.98	32	Hingalganj	51.68	48.32
8	Barasat- II	45.73	54.27	33	Kamarhati(M)	51.09	48.91
9	Barasat(M)	50.36	49.64	34	Kanchrapara(M)	50.78	49.22
10	Barrackpore- I	51.29	48.71	35	Khardah(M)	55.32	44.68
11	Barrackpore- II	51.44	48.56	37	Minakhan	51.77	48.23
12	Barrackpore Cantonment Board	59.33	40.67	38	Naihati(M)	50.31	49.69
13	Barrackpore(M)	42.55	57.45	39	New Barrackpore(M)	52.19	47.81
14	Basirhat- I	51.85	48.15	40	North Barrackpore(M)	49.07	50.93
15	Basirhat- II	50.99	49.01	41	North Dum Dum(M)	51.53	48.47
16	Basirhat(M)	51.15	48.85	42	Panihati(M)	48.49	51.51
17	Bhatpara(M)	46.89	53.11	43	Rajarhat	48.95	51.05
18	Bidhannagar(M)	53.18	46.82	44	Rajarhat Gopalpur (M)	51.18	48.82
19	Bongaon	51.77	48.23	45	Sandeshkhali- I	50.09	49.91
20	Bongaon(M)	56.04	43.96	46	Sandeshkhali- II	51.79	48.21
21	Deganga	47.77	52.23	47	South Dum Dum(M)	48.76	51.24
22	Dum Dum(M)	50.20	49.80	48	Swarupnagar	50.70	49.30
23	Gaighata	49.93	50.07	49	Taki(M)	48.87	51.13
24	Garulia(M)	50.67	49.33	50	Titagarh (M)	51.93	48.07
25	Gobardanga(M)	47.06	52.94	DISTRICT TOTAL		49.89	50.11

Table 7.3.7: Age Specific Distribution of the Students Admitted in Class I in 2004-05

Sl	Block/ Municipality	5 Yr.	6 Yr.	7 Yr.	8 & Above	Sl	Block/ Municipality	5 Yr.	6 Yr.	7 Yr.	8 & Above
1	Amdanga	47.46	40.35	9.79	2.40	27	Habra- II	47.17	40.57	9.16	3.11
2	Ashokenagar-Kalyangarh (M)	51.80	36.25	9.25	2.70	28	Habra(M)	48.50	38.47	9.49	3.54
3	Baduria	35.64	45.27	14.30	4.79	29	Halisahar(M)	49.72	37.75	8.84	3.68
4	Baduria(M)	43.98	39.57	10.91	5.54	30	Haroa	34.69	39.86	21.71	3.75
5	Bagdah	15.93	32.61	12.84	38.62	31	Hasnabad	31.19	43.07	17.61	8.13
6	Baranagar(M)	23.20	54.82	13.74	8.24	32	Hingalganj	25.69	46.55	18.26	9.50
7	Basirhat- I	38.17	43.22	13.61	5.01	33	Kamarhati(M)	39.65	41.27	11.09	7.98
8	Basirhat- II	27.70	53.60	9.60	9.09	34	Kanchrapara(M)	47.39	37.91	10.35	4.35
9	Barasat(M)	24.00	47.82	19.37	8.81	35	Khardah(M)	40.91	44.03	10.39	4.68
10	Barrackpore- I	42.32	41.06	11.94	4.68	36	Madhyamgram(M)	0.17	79.56	0.15	20.13
11	Barrackpore- II	37.69	46.88	11.93	3.50	37	Minakhan	36.11	41.58	16.34	5.97
12	Barrackpore Cantonment Board	52.63	32.06	11.48	3.83	38	Naihati(M)	37.61	49.02	9.09	4.28
13	Barrackpore(M)	30.32	49.73	16.40	3.55	39	New Barrackpore(M)	21.02	60.74	6.23	12.00
14	Basirhat- I	36.75	52.32	8.99	1.94	40	North Barrackpore(M)	59.34	34.65	4.98	1.04
15	Basirhat- II	36.48	45.05	13.22	5.26	41	North Dum Dum(M)	36.36	45.24	10.57	7.83
16	Basirhat(M)	32.09	48.32	14.45	5.13	42	Panihati(M)	46.24	42.40	4.26	7.10
17	Bhatpara(M)	34.53	46.29	9.13	10.05	43	Rajarhat	34.78	51.01	11.63	2.58
18	Bidhannagar(M)	26.39	53.32	17.37	2.92	44	Rajarhat Gopalpur(M)	20.59	53.53	15.45	10.43
19	Bongaon	44.31	40.91	11.10	3.67	45	Sandeshkhali- I	31.23	42.67	13.27	12.83
20	Bongaon(M)	41.15	47.54	5.83	5.48	46	Sandeshkhali- II	34.06	44.86	12.85	8.23
21	Deganga	31.47	47.74	16.24	4.56	47	South Dum Dum(M)	52.66	35.93	8.03	3.37
22	Dum Dum(M)	24.36	53.86	12.04	9.74	48	Swarupnagar	35.25	41.89	16.11	6.76
23	Gaighata	18.12	27.30	8.86	45.72	49	Taki(M)	48.23	34.89	14.31	2.57
24	Garulia(M)	62.96	25.53	8.64	2.88	50	Titagarh (M)	45.43	44.72	8.25	1.61
25	Gobardanga(M)	42.75	41.57	13.53	2.16		DISTRICT TOTAL	33.43	43.57	12.01	11.00
26	Habra- I	44.09	39.97	12.31	3.64						

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

The modal age of admission in the district is 6 years. 43.57 percent of the students in the cohort were admitted in class I at the age of 6 years. There is however area specific variation in the age of admission. In South Dum Dum municipality for example, 52.66 percent of the students were admitted in class I at the age of 5 years. In Rajarhat Gopalpur municipality on the other hand, only 34.78 percent of the students were admitted in class I at the age of 5 years. 12.01 percent of the students were admitted in class I at the age of 7 years and 11 percent of the students in the cohort were inducted in class I at the age of 8 years and a bank. In Swarupnagar, 16.11 percent of the students got admitted in class I at the age of 7 years. In

Sandeshkhali I 12.83 percent of the students entered class I at the age of 8 years. Getting admitted to class I at a higher age is not thus an uncommon phenomenon in the district. In this context one should mention the scenario in Gaighata block. As one gets from Table 7.3.7, in 2004-05, 45.72 percent of the admissions in class I in Gaighata block took place at the age of 8 years and above. In Bagdah block which is adjacent to Gaighata, 38.62 percent of admission occurred at the age of 8 years. The other surprising phenomenon is that in Madhyamgram municipality there was almost no admission at the age of 5 years. 79.56 percent of admission took place at the age 6 years which in fact is considered as the most suitable age for admission in primary school.

Table 7.3.8: Gender wise Completion Rate at Four Years (CRF)

Sl	Block/ Municipality	Boy	Girl	Total	Sl	Block/ Municipality	Boy	Girl	Total
1	Amdanga	33.74	39.29	36.49	27	Habra- II	53.32	56.96	55.24
2	Ashoknagar- Kalyangarh (M)	56.75	57.17	56.96	28	Habra(M)	64.20	65.06	64.62
3	Baduria	57.67	54.42	56.05	29	Halisahar(M)	55.85	58.88	57.34
4	Baduria(M)	58.23	60.17	59.22	30	Haroa	68.27	66.72	67.51
5	Bagdah	54.91	55.51	55.22	31	Hasnabad	52.82	58.65	55.69
6	Baranagar(M)	51.82	63.16	58.16	32	Hingalganj	50.93	52.41	51.65
7	Barasat- I	51.91	61.52	56.52	33	Kamarhati(M)	49.14	51.96	50.52
8	Barasat- II	48.22	49.11	48.71	34	Kanchrapara(M)	66.10	67.49	66.78
9	Barasat(M)	58.22	62.59	60.39	35	Khardah(M)	56.57	55.81	56.23
10	Barrackpore-I	61.12	66.06	63.53	36	Madhyamgram(M)	33.09	33.03	33.06
11	Barrackpore-II	53.91	55.71	54.79	37	Minakhan	59.69	62.07	60.84
12	Barrackpore Cantonment Board	45.97	62.35	52.63	38	Naihati(M)	47.39	50.13	48.75
13	Barrackpore(M)	52.92	65.90	60.37	39	New Barrackpore(M)	51.34	46.30	48.93
14	Basirhat- I	69.00	77.81	73.25	40	North Barrackpore(M)	70.40	70.88	70.64
15	Basirhat- II	60.65	68.22	64.36	41	North Dum Dum(M)	68.54	74.01	71.19
16	Basirhat(M)	44.29	48.07	46.14	42	Panihati(M)	49.15	40.67	44.78
17	Bhatpara(M)	49.59	57.51	53.79	43	Rajarhat	68.53	72.71	70.66
18	Bidhannagar(M)	55.86	52.12	54.11	44	Rajarhat Gopalpur(M)	49.95	50.49	50.21
19	Bongaon	59.71	64.05	61.80	45	Sandeshkhali- I	50.05	51.52	50.78
20	Bongaon(M)	50.50	54.95	52.46	46	Sandeshkhali- II	54.09	51.31	52.75
21	Deganga	64.29	66.11	65.24	47	South Dum Dum(M)	66.18	65.21	65.68
22	Dum Dum(M)	95.42	94.02	94.72	48	Swarupnagar	57.98	63.84	60.87
23	Gaighata	50.55	51.68	51.11	49	Taki(M)	61.84	55.97	58.84
24	Garulia(M)	74.24	77.82	76.01	50	Titagarh (M)	64.27	70.11	67.07
25	Gobardanga(M)	59.58	54.81	57.06		DISTRICT TOTAL	55.77	58.32	57.05
26	Habra- I	67.33	71.42	69.39					

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

We shall now report the completion rate at 4 years with respect to this cohort (Table 7.3.8). In the district the completion rate at 4 years i.e. successively getting promoted to the next class and finishing the schooling at class IV within 4 years is 57.055 percent. The success rate is marginally lower for the boys (58.32 among the girl students and 55.77 among the boys). There are some municipalities such as Dum Dum (95.42 percent for boys and 94.02 for girls), Garulia and North Barrackpore where the completion rate at 4 years is much higher than the district average. In many rural blocks, the scenario is better than the district average. However, there are exceptions For example, in Amdanga, the completion rate at 4 years (CRF) is only 33.74 for the boys and 39.29 for the girls. Again, in Madhyamgram municipality where 79.56 percent of the admissions took place at age appropriate level, the CRF was as low as 33.09 for boys, 33.3 for girls and 33.6 for the entire cohort. The gender wise variation in CRF does not appear to be noticeable in any of the blocks and municipalities of the district.

Due to different reasons students often move from one school to another. In the present cohort the incidence of migration was found to be 6.55 percent. The information furnished in Table 7.3.9 reveal that the migration rate is as high as 31.8 percent in Basirhat and 22.91 percent in Naihati municipality. The incidence of migration is rather low in Dum Dum (0.95 percent) and Kanchrapara (1.39 percent). In Khardaha municipality the rate of migration is also very low (1.95 percent). In the rural blocks of the district the incidence of migration was found to be quite low in Baduria and Bagdah. In the remote blocks of the district, the migration rates are marginally above the district average. Thus in Sandeshkhali I the migration rate is 8.88, in Hingalganj, the relevant rate is 7.33.

Table 7.3.9: Class wise Migration Rates

Sl	Block/ Municipality	Class-I	Class-II	Class-II	Class-IV	Total
1	Amdanga	2.38	1.28	1.15	7.75	12.55
2	Ashoknagar- Kalyangarh.(M)	8.59	3.19	2.37	0.33	14.48
3	Baduria	1.45	1.28	0.94	0.41	4.08
4	Baduria(M)	2.68	1.39	1.13	0.17	5.37
5	Bagdah	1.51	0.94	0.83	0.29	3.56
6	Baranagar(M)	9.89	1.52	1.52	0.21	13.14
7	Barasat- I	2.51	1.93	1.06	0.09	5.59
8	Barasat- II	2.70	2.07	0.90	0.26	5.93
9	Barasat(M)	8.85	2.35	2.13	0.53	13.86
10	Barrackpore- I	3.42	3.04	1.35	3.20	11.01
11	Barrackpore- II	6.69	2.13	0.76	0.38	9.95
12	Barackpore Cantonment Board	2.39	2.39	1.91	1.44	8.13
13	Barrackpore(M)	6.29	3.81	1.51	0.00	11.61
14	Basirhat- I	0.75	0.78	0.72	0.06	2.32
15	Basirhat- II	1.41	1.24	1.30	0.21	4.15
16	Basirhat(M)	1.77	1.12	0.24	28.67	31.80
17	Bhatpara(M)	2.02	1.23	1.18	0.18	4.60
18	Bidhannagar(M)	5.04	2.79	1.06	0.27	9.15

Table 7.3.9 ... Contd.

Sl	Block/ Municipality	Class-I	Class-II	Class-II	Class-IV	Total
19	Bongaon	2.33	1.88	1.18	0.18	5.59
20	Bongaon(M)	5.34	1.76	1.19	0.07	8.36
21	Deganga	0.96	0.88	0.71	0.04	2.58
22	Dum Dum(M)	0.27	0.27	0.00	0.41	0.95
23	Gaighata	1.57	1.45	0.88	0.28	4.18
24	Garulia(M)	1.73	1.15	1.92	0.00	4.80
25	Gobardanga(M)	2.35	2.16	0.59	0.00	5.10
26	Habra- I	2.81	2.22	0.91	0.11	6.05
27	Habra- II	1.63	1.44	1.40	0.58	5.05
28	Habra(M)	1.63	1.86	0.86	0.05	4.41
29	Halisahar(M)	7.00	3.07	2.21	0.31	12.58
30	Haroa	2.14	0.78	1.74	0.32	4.98
31	Hasnabad	2.44	1.48	0.59	0.21	4.71
32	Hingaljanj	3.43	2.13	1.60	0.17	7.33
33	Kamarhati(M)	6.45	2.23	1.57	0.96	11.21
34	Kanchrapara(M)	0.70	0.26	0.35	0.09	1.39
35	Khardah(M)	1.04	0.65	0.26	0.00	1.95
36	Madhyamgram(M)	0.68	0.76	0.61	0.32	2.37
37	Minakhan	1.93	0.74	1.35	2.03	6.05
38	Naihati(M)	11.90	6.82	4.01	0.18	22.91
39	New Barrackpore(M)	3.07	1.86	2.23	0.74	7.91
40	North Barrackpore(M)	3.63	2.59	1.66	0.10	7.99
41	North Dum Dum(M)	4.55	4.00	1.31	0.16	10.02
42	Panihati(M)	6.22	2.04	1.17	0.05	9.48
43	Rajarhat	4.13	1.63	0.56	0.00	6.31
44	Rajarhat Gopalpur(M)	0.96	1.02	1.12	0.11	3.21
45	Sandeshkhali- I	3.54	2.08	1.33	1.92	8.88
46	Sandeshkhali- II	1.78	2.08	1.67	0.85	6.39
47	South Dum Dum(M)	1.71	1.43	1.28	0.19	4.61
48	Swarupnagar	2.80	1.67	0.81	0.16	5.45
49	Taki(M)	1.29	0.48	0.96	0.00	2.73
50	Titagarh (M)	4.38	1.22	0.52	0.13	6.25
DISTRICT TOTAL		2.82	1.66	1.14	0.94	6.55

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

In a previous study, it was reported that in 1990s the drop out rates were very high in West Bengal. The drop out rates were as high as 58.72 percent and 63.77 percent respectively at Primary and Upper Primary level of education with a gender difference of 16.91 percent and 6.72 percent (Universalisation of Upper Primary education in India: An analysis of present status and future requirements: N.V. Varghese & Arun C. Mehata, May 1998, NIEPA). The scenario has changed significantly in recent years at least in North 24 Parganas. The Cohort drop out rate at Primary level, as reported in Table 7.3.10 is considerably low. The overall dropout rate is 14.05. The highest percentage of drop out is found to be recorded as class I level. At the higher classes the drop out rate appears to decline quite fast. Among 14.05 percent students who dropped out during last 4 years, 6.35 percent left schools at class I, 4.32 percent at class II and 2.71 percent of the students in this cohort were missing the school at class III. The drop out rate at class IV was only 0.67 percent. In a small sample survey, it was observed that in the surveyed households there were 1934 children in 6-14 year age group and 5.52 percent of these children were school drop outs. In more scientific (Cohort based) study covering all the primary schools under SSA, the school drop out rate at the primary level is found to be 14.05. One should trace the missing children of the cohort before arriving at a firm conclusion.

Table 7.3.10: Class wise Drop Out Rate in the Cohort

Sl	Block/ Municipality	Class-I	Class-II	Class-III	Class-IV	Total
1	Amdanga	1.23	1.59	1.23	5.24	9.28
2	Ashoknagar- Kalyangarh.(M)	1.64	0.90	0.74	0.00	3.27
3	Baduria	4.95	3.15	2.19	0.41	10.70
4	Baduria(M)	4.16	3.55	3.90	1.21	12.81
5	Bagdah	7.18	5.01	3.54	1.05	16.78
6	Baranagar(M)	6.51	7.40	6.21	2.24	22.36
7	Barasat- I	5.10	5.01	1.87	0.32	12.30
8	Barasat- II	7.44	3.79	2.55	0.71	14.48
9	Barasat(M)	0.68	3.30	2.16	0.30	6.46
10	Barrackpore- I	2.75	2.05	1.33	0.18	6.31
11	Barrackpore- II	5.62	2.89	1.14	0.08	9.73
12	Barrackpore Cantonment Board	10.53	4.78	2.87	0.00	18.18
13	Barrackpore(M)	10.02	4.26	1.51	0.09	15.87
14	Basirhat- I	3.67	3.35	2.32	0.47	9.81
15	Basirhat- II	6.74	4.90	3.18	0.59	15.41
16	Basirhat(M)	10.97	5.49	1.95	0.00	18.41
17	Bhatpara(M)	7.34	6.27	3.34	0.42	17.37
18	Bidhannagar(M)	11.41	2.39	1.59	0.66	16.05
19	Bongaon	2.75	2.02	1.65	0.17	6.59
20	Bongaon(M)	8.08	4.00	2.53	0.14	14.75

Table 7.3.10: Contd.

Sl	Block/ Municipality	Class-I	Class-II	Class-III	Class-IV	Total
21	Deganga	6.43	5.05	2.77	0.43	14.68
22	Dum Dum(M)	0.54	1.08	0.54	0.41	2.57
23	Gaighata	8.78	6.14	3.42	0.77	19.10
24	Garulia(M)	7.29	3.84	4.80	0.38	16.31
25	Gobardanga(M)	4.90	2.55	1.76	0.00	9.22
26	Habra- I	3.16	2.33	1.02	0.14	6.65
27	Habra- II	5.59	5.12	2.68	0.66	14.05
28	Habra(M)	3.13	2.32	1.14	0.00	6.58
29	Halisahar(M)	5.34	2.52	1.17	0.49	9.52
30	Haroa	3.00	2.78	1.66	0.13	7.57
31	Hasnabad	9.27	4.24	2.79	0.75	17.05
32	Hingalganj	6.23	3.03	1.37	0.50	11.13
33	Kamarhati(M)	17.54	6.41	2.92	0.50	27.37
34	Kanchrapara(M)	10.78	6.43	3.30	0.43	20.96
35	Khardah(M)	12.73	6.36	1.82	0.00	20.91
36	Madhyamgram(M)	15.96	9.82	6.50	1.80	34.07
37	Minakhan	4.97	3.12	3.64	0.58	12.30
38	Naihati(M)	9.63	3.88	1.56	0.27	15.33
39	New Barrackpore(M)	10.33	4.00	5.40	1.95	21.67
40	North Barrackpore(M)	9.23	4.05	2.07	0.73	16.08
41	North Dum Dum(M)	4.93	2.52	0.77	0.27	8.49
42	Panihati(M)	6.41	7.68	4.45	1.09	19.62
43	Rajarhat	1.59	2.02	0.91	0.08	4.61
44	Rajarhat Gopalpur(M)	8.56	6.74	3.05	0.21	18.56
45	Sandeshkhali- I	4.77	4.29	3.26	0.41	12.73
46	Sandeshkhali- II	7.45	5.12	4.07	0.92	17.56
47	South Dum Dum(M)	9.03	3.04	2.85	0.10	15.02
48	Swarupnagar	3.84	2.33	1.51	0.29	7.98
49	Taki(M)	5.14	4.18	2.73	0.16	12.22
50	Titagarh (M)	4.12	5.28	5.28	0.58	15.27
DISTRICT TOTAL		6.35	4.32	2.71	0.67	14.05

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

The reason for suggesting this can now be put forward. As we go through the information contained in Table 7.3.10, we observe that the drop out rate is quite high in the municipalities of the district. Thus in Barrackpore the drop out rate at class I was 10.02 percent. In Basirhat the rate was 10.97 percent. Even in Bidhannagar 11.41 percent of the students in municipal schools found to drop out. The percentage was still higher in Kamarhati (17.54 percent) and Madhyamgram (15.96 percent). The highest and alarming drop out rate of 34.07 percent is reported in schools under Madhyamgram municipality, a municipality which is very near to Kolkata and where the percentage of admission at age appropriate level was the highest (see above). Madhyamgram is not a municipality where the literacy rate is low. It is quite unlikely that 34.07 percent of the children in the given cohort will drop out and about half of the school drop outs will leave the school at class I level. One should trace these students further before arriving at the conclusion that the drop out rate is alarmingly high in Madhyamgram. This is also true with respect to the other SSA schools in municipal areas. As we have reported private service providers are very much active in municipalities in and around Kolkata. Many of the drop outs might not have taken transfer certificates and opted for private schools (furnishing transfer certificates is optional for admission at lower primary in private schools).

This argument is further reinforced by the fact that the drop out rate is rather low in such rural areas of the district where the private service providers do not usually open their business (because a substantive percentage of households cannot buy private schooling which is costly). Thus the overall drop out rates at lower primary level in Haroa is 7.57. The percentage of BPL households in Haroa is 33.73. In Amdanga, the drop out rate is 9.28 and the percentage of BPL households in Amdanga is 33.05. In Habra I the drop out rate is 6.65; the percentage of BPL households in Habra is 34.81.

Table 7.3.11: Drop out Rate among Boys & Girls

Sl	Block/ Municipality	Boy	Girl	Total
1	Amdanga	10.59	7.95	9.28
2	Ashoknagar- Kalyangarh.(M)	5.04	1.48	3.27
3	Baduria	11.15	10.24	10.70
4	Baduria(M)	15.40	10.34	12.81
5	Bagdah	16.97	16.61	16.78
6	Baranagar(M)	27.49	18.31	22.36
7	Barasat- I	14.75	9.65	12.30
8	Barasat- II	11.27	17.19	14.48
9	Barasat(M)	6.49	6.43	6.46
10	Barrackpore- I	7.29	5.28	6.31
11	Barrackpore- II	11.23	8.14	9.73
12	Barrackpore Cantonment Board	23.39	10.59	18.18
13	Barrackpore(M)	21.25	11.88	15.87
14	Basirhat- I	12.15	7.29	9.81
15	Basirhat- II	18.04	12.68	15.41
16	Basirhat(M)	19.38	17.39	18.41
17	Bhatpara(M)	21.50	13.72	17.37

Table 7.3.11 Contd.

Sl	Block/ Municipality	Boy	Girl	Total
18	Bidhannagar(M)	15.46	16.71	16.05
19	Bongaon	7.60	5.50	6.59
20	Bongaon(M)	14.91	14.54	14.75
21	Deganga	14.89	14.50	14.68
22	Dum Dum(M)	1.35	3.80	2.57
23	Gaighata	18.96	19.24	19.10
24	Garulia(M)	18.56	14.01	16.31
25	Gobardanga(M)	9.58	8.89	9.22
26	Habra- I	7.14	6.17	6.65
27	Habra- II	13.78	14.30	14.05
28	Habra(M)	7.32	5.82	6.58
29	Halisahar(M)	9.41	9.63	9.52
30	Haroa	9.00	6.11	7.57
31	Hasnabad	20.22	13.78	17.05
32	Hingalganj	11.99	10.21	11.13
33	Kamarhati(M)	29.23	25.43	27.37
34	Kanchrapara(M)	21.23	20.67	20.96
35	Khardah(M)	20.66	21.22	20.91
36	Madhyamgram(M)	36.47	32.00	34.07
37	Minakhan	14.02	10.46	12.30
38	Naihati(M)	16.47	14.17	15.33
39	New Barrackpore(M)	20.68	22.76	21.67
40	North Barrackpore(M)	17.97	14.26	16.08
41	North Dum Dum(M)	8.71	8.25	8.49
42	Panihati(M)	18.68	20.51	19.62
43	Rajarhat	5.52	3.73	4.61
44	Rajarhat Gopalpur(M)	20.69	16.32	18.56
45	Sandeshkhali- I	12.76	12.70	12.73
46	Sandeshkhali- II	18.80	16.23	17.56
47	South Dum Dum(M)	17.06	13.08	15.02
48	Swarupnagar	8.73	7.20	7.98
49	Taki(M)	17.11	7.55	12.22
50	Titagarh (M)	17.00	13.40	15.27
DISTRICT TOTAL		15.03	13.07	14.05

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

Coming back to the cohort based study, we would further submit that the drop out rate appears to be higher among the boys. Thus the overall drop out rate among the girls in the district is 13.07 percent. The drop out rate among the boys is 15.03 percent (Table 7.3.11). Near about double or more than double rate of drop out among the boys than of the girl is found in three pockets namely Ashokenagar Kalyangarh (5.04% among boys & 1.18 among girls), Barrackpur (21.25% among boys & 11.88 among girls) & Barrackpur Cantonment Board (23.39% among boys & 10.59% among girls). Comparatively higher drop out rate is found among the girls than of the boys in municipalities of Dum Dum (3.80% among girls & 1.35% among boys), New Barrackpur (22.76% among girls & 20.68% among boys), Panihati (20.51% among girls & 18.68% among boys) & only one block Gaighata (19.24% among girls & 18.96% among boys). In such municipalities where the drop out rate from SSA schools is high the gender variation in drop out rates does not appear to be remarkable. If at least a part of the incidence of drop out from the cohort is explained by readmission in private run schools, one should infer that the girls are not treated differently by their parents in this respect.

In the system of Primary education ideally every student after completion of one year's education should be promoted to the next immediate class without retention in the earlier class. But in reality repetition exists, at least in this cohort. Necessity of repetition is the outcome of number of factors, namely admission at underage, poor attendance rate, poor learning achievement and parents' attitude that weak students should not be promoted to the next classes. Some of the repeaters ultimately drop out from the formal education system and some of them successfully complete their primary education cycle. Some repeaters may even repeat for more than one year in the same or different classes.

During the scheduled four years period of study a total of 28.06 percent students were found repeating at least once in different classes starting from Class-I to Class-IV (Table 7.3.12). Repetition as a phenomenon was found to take place mostly at class I level. 14.86 percent of the students had to repeat at class I. The repetition rate appeared to decline fast at higher classes. One should also observe that there was wide variation among the blocks and municipalities as regards the incidence of repetition at class I. At Baranagar municipality for example, the repetition rate at class I was 4.02 percent. In Baduria municipality the percentage of repeaters at class I was 20.87 percent. 23.37 percent of the admitted students were repeaters at class I in Amdanga block. In Deganaga block on the other hand, the percentage of repeaters was 9.91 percent at the level of class I. Inter-block and inter-municipality variation in repetition was also high at other classes.

Table 7.3.12: Class wise Repetition Rate

SL	Block/ Municipality	Class- I	Class- II	Class- III	Class- IV	TOTAL
1	Amdanga	23.37	9.18	6.29	5.78	44.62
2	Ashokenagar- Kal.(M)	20.95	4.66	2.70	1.39	29.71
3	Baduria	22.91	6.32	3.72	1.16	34.10
4	Baduria(M)	20.87	3.46	2.16	3.12	29.61
5	Bagdah	13.94	7.65	6.15	4.14	31.88
6	Baranagar(M)	4.02	3.17	2.96	0.89	11.03
7	Barasat- I	13.87	7.22	5.97	3.14	30.20
8	Barasat- II	19.12	7.29	5.63	5.69	37.73
9	Barasat(M)	7.03	4.29	3.08	7.06	21.46
10	Barrackpore- I	11.44	4.39	4.64	1.31	21.78
11	Barrackpore- II	16.11	6.31	5.32	1.06	28.80
12	Barrackpore Cant. Board	22.97	2.87	2.39	0.96	29.19
13	Barrackpore(M)	13.92	2.48	1.68	0.98	19.06

Table 7.3.12 Contd.

SL	Block/ Municipality	Class- I	Class- II	Class- III	Class- IV	TOTAL
14	Basirhat- I	8.49	4.17	2.26	1.57	16.48
15	Basirhat- II	7.73	5.24	4.99	1.88	19.84
16	Basirhat(M)	4.31	1.95	1.12	0.71	8.08
17	Bhatpara(M)	19.42	7.18	4.27	2.02	32.89
18	Bidhannagar(M)	10.48	7.03	4.64	0.40	22.55
19	Bongaon	14.95	5.80	4.88	2.67	28.31
20	Bongaon(M)	15.52	5.27	7.23	2.53	30.55
21	Deganga	9.91	5.92	3.81	1.53	21.16
22	Dum Dum(M)	0.54	0.81	0.00	0.41	1.76
23	Gaighata	18.04	7.44	6.28	4.05	35.81
24	Garulia(M)	4.41	2.88	3.65	2.69	13.63
25	Gobardanga(M)	20.39	5.49	4.71	0.78	31.37
26	Habra- I	9.18	4.63	3.84	2.05	19.70
27	Habra- II	19.37	7.65	4.08	3.61	34.70
28	Habra(M)	14.62	5.90	4.45	0.95	25.93
29	Halisahar(M)	17.13	3.50	2.76	1.78	25.17
30	Haroa	13.57	6.48	2.54	2.60	25.19
31	Hasnabad	13.68	7.10	3.49	1.48	25.74
32	Hingalganj	19.76	5.60	5.20	3.37	33.92
33	Kamarhati(M)	10.06	3.15	2.30	0.88	16.39
34	Kanchrapara(M)	7.57	2.96	3.13	1.39	15.04
35	Khardah(M)	14.16	7.53	4.68	0.39	26.75
36	Madhyamgram(M)	23.01	10.96	8.61	7.30	49.88
37	Minakhan	13.07	6.45	3.28	2.59	25.39
38	Naihati(M)	14.88	5.48	4.68	1.34	26.38
39	New Barrackpore(M)	10.42	6.23	7.07	2.33	26.05
40	North Barrackpore(M)	4.25	3.01	1.56	0.21	9.02
41	North Dum Dum(M)	4.82	2.79	2.68	1.48	11.77
42	Panihati(M)	19.17	7.87	5.48	3.71	36.23
43	Rajarhat	11.43	5.24	2.62	1.35	20.64
44	Rajarhat Gopalpur(M)	26.15	6.58	4.97	2.19	39.89
45	Sandeshkhali- I	22.27	5.08	4.49	2.49	34.33
46	Sandeshkhali- II	18.18	7.17	4.03	1.23	30.61
47	South Dum Dum(M)	12.31	2.71	2.71	1.24	18.96
48	Swarupnagar	16.31	5.51	3.46	3.00	28.29
49	Taki(M)	22.35	6.43	0.80	1.13	30.71
50	Titagarh (M)	6.89	4.06	2.84	0.00	13.79
DISTRICT TOTAL		14.86	6.08	4.47	2.66	28.06

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

It appears that there is hardly any gender variation in the incidence of repetition. Thus in Amdanga, the repetition rate among the boys was 46.91. The rate was 42.28 among the girls. In Baduria the repetition rate was almost the same among the boys and the girls. One should also mention that in such municipalities or blocks in which the repetition rate was low, the gender variation with respect to repetition was also found to be low (Table 7.3.13). An exceptional scenario was observed in Taki municipality. The repetition rate among the boys in the cohort in Taki was 22.70 percent; among the girls the rate was 38.36 percent.

Table 7.3.13: Repetition Rate among Boys & Girls

Sl	Block/ Municipality	Boy	Girl	Total
1	Amdanga	46.91	42.28	44.62
2	Ashokenagar- Kal.(M)	27.97	31.47	29.71
3	Baduria	32.53	35.69	34.10
4	Baduria(M)	29.38	29.83	29.61
5	Bagdah	31.55	32.19	31.88
6	Baranagar(M)	12.16	10.14	11.03
7	Barasat- I	32.44	27.77	30.20
8	Barasat- II	37.65	37.80	37.73
9	Barasat(M)	21.04	21.88	21.46
10	Barrackpore- I	21.56	22.01	21.78
11	Barrackpore- II	27.47	30.20	28.80
12	Barrackpore Cant. Board	31.45	25.88	29.19
13	Barrackpore(M)	22.29	16.67	19.06
14	Basirhat- I	18.61	14.18	16.48
15	Basirhat- II	20.79	18.86	19.84
16	Basirhat(M)	8.65	7.49	8.08
17	Bhatpara(M)	33.33	32.51	32.89
18	Bidhannagar(M)	21.95	23.23	22.55
19	Bongaon	28.82	27.76	28.31
20	Bongaon(M)	32.83	27.64	30.55
21	Deganga	20.63	21.65	21.16
22	Dum Dum(M)	1.62	1.90	1.76
23	Gaighata	36.28	35.33	35.81
24	Garulia(M)	13.64	13.62	13.63
25	Gobardanga(M)	27.08	35.19	31.37
26	Habra- I	20.27	19.13	19.70
27	Habra- II	36.10	33.46	34.70

Table 7.3.13 Contd.

Sl	Block/ Municipality	Boy	Girl	Total
28	Habra(M)	24.82	27.08	25.93
29	Halisahar(M)	24.97	25.38	25.17
30	Haroa	23.78	26.62	25.19
31	Hasnabad	25.62	25.86	25.74
32	Hingaljanj	33.78	34.07	33.92
33	Kamarhati(M)	17.36	15.38	16.39
34	Kanchrapara(M)	14.55	15.55	15.04
35	Khardah(M)	26.53	27.03	26.75
36	Madhyamgram(M)	47.56	51.89	49.88
37	Minakhan	24.74	26.09	25.39
38	Naihati(M)	27.37	25.38	26.38
39	New Barrackpore(M)	23.71	28.60	26.05
40	North Barrackpore(M)	7.40	10.59	9.02
41	North Dum Dum(M)	14.24	9.15	11.77
42	Panihati(M)	33.15	39.13	36.23
43	Rajarhat	21.49	19.83	20.64
44	Rajarhat Gopalpur(M)	40.75	38.99	39.89
45	Sandeshkhali- I	35.14	33.52	34.33
46	Sandeshkhali- II	27.84	33.59	30.61
47	South Dum Dum(M)	17.25	20.59	18.96
48	Swarupnagar	30.26	26.26	28.29
49	Taki(M)	22.70	38.36	30.71
50	Titagarh (M)	13.90	13.67	13.79
DISTRICT TOTAL		28.01	28.10	28.06

Source: Study on Primary Schools based on Cohort Method, 2007-08, SSA, North 24 Parganas

Summarising the findings of the cohort study, we would observe as follows. In 3162 SSA run primary schools information with respect to a cohort of 157279 students reveal that the CRF is only 57.05 percent. The rest, 42.95 percent to be precise are either repeaters or drop outs or migrants from the SSA schools. The overall drop out rate is 14.05 and the repetition rate is phenomenally high (28.06). A small percentage of the students were reported to have migrated from the schools. Since students often migrate without taking migration certificates, a high percentage of students who were recorded as dropped out might have been inducted in non-SSA (private) schools. The findings of the cohort study also indicate that there is hardly any gender variation in either CRF or repetition. Even in the phenomenon of drop out, it appears that there is hardly any gender variation in the district.

School Facility

It is often stated that the quality of learning remains poor because the pressure on the existing infrastructure is quite high so much so that the state sponsored service providers fail to impart quality education. In fact, the recent growth of private service providers in elementary education even at the distant villages is largely rationalized on this ground. We shall examine this issue in this section of the report.

In rural North 24 Parganas, there are 6139 habitations. 2331 of these habitations have primary schools within the villages, according to the 7th All India Education Survey, 2002. Among the remaining villages, 3334 have primary schools within 1 km of the concerned village. There are only 474 habitations for which the primary schools are not available within 1 km of these villages. The official data also inform that there are upper primary schools either within the village or within 1 km of the village with respect to 5214 habitations. There does exist block specific variation with respect to the existence of these facilities. Thus, in Minakhan, there are 60 habitations (out of 319 habitations) for which there are no primary schools within 1 km (Table 7.3.14). The percentage of such villages is higher in Sandeshkhali. Out of 165 habitations in Sandeshkhali I, there are 56 habitations for which there is no primary schools within 1 km of the concerned villages. In Bongaon also there are 45 such villages. Such variations notwithstanding, one would conclude that by and large the habitations of the district are endowed with primary schools (and upper primary schools).

Table 7.3.14: Accessibility of Rural Schools in North 24 Parganas 2002

Number of Habitations having School Facility							
Name of the Block	Total Number of Habitations	Primary School in Village	Primary School within 1 Km	Primary School > 1Km	Upper Primary School in Village	Upper Primary School within 1 Km	Upper Primary School > 1Km
Amdanga	311	84	222	5	16	223	72
Baduria	314	168	130	16	22	276	16
Bagda	428	130	249	49	23	349	56
Barasat - I	231	123	90	18	21	159	51
Barasat - II	275	86	167	22	10	215	50
Barrackpore - I	185	60	107	18	10	124	51
Barrackpore - II	93	26	59	8	6	65	22
Basirhat - I	258	87	142	29	14	221	23
Basirhat - II	248	113	121	14	13	206	29
Bongaon	592	253	294	45	80	381	131
Deganga	448	166	272	10	24	389	35
Gaighata	427	155	270	2	50	372	5

Table 7.3.14 ... Contd.

Number of Habitations having School Facility							
Name of the Block	Total Number of Habitations	Primary School in Village	Primary School within 1 Km	Primary School > 1Km	Upper Primary School in Village	Upper Primary School within 1 Km	Upper Primary School > 1Km
Habra - I	263	92	156	15	14	216	33
Habra - II	301	73	206	22	14	267	20
Haroa	277	81	177	19	10	213	54
Hasnabad	226	100	98	28	20	158	48
Hingalganj	204	118	72	14	26	163	15
Minakhan	319	81	178	60	18	215	86
Rajarhat	184	57	122	5	11	136	37
Sandeskhali - I	165	71	38	56	16	85	64
Sandeskhali - II	100	62	19	19	19	54	27
Swarupnagar	290	145	145	0	17	273	0
Rural North 24 Parganas	6139	2331	3334	474	454	4760	925

Source: Seventh All India Education Survey 2002

There are 2305 primary schools in rural North 24 Parganas for which information on physical infrastructure was available in 7th AIES. 61.56 percent of these schools had pucca building. Pucca and partially pucca taken together accounted for 96.44 percent of the primary schools in rural North 24 Parganas. It is not true that most of the primary schools in the rural part of the district do not have pucca or partially pucca school building. There were only 43 schools for which the building remained kuchcha, as reported in 2002. In 2002 there were 14 schools which were being held under tent and 25 schools were being held in open space. By 2008, the scenario has changed for better according to District administrative sources. As Table 7.3.15 indicate, most of the schools in Deganaga, Haroa and Minakhan, the blocks in which the progress of primary education was poor (see the previous section), are held in pucca or partially pucca buildings. (In fact, in Deganaga there was no kuchcha primary school building.) It is also true with respect to Hasnabad and Sandeshkhali. According to the 7th AIES, 2002 there was no kuchcha primary school building in Bagdah. Kuchcha primary school was also non-existent in Swarupnagar.

Table 7.3.15: Basic School Infrastructure in North 24 Parganas Building Type (2002)

Block	Pucca Primary school Building	Partly Pucca Primary school Building	Kuchcha Primary School Building	Primary school held under Tent	Primary School held in Open Space	Total
Amdanga	40	39	2	1	0	82
Baduria	118	55	3	0	4	180
Bagdah	95	35	0	1	0	131
Barasat - I	72	14	1	0	0	87
Barasat - II	48	35	2	0	0	85
Barrackpore - I	61	2	4	0	0	67
Barrackpore - II	18	8	0	0	0	26
Basirhat - I	49	34	2	0	3	88
Basirhat - II	74	36	3	1	1	115
Bongaon	108	75	2	0	2	187
Deganga	61	103	0	0	0	164
Gaighata	80	76	1	0	1	158
Habra - I	48	31	2	1	1	83
Habra - II	56	10	1	0	1	68
Haroa	38	44	2	0	2	86
Hasnabad	94	22	1	0	1	118
Hingaljanj	75	40	4	5	3	127
Minakhan	44	27	3	3	2	79
Rajarhat	29	27	2	0	0	58
Sandeshkhali - I	42	34	3	0	4	83
Sandeshkhali - II	42	41	5	2	0	90
Swarupnagar	127	16	0	0	0	143
Rural	1419	804	43	14	25	2305
Urban	979	505	25	2	3	1514
Total	2398	1309	68	16	28	3819

Source: Seventh All India Education Survey 2002

The scenario has changed for better since the 7th AIES. The number of schools in the district is now 2366. We have the detailed information with respect to classroom status of these schools. There are still 14 schools in which classes are held in tents. However no school now runs on open space. Many of the schools have now all pucca classrooms. The number of kutcha classrooms in the district is now as low as 32. If we consider the classroom wise data, we observe that 86.88 percent of the classrooms in the primary schools of the district are now pucca. In blocks like Basirhat I where there are 270 classrooms in state run schools, the number of pucca classrooms is 258. The scenario is even better in Barrackpore II where 148 out of 153 classrooms are pucca. Even in backward blocks like Sandeshkhali II 244 out of 291 classrooms are pucca (Table 7.3.15a).

Table 7.3.15a: Blockwise Class Room Status of Primary Schools

Name of the Block	Pucca Class Room	Partial Pucca Class Room	Kuccha Class Room	Tent Class Room	Total
Amdanga	298	27	0	0	325
Baduria	467	39	1	0	507
Bagdah	402	17	0	0	419
Barasat-I	333	17	1	0	351
Barasat-II	282	41	2	0	325
Basirhat-I	258	12	0	0	270
Basirhat-II	354	13	0	0	367
Barrackpore-I	176	33	3	0	212
Barrackpore-II	148	5	0	0	153
Bangaon	549	60	3	0	612
Deganga	455	81	0	2	538
Gaighata	362	132	6	1	501
Habra-I	201	85	1	6	293
Habra-II	217	34	3	2	256
Haroa	194	100	10	0	304
Hasnabad	296	32	1	1	330
Hingalganj	293	61	0	0	354
Minakhan	286	34	1	0	321
Rajarhat	181	13	0	0	194
Sandeshkhali-I	275	30	0	2	307
Sandeshkhali-II	244	47	0	0	291
Swarupnagar	419	51	0	0	470
Total	6690	964	32	14	7700

Source: SSA Cell, North 24 Parganas, 2008-2009

In urban part of the district information with respect to physical infrastructure was available in case of 1514 primary schools. As reported in 7th AIES, 979 of these schools had pucca primary school building. Pucca and partially pucca taken together accounted for the building infrastructure of 1484 (out of 1514) primary schools in urban North 24 Parganas. The general scenario is that out of 3819 schools for which the information was available, 2398 had pucca primary school building, 1309 had partially pucca school building. Classes were held in kuccha school building only in case of 68 schools, 25 of which were in urban North 24 Parganas and the remaining 43 in the rural part of the district.

The latest available information on municipality wise classroom status of the schools indicate that there are 3477 pucca classrooms in the SSA covered municipal schools of the district. There are only 48 kuccha classrooms and in case of 3 schools of Bhatpara municipality classes are held in tents. The percentage of pucca classrooms in the urban part of the district is 79.31. It appears that the physical infrastructure in SSA covered rural schools is better (percentage of pucca classrooms there is 86.88). The scenario is very bad in Habra. In the SSA covered municipal schools in Habra there are 143 classrooms. Only 78 of these classrooms are pucca and 63 are partially pucca. The infrastructural scenario appears to be better in such municipal run schools which are nearer to Kolkata (Table 7.3.15b).

Table 7.3.15b: Municipality wise Class Room Status of Primary Schools

Name of the Municipality	Pucca Class Room	Partial Pucca Class Room	Kuccha Class Room	Tent Class Room	Total
Ashoknagar Kalayangarh	112	52	2	0	166
Baduria	104	5	0	0	109
Baranagar	211	17	0	0	228
Barasat	220	24	2	0	246
Barrackpore CB	18	8	2	0	28
Barrackpore	121	27	0	0	148
Basirhat	176	8	0	0	184
Bhatpara	258	136	12	3	409
Bidhannagar	71	15	0	0	86
Bongaon	102	14	0	0	116
Dum Dum	87	14	0	0	101
Garulia	40	13	4	0	57
Gobardanga	57	16	1	0	74
Habra	78	63	2	0	143
Halisahar	121	30	0	0	151
Kamarhati	224	73	13	0	310
Kanchrapara	112	71	0	0	183
Khardah	31	8	0	0	39
Madhyamgram	95	10	1	0	106
Naihati	144	69	4	0	217
New Barrackpore	60	20	0	0	80
North Barrackpore	137	26	2	0	165
North Dum Dum	191	28	0	0	219
Panihati	222	42	1	0	265
Rajarhat Gopalpur	123	5	0	0	128
South Dum Dum	232	40	2	0	274
Taki	58	5	0	0	63
Titagarh	72	17	0	0	89
Total	3477	856	48	3	4384

Source: SSA , North 24 Parganas, 2008-2009

Table 7.3.16: Student Load in State Sponsored Primary Schools in Rural North 24 Parganas

Name of the Block	Enrolment Primary	Teacher	No of School with single teacher	No of Primary School	Student per Institutions	Per Institutions Teacher	PTR	SSR
Amdanga	17051	311	1	82	208	4	54.83	8.81
Baduria	23044	502	8	182	127	3	45.90	9.55
Bagdah	16565	358	3	131	126	3	46.27	13.27
Barasat - I	17332	361	0	93	186	4	48.01	8.10
Barasat - II	14920	296	1	85	176	3	50.41	8.88
Barrackpore - I	7958	206	1	67	119	3	38.63	10.83
Barrackpore - II	6306	162	1	36	175	5	38.93	9.21
Basirhat - I	13059	244	2	89	147	3	53.52	23.46
Basirhat - II	15865	323	6	122	130	3	49.12	10.11
Bongaon	26998	605	2	189	143	3	44.62	8.05
Deganga	22024	494	4	167	132	3	44.58	8.01
Gaighata	19366	491	2	162	120	3	39.44	11.90
Habra - I	12926	295	1	93	139	3	43.82	9.10
Habra - II	11084	218	3	75	148	3	50.84	8.24
Haroa	19260	268	0	86	224	3	71.87	6.59
Hasnabad	16809	309	8	118	142	3	54.40	10.79
Hingalganj	12784	319	7	127	101	3	40.08	9.19
Minakhan	19433	221	3	82	237	3	87.93	5.79
Rajarhat	12518	240	0	60	209	4	52.16	14.19
Sandeshkhali - I	15020	224	3	87	173	3	67.05	6.86
Sandeshkhali - II	12778	207	8	90	142	2	61.73	10.60
Swarupnagar	18872	382	14	144	131	3	49.40	8.40
Total	351972	7036	78	2367	149	3	50.02	9.72

Source: SSA, 24 Parganas(N), 2007-08

Sarva Siksha Aviyan, North 24 Parganas provides information on student enrolment, the number of teachers and the space available in the class room in the primary schools of the DPSC run schools as described in Table 7.3.16. In 2007-2008, 351972 students were enrolled in the primary schools in rural North 24 Parganas. The number of teachers in the DPSC schools was 7036. The number of students per teacher in the DPSC schools thus works out as 50.02. The student load per teacher is quite high in the primary schools in rural North 24 Parganas. The aggregate often blurs the micro level reality. In rural North 24 Parganas there are 78 schools which are run by only single teacher. There are schools in which the number of students is very high so much so that the Pupil Teacher Ratio (PTR) is found to be more than 100⁴. The inter block variation with respect to PTR is also quite high. In Haroa for example PTR is as high as 71.87

⁴ In Amdanga, Srirampur FP school (PTR 110), in Baduria, Safirabad Junior Basic (PTR 133), in Barasat, Banikantanagar FP school (PTR 254), in Basirhat II, Jagatpur FP school (PTR 200), in Minakhan, Quchildaha Junior Basic (PTR 409).

percent, in Minakhan the PTR is still higher (87.93). There are three schools in Minakhan with just a single teacher per school. On the other hand there are blocks like Barackpore I and Barackpore II in which the PTR had been 38.63 and 38.93 respectively. Space Student Ratio (SSR) is 9.72 square ft, on an average, for the rural part of the

Table 7.3.17: Student Load in State Sponsored Primary Schools in Urban North 24 Parganas

Name of the Municipality/CB	Enrolment Primary	Teacher	No of School with single teacher	No of Primary School	Student per Institutions	Per Institutions Teacher	PTR	SSR
Ashoknagar Kalayangarh	6892	182	0	64	108	3	37.87	9.59
Baduria	4694	114	3	42	112	3	41.18	9.92
Baranagar	8216	188	4	55	149	3	43.70	7.11
Barasat	12485	254	1	64	195	4	49.15	7.52
Barrackpore CB	784	30	0	10	78	3	26.13	7.69
Barrackpore	5997	147	2	39	154	4	40.80	10.25
Basirhat	7400	134	10	56	132	2	55.22	8.62
Bhatpara	19300	416	10	135	143	3	46.39	7.29
Bidhannagar	3786	87	0	19	199	5	43.52	8.66
Bongaon	4403	129	0	36	122	4	34.13	8.89
Dum Dum	3358	69	2	23	146	3	48.67	8.24
Garulia	2404	63	1	19	127	3	38.16	9.85
Gobardanga	2065	69	0	26	79	3	29.93	13.27
Habra	7357	156	1	45	163	3	47.16	18.60
Halisahar	7123	169	1	52	137	3	42.15	6.70
Kamarhati	10598	250	2	70	151	4	42.39	7.32
Kanchrapara	4966	139	3	47	106	3	35.73	13.46
Khardah	1805	43	0	13	139	3	41.98	10.95
Madhyamgram	5941	135	0	27	220	5	44.01	6.76
Naihati	6763	196	6	64	106	3	34.51	9.76
New Barrackpore	2983	89	1	29	103	3	33.52	8.15
North Barrackpore	4808	127	1	42	114	3	37.86	14.49
North Dum Dum	8147	212	2	60	136	4	38.43	9.24
Panihati	11175	266	2	82	136	3	42.01	9.45
Rajarhat Gopalpur	8236	133	0	31	266	4	61.92	4.90
South Dum Dum	9707	233	9	72	135	3	41.66	8.03
Taki	2620	67	0	23	114	3	39.10	12.01
Titagarh	4646	121	0	36	129	3	38.40	6.37
Total	178659	4218	61	1281	139	3	42.36	8.94

Source: SSA, North 24 Parganas, 2007-08

district. There exists wide inter block variation with respect to SSR. In Basirhat I average SSR is 23.46 square ft. For Haroa on the other hand, the block average is only 6.59 sq ft. The average SSR in Minakhan is still lower (5.79 sq ft). The general scenario is that many of the school in the villages of the district suffer from acute shortage of space. Needless to say, quality education cannot be imparted under such dispensations. In the DPSC run schools there exists shortage of space and shortage of teachers. No wonder that the survey on quality of learning as conducted by Pratham revealed that more than one fourth of the students in DPSC run schools cannot even recognize letters in vernacular languages.

The average scenario in the state sponsored⁵ schools in the municipalities of the district appears to be better (Table 7.3.17). Students per institutions in municipalities is 139, on an average there are three teachers per institution; the teacher taught ratio is 1: 42.36 and space per student is 8.94 sq ft. However there are 61 schools (out of 1281) in which there is only one teacher per school. There also exists wide inter municipality variation with respect to both PTR and SSR. Thus, the PTR was as low as 29.93 in Gobardanga; in Rajarhat Gopalpur, on the other hand, the PTR was as high as 62.92; in Barackpore CB the PTR was 26.13; in Basirhat it was 55.22. In some municipalities the student load in the schools under state systems was very high. In some cases the load was quite low. This is also true with respect to SSR. An average student in Habra municipal area school is entitled with 18.6 sq ft, in Madhyamgram a student is endowed with the space of only 6.76 sq ft, on an average. The SSR in Rajarhat Gopalpur is the lowest (4.9 sq ft). The burden of evidence is in favour of the argument that in many of the state sponsored schools in urban North 24 Parganas there exists shortage of space; the student load per teacher is also very high in these schools. The quality of the service provider is bound to suffer under such a situation. A space for private service providers is created accordingly.

7.4 SSK, MSK and Non-formal Education in the District

In order to facilitate the process of access to education, the district now runs special educational programmes under SSA. For the children who are not being enrolled in primary schools there are Shishu Shiksha Kendras (SSKs) in the villages of the district. For the children in upper age group who have completed the primary education and did not get enrolled in secondary schools, there are Madhyamik Shiksha Kendras (MSKs) in the rural part of the district. The current status with respect to SSK and MSK is described in Table 7.4.1 and 7.4.2.

According to DISE, there were 957 SSKs in rural North 24 Parganas in 2007. 104514 students were enrolled in these SSKs. SSKs are run by Sahayikas. There were 2975 such resource persons in the SSKs in North 24 Parganas. The PTR in the SSKs on an average, had been 35.13. In terms of the number of enrolment, Deganaga was the leading block. The number of enrolment in Deganaga in 2007 was 7798. Next in terms of enrolment was Habra I in which the number of enrolled students was 7343. The PTR in Deganaga was 34.20, that in Habra being 35.30. The other blocks in which there had been large number of enrolments were Sandeshkhali I (6008), Haroa (6020), Basirhat I (5637) and Baduria (5631). As Table 7.4.1 indicates, SSKs are serving the purpose of bringing in girl children in large numbers in the network of formal education in some of the backward blocks of the district. In Baduria for example, the percentage of girl children in SSKs was as high as 54.80. At the level of Class II, the percentage of girl children in Baduria was as high as 66.49. The percentage of girl students was 51.92 in Minakhan. In Minakhan, at the level of class IV, the percentage of girl students was 59.81. If we consider the district average, it appears that the percentage of girl students is roughly equal to the percentage of boys in the SSKs. This is explained by the fact that in Amdanga, Habra I, Habra II and Swarupnagar, the girl students account for less than 49 percent of total enrolment in the SSKs.

⁵ Includes 10 primary schools in Barrackpore Cantonment Board.

Table 7.4.1: Enrolment in SSK in Rural North 24 Parganas

Block	Total Enrolment in SSK	Sahayika	Number of SSK	Percentage of Girls in Class I	Percentage of Girls in Class II	Percentage of Girls in Class III	Percentage of Girls in Class IV	Percentage of Girls in all	PTR
Amdanga	2058	58	17	45.85	48.22	48.10	54.07	48.35	35.48
Barasat-I	4360	126	38	47.17	50.33	52.11	47.60	49.11	34.60
Barasat-II	4445	133	40	50.14	50.57	51.83	54.21	51.32	33.42
Deganga	7798	228	60	47.83	48.30	50.74	52.24	49.41	34.20
Habra-I	7343	208	59	46.73	48.57	49.50	50.20	48.50	35.30
Habra-II	3166	79	23	45.59	49.74	48.66	51.48	48.52	40.08
Rajarhat	2404	68	23	48.92	50.27	52.08	53.81	50.83	35.35
Barrackpore-I	3300	108	37	49.23	50.59	51.70	52.51	50.67	30.56
Barrackpore-II	4672	139	53	48.85	50.22	52.77	49.32	50.06	33.61
Baduria	5631	158	50	50.22	66.49	47.48	51.06	54.80	35.64
Basirhat-I	5637	155	46	49.70	50.19	50.62	53.60	50.68	36.37
Basirhat-II	5183	151	56	48.10	50.31	49.64	53.75	50.03	34.32
Haroa	6020	140	45	48.77	50.37	48.50	51.40	49.50	43.00
Hasnabad	5618	155	45	46.56	48.80	51.44	52.76	49.09	36.25
Hingalganj	3970	135	48	50.75	49.32	50.80	48.73	50.10	29.41
Minakhan	3575	78	25	49.86	48.98	50.81	59.81	51.92	45.83
Sandeshkhali-I	6008	138	48	49.65	45.94	51.66	46.26	48.57	43.54
Sandeshkhali-II	4831	134	45	47.65	49.00	48.86	47.58	48.17	36.05
Swarupnagar	5360	150	48	47.90	48.58	49.39	49.72	48.75	35.73
Bagdah	4829	158	60	50.06	50.89	52.18	45.31	49.68	30.56
Bongaon	3741	130	40	49.20	48.73	43.82	46.35	47.31	28.78
Gaighata	4565	146	51	47.82	46.80	52.83	49.78	49.00	31.27
Total	104514	2975	957	48.53	50.36	50.31	50.76	49.74	35.13

Source: DISE 2007, SSK, North 24 Parganas

Even if the girl students are allowed to attend formal schools at the primary level, at the higher level of education the girls in rural North 24 Parganas largely remains excluded. The reason which is often cited by the parents for denying the girl child the right to attend schools at secondary level is that secondary schools in many cases are not located in the habitation of the family and the parents do not find it safe to send the girl child to a distant secondary school. Madhyamik Shiksha Kendra (MSK) often provides the solution to the parents of a large number of villages which find these MSKs as doorstep schools where the grown up girls are safe. The information with respect to enrolment in MSK in rural North 24 Parganas indirectly substantiates this view. In the MSKs in rural North 24 Parganas, the percentage of girl children is higher than that of the boys. At the higher classes it is almost systematically higher than that of the boys in almost all the blocks. In Class VII, in all the blocks the percentage of girl children in MSKs is higher than those of the boys. In Deganaga (a minority dominated block) for example, the percentage of girls in Class VI is 76.07, in Swarupnagar another minority dominated block, the percentage is 76.29.

Table 7.4.2: Enrolment in MSK in Rural North 24 Parganas

Name of the Block	Total Enrolment in MSK	Samprasarak	Number of MSK	Percentage of Girls in Class V	Percentage of Girls in Class VI	Percentage of Girls in Class VII	Percentage of Girls in Class VIII	Percentage of Girls in all	PTR
Amdanga	1328	16	3	57.24	60.47	65.78	80.23	62.95	83.00
Barasat-I	2456	50	9	62.07	61.31	63.25	66.94	63.11	49.12
Barasat-II	2019	40	7	62.96	66.78	68.76	72.86	66.67	50.48
Deganga	3170	60	10	66.03	71.43	76.07	80.59	72.52	52.83
Habra-I	-	-	-	-	-	-	-	-	-
Habra-II	634	17	4	63.00	62.43	66.83	62.50	64.04	37.29
Rajarhat	384	3	1	55.03	51.92	62.00	74.19	57.55	128.00
Barrackpore-I	452	12	2	46.02	53.15	57.94	48.31	51.55	37.67
Barrackpore-II	721	19	4	58.71	57.53	61.33	71.59	60.47	37.95
Baduria	1231	38	7	62.46	63.16	64.42	57.36	62.06	32.39
Basirhat-I	963	25	5	58.62	63.14	65.31	67.53	62.51	38.52
Basirhat-II	243	12	2	63.64	72.06	82.14	80.77	69.96	20.25
Haroa	2444	46	8	59.77	64.03	68.30	72.78	65.02	53.13
Hasnabad	1360	51	9	59.75	46.95	60.37	57.79	56.62	26.67
Hingalganj	586	24	4	53.85	54.07	51.49	51.35	52.90	24.42
Minakhan	1733	36	6	55.74	63.62	57.72	59.40	58.86	48.14
Sandeshkhali-I	945	28	8	52.66	55.15	52.71	46.81	52.80	33.75
Sandeshkhali-II	577	22	4	55.00	53.13	51.24	62.50	54.42	26.23
Swarupnagar	392	11	2	71.17	79.25	76.29	69.23	74.23	35.64
Bagdah	513	12	3	46.40	46.88	54.29	57.69	48.73	42.75
Bongaon	1348	32	6	53.30	54.44	61.36	58.36	56.38	42.13
Gaighata	554	23	4	51.69	52.70	53.54	66.34	55.05	24.09
Total	24053	577	108	59.08	61.46	64.48	67.06	62.24	41.69

Source: DISE 2007, MSK, North 24 Parganas

At the level of Class VIII, the overall percentage of girl children was 67.06 (Table 7.4.2). In Amdanga, the percentage was 80.23, in Derange it was 80.59. Even in blocks like Gaighata, where the minority does not dominate the percentage of girl children in class VIII was 66.34.

The PTR in Masks had been very high in many of the blocks of the district. The overall pupil teacher ratio was 41.69 per teacher which itself is quite high. This is largely due to the fact that the number of Samprasarak had been only 577 for 24053 enrolled students. There was wide inter block variation in PTR. In Amdanga, the PTR was 83. In Hingalganj, on the other hand, the PTR was as low as 24.42. In Basirhat II, the PTR was still lower (20.25). At the other extreme there was block like Rajarhat where there was only one MSK with 3 Samprasarak having an enrolment of 384. The PTR in Rajarhat was thus 128. It appears that MSK has much potentiality which largely remains underutilised.

In order to eradicate adult illiteracy, the government now implements a programme for providing special and non-formal education with the help of the pedagogy that suits the adult illiterates. The adult literacy centers run by volunteers who have been trained for imparting education to the adult illiterates are the points where the learners are supposed to meet in suitable hours (usually in the evenings). There are 5427 such centers (institutions) in rural North 24 Parganas. According to the latest data (2005-06) these centers cater to the need of 243122 students. There are 7714 teachers and the average PTR in rural North 24 Parganas is 31.52. The highest number of such centers is in Baduria where 14096 students were enrolled. There had been 413 teachers and the PTR was 34.13. The PTR had been the highest (39.80) in Haroa where 12935 persons were enrolled under special and non-formal education programme. The number of training centers in Haroa had however, been much lower than that in Baduria. In terms of enrolment, Deganga was leading block. 18536 persons were enrolled in 296 centers in Deganga. There were 513 teachers associated with these adult literacy centers in Deganga. These literacy centers are also supposed to take up the programme of continual education for the newly literates. Many of the centers pursue such programmes and the enthusiasts among the newly literate regularly attend the classes. Women in large number are found to visit such centers in many of the backward blocks of the district.

Table 7.4.3: Special and Non-formal Education in Rural North 24 Parganas

Name of the Block	Special & Non Formal Education			PTR
	Institutions	Students	Teachers	
Bagdah	234	11094	325	34.14
Bongaon	299	10474	406	25.80
Gaighata	307	11638	419	27.78
Swarupnagar	239	11017	365	30.18
Habra - I	244	12847	362	35.49
Habra - II	177	7850	231	33.98
Amdanga	177	8167	215	37.99
Barrackpore - I	255	7379	338	21.83
Barrackpore - II	271	10744	385	27.91
Barasat - I	293	12311	398	30.93
Barasat - II	226	11576	297	38.98
Deganga	296	18536	513	36.13
Baduria	316	14096	413	34.13
Basirhat - I	199	10884	322	33.80
Basirhat - II	264	13242	399	33.19
Haroa	236	12935	325	39.80
Rajarhat	286	9362	342	27.37
Minakhan	200	9028	270	33.44
Sandeshkhali - I	213	9792	343	28.55
Sandeshkhali - II	244	8992	339	26.53
Hasnabad	241	13134	383	34.29
Hingalganj	210	8024	324	24.77
Total	5427	243122	7714	31.52

Source: District Statistical Handbook, 2005

The special and non-formal education system in urban North 24 Parganas did not respond the way it did in rural part of the district. Table 7.4.4 substantiates this view. In 27 municipalities of the district, there were 1324⁶ special and formal education centers in 2005-06. 14096 students were enrolled in these centers. As the data indicate, there had been much unevenness in the inter-municipality distribution of these centers. Thus, there had been only one such center in each of the big municipalities like Bongaon, Naihati, Panihati and South Dum. In Baduria on the other hand, there exists a large number of special and non-formal education centers (316). So also had been the situation in Bhatpara (233), Taki (213) and Kamarhati (163). These municipalities took together account for about 80 percent of total enrolment. in special and non-formal education centers of urban North 24 Parganas.

The average PTR was 24.66 in urban North 24 Parganas which was much lower than that of rural North 24 Parganas. Wide variation in PTR was observed among the municipalities of the district.

Table 7.4.4: Special and Non-formal Education in Urban North 24 Parganas

Name of the Block	Special & Non Formal Education			PTR
	Institutions	Students	Teachers	
Bongaon	1	40	5	8.00
Habra	80	1567	78	20.09
Gobardanga	57	999	56	17.84
Ashoknagar Kalayangarh	2	13	1	13.00
Barasat	3	509	20	25.45
Madhyamgram	-	-	-	-
Rajarhat Gopalpur	-	-	-	-
Kanchrapara	-	-	-	-
Halisahar	2	235	37	6.35
Naihati	1	10	1	10.00
Bhatpara	233	3560	134	26.57
Garulia	-	-	-	-
North Barrackpore	2	295	16	18.44
Barrackpore	1	1	1	1.00
Titagarh	111	1966	111	17.71
Khardah	2	389	25	15.56
Panihati	1	77	-	-
New Barrackpore	-	-	-	-
Kamarhati	163	3062	162	18.90
Baranagar	132	2116	150	14.11
Dum Dum	-	-	-	-
South Dum Dum	1	50	10	5
North Dum Dum	-	-	-	-
Bidhannagar	3	584	33	17.70
Baduria	316	14096	413	34.13
Taki	213	9792	343	28.55
Bashirhat	-	-	-	-
Total	1324	39361	1596	24.66

Source: District Statistical Handbook, 2005

⁶ Information was not available with respect to the following municipalities: Madhyamgram, Rajarhat Gopalpur, Kanchrapara, Garulia, New Barrackpore, Dum Dum and North Dum Dum.

Thus, the PTR was only 5 in South Dum Dum which had only one center and 10 teachers served only 50 students. PTR was also very low in Halisahar. In Barrackpur, there was only one student in only one institution and there was a teacher for running the center. The PTR was there only 1. This of course is one extreme. Urban North 24 Parganas also has a municipality like Baduria where there are 316 training centers and 14096 students. The number of teachers being only 413, the PTR in Baduria was 34.13 (highest PTR in the district). Thus, there has been a demand supply mismatch with respect to training the illiterate adults in the municipalities of the district. The percentage of illiterate adults is quite low in Barrackpur or South Dum Dum. The requirement for providing infrastructure for adult literacy campaign in these regions is low compared to the situation in Baduria or Taki. This has to be taken into consideration for enhancing the efficiency of the delivery system.

7.5 Higher Education in the District

High Schools and Higher Secondary Schools

There were 258 high schools in rural North 24 Parganas in 2005 (Table 7.5.1). The number of enrolled students was 201366 and there had been 4355 teachers serving in the high schools of the rural part of the district. The PTR was 46.24 in rural North 24 Parganas. The highest PTR was in Amdanga (84.82) and the lowest was in Sandeshkhali II (15.05). As the data indicate, the student

Table 7.5.1: Number of Institutions, Students and Teachers in the District of North 24 Parganas

Name of the Block	High School				Higher Secondary School			
	Institutions	Students	Teachers	PTR	Institutions	Students	Teachers	PTR
Bagdah	15	13312	212	62.79	7	13290	205	64.83
Bongaon	19	13113	235	55.80	17	26729	446	59.93
Gaighata	19	16810	290	57.97	12	17574	331	53.09
Swarupnagar	17	10250	274	37.41	7	7503	173	43.37
Habra - I	11	11352	192	59.13	8	8648	160	54.05
Habra - II	11	11628	146	79.64	6	6486	120	54.05
Amdanga	12	12384	146	84.82	5	5405	102	52.99
Barrackpore - I	13	8907	307	29.01	13	14619	525	27.85
Barrackpore - II	9	7066	184	38.40	4	4542	156	29.12
Barasat - I	14	14448	175	82.56	6	6476	115	56.31
Barasat - II	8	6174	84	73.50	3	3243	62	52.31
Deganga	13	13416	169	79.38	8	8646	158	54.72
Baduria	14	10167	227	44.79	12	13664	229	59.67
Basirhat - I	7	3922	173	22.67	4	2830	212	13.35

Table 7.5.1: Contd.

Name of the Block	High School				Higher Secondary School			
	Institutions	Students	Teachers	PTR	Institutions	Students	Teachers	PTR
Basirhat - II	10	7334	200	36.67	8	6991	203	34.44
Haroa	5	3758	109	34.48	7	2379	94	25.31
Rajarhat	6	6198	79	78.46	9	9128	181	50.43
Minakhan	5	3470	126	27.54	7	6546	149	43.93
Sandeshkhali - I	6	3506	180	19.48	6	5698	192	29.68
Sandeshkhali - II	13	5781	384	15.05	8	4764	198	24.06
Hasnabad	15	8006	206	38.86	5	7326	177	41.39
Hingalganj	16	10364	257	40.33	7	8929	205	43.56
Total (Rural)	258	201366	4355	46.24	169	191416	4393	43.57
Total (Urban)	250	161754	4483	36.08	270	268868	7875	34.14
District	508	363120	8838	41.09	439	460284	12268	37.52

Source: District Statistical Handbook, 2005

load varies widely among the blocks. In high schools in Swarupnagar, for example the PTR is only 37.14 where as in Habra II it is 79.64 (Table 7.5.1). In Barrackpur I the PTR is 29.01, in Barasat I it is 82.56. It appears that in some of the remote areas, the schools are being run under excess capacity. In some of the blocks, on the other hand, there are very high loads of students on existing capacity of the schools. In some of the blocks which are adjacent to cities, the village schools suffer from dearth of students. Rural schools in Barrackpur I might be the victim of such a situation. In blocks like Minakhan or Haroa or Sandeshkhali I and Sandeshkhali II, the dropout rate at lower level is high. Consequently, the number of students getting enrolled in high schools might be low which is why the PTR in these schools is low. There were 250 high schools in urban North 24 Parganas. The enrolment in these schools was 161754 in 2005-06. There were 4483 teachers engaged in these schools. As the data indicate, total enrolment in high schools in urban North 24 Parganas was less than that of schools in rural part of the district. Population in urban North 24 Parganas being higher than that in rural part of the district, a lower enrolment in the schools in urban part of the district can hardly be explained unless one takes into consideration the fact that a large number of students in urban part of the district is opting out from the state run school system-many of them are getting enrolled in private (English Medium) schools. No wonder that in the state run secondary schools in the urban part of the district, the PTR (36.08) was lower compared to that of rural North 24 Parganas.

The number of higher secondary schools in rural North 24 Parganas was 169 in 2005 according to the official data. The number of enrolled students in these institutions had been 191416. There were 4393 teachers in these institutions (Table 7.5.1). The average PTR in rural part of the district was 43.57 which was quite high. The highest PTR had been in Bagdah (64.83) and the lowest PTR was in Basirhat I (13.35). As in case of high schools, there was wide inter block variation with respect to the pressure of students at

higher secondary classes in these institutions. Thus blocks like Baduria, Bongaon, Barasat I and Gaighata have high PTR. In Baduria the PTR was 59.67, in Bongaon it was even higher 59.93. On the other hand, blocks like Sandeshkhali I, Haroa and Barrackpur I have low PTR. In urban North 24 Parganas, 268868 students were enrolled in 270 higher secondary schools. The number of teachers in these institutions was 4393. Thus PTR in urban part of the district was 34.14, which was lower than the district average PTR (37.52). It appears that the higher secondary schools under the state system in urban North 24 Parganas is performing better than the high schools in the same region.

In 2002 there were 249 high/secondary schools in rural North 24 Parganas for which information on physical infrastructure was available from 7th AIES. There were 80.72 percent high schools in rural North 24 Parganas, which had pucca buildings. The number partially pucca buildings were 46. There were only 2 high schools which had kuchcha buildings. Thus the physical infrastructure with respect to school buildings seemed to be good in rural North 24 Parganas. In urban part of the district, the number of schools, which had pucca buildings, was 231. Only 8.33 percent of the schools had partially pucca buildings and there was not a single school in urban North 24 Parganas which had kuchcha building. Among 113 higher secondary schools in rural North 24 Parganas, 91.15 percent of the schools had pucca buildings. Remaining 10 schools had partially pucca buildings. In urban North 24 Parganas information on the quality of physical infrastructure was available with respect to 264 higher secondary schools. 255 of these schools had pucca school buildings. The remaining 9 schools had partially pucca buildings. There was no school in which the building was kuchcha (Table 7.5.2).

Table 7.5.2: Secondary/Higher Secondary School Infrastructure in North 24 Parganas 2002 (Building Types)

Block	Pucca Secondary school Building	Partly Pucca Secondary school Building	Kuchcha Secondary school Building	Total	Pucca HS school building	Partly Pucca HS school Building	Kuchcha HS school Building	Total
Amdanga	11	0	0	11	4	0	0	4
Baduria	17	0	0	17	8	0	0	8
Bagdah	10	3	1	14	7	0	0	7
Barasat - I	13	2	0	15	1	0	0	1
Barasat - II	9	0	0	9	2	0	0	2
Barrackpore - I	10	2	0	12	2	0	0	2
Barrackpore - II	6	0	0	6	1	0	0	1
Basirhat - I	4	2	0	6	4	0	0	4
Basirhat - II	6	2	0	8	5	0	0	5
Bongaon	7	12	0	19	10	4	0	14
Deganga	12	2	0	14	6	1	0	7
Gaighata	14	6	0	20	5	2	0	7
Habra - I	7	1	0	8	4	1	0	5
Habra - II	11	0	0	11	3	0	0	3

Table 7.5.2 Contd.

Block	Pucca Secondary school Building	Partly Pucca Secondary school Building	Kuchcha Secondary school Building	Total	Pucca HS school building	Partly Pucca HS school Building	Kuchcha HS school Building	Total
Haroa	6	1	0	7	4	1	0	5
Hasnabad	11	1	1	13	5	0	0	5
Hingaljanj	13	3	0	16	6	0	0	6
Minakhan	5	2	0	7	4	0	0	4
Rajarhat	7	0	0	7	5	0	0	5
Sandeshkhali-I	5	1	0	6	4	1	0	5
Sandeshkhali-II	4	4	0	8	7	0	0	7
Swarupnagar	13	2	0	15	6	0	0	6
Rural	201	46	2	249	103	10	0	113
Urban	231	21	0	252	255	9	0	264
Total	432	67	2	501	358	19	0	377

Source: Seventh All India Education Survey 2002

University, General Degree Colleges, Technical and Professional Colleges

On February 2008, the West Bengal State University (Barasat, North 24 Parganas) was established in the district of North 24 Parganas for meeting the growing needs of the society in the field of higher education. At present all the General Degree Colleges, Professional Colleges within the limits of North 24 Parganas, (excluding Colleges affiliated to West Bengal University of Technology) are affiliated to this University⁷. There are 35 general colleges⁸ and 34 professional and technical schools/colleges in the district. Most of these institutions are located in the urban part of the district. There are only 5 general colleges in rural North 24 Parganas. The number of vocational institutions located in rural part of the district is only 7. This is not surprising, a college or a technical institution involves a substantive amount of investment in physical infrastructure, and the running cost of such an institution is also high compared to a primary and a secondary school. Usually, such facilities are developed in urban areas which have a higher density of population. Such institutions can also cater to the need of the nearby rural areas.

There are 30 general degree colleges in 21 municipalities of the district. The municipalities in which there is no general college are mostly the municipalities adjacent to the metro city of Kolkata such as Halisahar, Bhatpara, Garulia and Titagarh. The absence of general college in these municipalities is largely explained by the fact that there are good general colleges in the nearby municipalities that cater to the need of the residents in these municipalities. For example, there are 3 colleges in single location in Naihati Municipality that meet the needs of the residents of Halisahar and Bhatpara as well. The municipalities which are not adjacent to the metro city of Kolkata mostly have at least one general college (in South Dum Dum there are 5 general colleges). The exceptions are Gobordanga and Baduria. There are however, two colleges nearby Gobordanga. Students from Baduria usually get admitted in Basirhat College. The PTR in the colleges in the

⁷ This information was obtained from The Kolkata Gazette, Monday, February 25, 2008.

⁸ As available from District Statistical Handbook, 2005

municipalities of the district varies from 18.35 (Bidhannagar) to 130.97 (Basirhat). The average PTR is 58.64. The wide variation in PTR is largely explained by the variation in facilities offered by the colleges. The variation in the number of teachers deployed by the West Bengal College Service Commission in different colleges is also somewhat responsible for the variation in PTR. However, some colleges maintain low PTR by restricting admission (Bidhannagar College for example).

Table 7.5.2A: Number of Institutions, Students and Teachers in the Urban North 24 Parganas

Name of the Municipality	General Degree College & University (Excluding open University)				Professional & Technical Schools, Colleges & universities			
	Institutions	Students	Teachers	PTR	Institutions	Students	Teachers	PTR
Bongaon	1	3953	34	116.26	-	-	-	-
Habra	1	4777	59	80.97	2	238	16	14.88
Gobardanga	-	-	-	-	-	-	-	-
Ashoknagar Kalayangarh	1	1198	12	99.83	2	-	-	-
Barasat	2	4657	110	42.34	-	-	-	-
Madhyamgram	1	498	7	71.14	-	-	-	-
Rajarhat Gopalpur	1	1534	13	118.00	1	-	-	-
Kanchrapara	1	-	-	-	-	-	-	-
Halisahar	-	-	-	-	-	-	-	-
Naihati	3	8916	92	96.91	-	-	-	-
Bhatpara	-	-	-	-	-	-	-	-
Garulia	-	-	-	-	-	-	-	-
North Barrackpore	1	1712	45	38.04	-	-	-	-
Barrackpore	1	4192	46	91.13	-	-	-	-
Titagarh	-	-	-	-	-	-	-	-
Khardah	1	-	-	-	4	290	29	10.00
Panihati	1	790	16	49.38	1	227	62	3.66
New Barrackpore	1	2790	50	55.80	1	100	15	6.67
Kamarhati	2	4132	100	41.32	2	608	50	12.16
Baranagar	2	977	15	65.13	1	241	44	5.48
Dum Dum	1	1512	50	30.24	-	-	-	-
South Dum Dum	5	3714	125	29.71	1	353	11	32.09
North Dum Dum	1	-	-	-	-	-	-	-
Bidhannagar	1	1009	55	18.35	12	2987	478	6.25
Baduria	-	-	-	-	-	-	-	-
Taki	1	2270	46	49.35	-	-	-	-
Bashirhat	1	4846	37	130.97	-	-	-	-
Total (urban)	30	53477	912	58.64	27	5044	705	7.15
Total ((rural)	5	7338	78	94.08	7	948	79	12.00
District	35	60815	990	61.43	34	5992	784	7.64

Source: District Statistical Handbook, 2005

The PTR in the rural colleges is much higher than that of the colleges in the municipalities of the district. Table 7.5.2B describes the situation with respect to each of the 5 rural colleges. It appears that in rural areas also wide variation in PTR does exist. In the rural college of Bongaon for example. PTR is as high as 159.13. In the rural college at Barrackpur II on the other hand, the PTR is as low as 31.33. The lack of adequate number of teachers is of course the basic reason for high PTR in Bongaon college. In Barrackpur II on the other hand, there is a large number of teachers, but the number of students enrolled is poor.

Table 7.5.2 B: Number of Institutions, Students and Teachers in the Rural North 24 Parganas

Name of the Municipality	General Degree College & University (Excluding open University)				Professional & Technical Schools, Colleges & universities			
	Institutions	Students	Teachers	PTR	Institutions	Students	Teachers	PTR
Bongaon	1	1273	8	159.13	1	55	3	18.33
Habra - I	1	3847	28	137.39	2	150	11	13.64
Barrackpore - I	-	-	-	-	2	251	27	9.30
Barrackpore - II	1	470	15	31.33	-	-	-	-
Barasat - I	-	-	-	-	1	99	15	6.60
Deganga	1	995	20	49.75	1	393	23	17.09
Sandeshkhali - I	1	753	7	107.57	-	-	-	-
Total	5	7338	78	94.08	7	948	79	12.00

* The blocks in which there is no such institutions are: Bagda, Gaighata, Swarupnagar, Habra II, Amdanga, Barasat II, Baduria, Basirhat I, Basirhat II, Haroa, Rajarhat, Minakhan, Sandeshkhali II, Hasnabad and Hingaljanj.

Source :District Statistical Hand Book, North 24 Parganas, 2006

There are 34 professional and technical schools/colleges in the district. The number of students enrolled in these institutions is 5992. The number of teachers/instructors in these institutions is 784. Most of these institutes are located in the urban part of the district. More specifically, the professional/technical institutions are located in 10 municipalities and 7 rural centers. There are 12 such institutions in Bidhannagar Municipality alone. 4 such institutions are situated under Khardaha Municipality. Among the non-metro municipalities one should mention Habra and Ashoknagar Kalyangarh which have 4 such institutions. The number of teachers/instructors in these urban institutes is 705. The PTR is 7.15. However, one should point out that the PTR in such institutes usually remain low because the trainings here require larger number of faculties for the students compared to what is needed in general colleges.

In rural North 24 Parganas, there are 7 such institutions. 948 students were enrolled in these institutions in 2005. The number of teachers/instructors was 79. Most of these institutions offer vocational training. The ITI in Berachanpa (Deganga) is the biggest among these institutes. The students enrolled in this institution were 393 in 2005. The number of instructors was 23 and the PTR was 17.09. In Habra I, there are 2 such institutions imparting training to 150 students. There are also 2 institutions under Barrackpur I block in which there were 251 students and 27 instructors. The training need is increasing on rural North 24 Parganas. The rate at which the training facilities are developing remains rather poor. The private service providers are also entering in this market. But such services are usually available in urban part of the district.

7.6 The Other Facilities

Outside formal education the citizens need the facilities for libraries, free reading rooms and mass literacy centers (for the under privileged). There are 224 public libraries with equal numbers of free reading rooms in the district. Some of these public libraries are very old and many of them are situated in the municipalities of urban North 24 Parganas. During last 30 years however, special emphasis has been given on developing public libraries in rural areas. As the data indicate that there are now 92 public libraries in the rural areas of the district. The number of such public libraries is as high as 7 in Habra I and Basirhat II block. In Habra II, Bongaon, Swarupnagar and Baduria there are 6 such public libraries in each of these blocks. Even in the backward block such as Hingalganj, there are 4 public libraries. In Haroa also there are 4 public libraries. All these public libraries have free reading rooms.

Table 7.6.1: Number of Public Libraries, Reading Rooms and Mass Literacy Centers in Rural North 24 Parganas

Name of the Block	Public Library	Free reading room	Mass Literacy Centre
Bagdah	4	4	81
Bongaon	6	6	144
Gaighata	5	5	117
Swarupnagar	6	6	90
Habra - I	7	7	67
Habra - II	6	6	72
Amdanga	4	4	72
Barrackpore - I	4	4	84
Barrackpore - II	2	2	53
Barasat - I	3	3	81
Barasat - II	-	-	63
Deganga	4	4	117
Baduria	6	6	126
Basirhat - I	5	5	63
Basirhat - II	7	7	81
Haroa	4	4	72
Rajarhat	2	2	63
Minakhan	3	3	72
Sandeshkhali - I	3	3	72

Table 7.6.1: Contd.

Name of the Block	Public Library	Free reading room	Mass Literacy Centre
Sandeshkhali - II	4	4	72
Hasnabad	3	3	81
Hingalganj	4	4	81
Total (Rural)	92	92	1824
Total (Urban)	132	132	346
District	224	224	2170

Source: District Statistical Hand Book, North 24 Parganas, 2006

There are 2170 mass literacy centers in the district. 84.06 percent of these mass literacy centers are located in the rural part of the district. Highest number of such centers is in Bongaon (144). Followed by Baduria (126), Gaighata (117) and Deganga (117). The lowest number of literacy centers is in Barrackpur II. There are 53 such centers in this block. The number of mass literacy centers is also very low (63) in Basirhat I and Rajarhat. These literacy centers are supposed to provide the infrastructure for continued education with respect to the neo-literates. Some of the centers are running well and some are not.

CHAPTER - 8

Chapter 8

VULNERABILITY

8.1 Introduction

Even the strongest critique would admit that, the livelihood situation in the district has improved over time. This is largely due to the widening of the livelihood opportunities in the district. Ingenuity of the toiling people, who are capable of utilizing every opportunity for betterment of the condition of living, is of course the basic reason for this improvement. One should also mention that the intervention by the state in the post independence period for improving the condition of living of the common people has also facilitated this process.

Be that as it may, the fact remains that the gains of development have not been distributed uniformly over all sections of the society. There still exists economic and social inequality. Many people in urban and rural North 24 Parganas still live in hunger. Again, there are people who remain vulnerable to natural calamities. In many areas of the district people live under the threat of arsenic contamination. In many Border Area villages, people live under the condition of general insecurity. Violence against women is not a rare crime in this district. Many people in this district live under the threat of HIV AIDS. These livelihood insecurity issues will be discussed in this Chapter of the District Human Development Report.

8.2 Hunger and Migration

Food Scarcity

Although the agricultural productivity in this district is quite impressive and North 24 Parganas is the district which produces 217.86 kg of cereal per rural population, 81.84 percent of the households in rural North 24 Parganas still suffer from shortage of food (Table 8.2.2). There are 307026 families in rural part of the district who live below the poverty line (Table 8.2.1). There exists wide inter block variation with respect to existence of BPL households in the villages of rural North 24 Parganas. The highest percentage (59.70) of BPL households was observed in Sandeshkhali II. In the adjacent block Sandeshkhali I, the percentage of BPL families was as high as 58.29. Again the least number of households that were below the poverty line was seen in Barrackpur I. The percentage of such households in Barrackpur I was 8.63. It seems that the situation in Barrackpur I, with respect to the number of BPL households living under hunger and poverty was not that severe. Again there were blocks like Amdanga, Haroa, Basirhat I and Habra I, where the percentage of BPL households was 33.05, 33.73, 34.78 and 34.81 respectively. In the backward block Hingaljanj, a high percentage of families were living under incessant hunger and poverty. The percentage of such BPL families in Hingaljanj was 44.50. 7640 BPL households lived in the rural block, Deganga (Table 8.2.1). Thus in rural North 24 Parganas, there is still a high percentage of people living in hunger and poverty. Availability of food among the people, particularly among the BPL households, living in the blocks is a severe problem.

Table 8.2.1: Block wise Distribution of BPL Household

Name of the Block	Number of Household	BPL Household	Percentage of BPL Household
Amdanga	45025	14882	33.05
Baduria	61621	25105	40.74
Bagdah	49566	7219	14.56

Table 8.2.1: Contd.

Name of the Block	Number of Household	BPL Household	Percentage of BPL Household
Barasat I	53592	9891	18.46
Barasat II	50021	11563	23.12
Barrackpore I	29926	2584	8.63
Barrackpore II	42997	12949	30.12
Basirhat I	41345	14381	34.78
Basirhat II	41567	7318	17.61
Bongaon	95584	26476	27.70
Deganga	53468	7640	14.29
Gaighata	81779	18570	22.71
Habra I	50192	17474	34.81
Habra II	35374	11231	31.75
Haroa	42227	14244	33.73
Hasnabad	41234	11829	28.69
Hingalganj	40706	18114	44.50
Minakhan	36355	13966	38.42
Rajarhat	32573	7363	22.60
Sandeshkhali I	33063	19271	58.29
Sandeshkhali II	32042	19128	59.70
Swarupnagar	58162	15828	27.21
Total	1048419	307026	29.28

Source: RHS 2007, North 24 Parganas

The depth of the problem of food poverty cannot be assessed unless one gathers the information on food security with respect to the surveyed households. The RHS however, provide such information as well. The number of households who suffer from food scarcity, i.e., the households with shortage of food constitute 81.84 percent of the rural households of the district, according to RHS 2007. 4.56 percent of the households can manage less than one square meal a day during the major part of a year. The percentage of such households is disquietingly high in Sandeshkhali I block (16.96 percent). 15.36 percent of the households of the district can generally manage one square meal a day but sometimes fails. The percentage of such households is very high in Sandeshkhali I and Sandeshkhali II (27.43 and 20.29 respectively). The percentage is as high as 27.11 in Habra II block. RHS 2007 also reports that 31.47 percent of the households generally manage two square meals a day but sometimes fail and 30.46 percent of the households can manage at least two square meals during all seasons. However, only a small percentage (18.16) reported that there is no shortage of food in these families. Predictably the percentage of such families is very high in the blocks adjacent to KMA. The families who do not suffer from food shortage constitute only 8.10 percent of the households in Sandeshkhali I. The percentage also remains very low in Minakhan, Haroa and Hingalganj blocks. Ensuring food security is still a very big challenge for the district.

Table 8.2.2 : Block wise percentage distribution of households with respect to Food Security

Block Name	1*	2*	3*	4*	5*	Total
Amdanga	8.01	17.25	29.12	30.82	14.80	100.00
Baduria	6.46	19.08	30.52	26.96	16.98	100.00
Bagdah	1.83	8.35	29.21	39.33	21.28	100.00
Barasat-I	2.37	14.91	31.63	31.59	19.50	100.00
Barasat-II	1.49	14.26	37.69	34.32	12.23	100.00
Barrackpore-I	1.75	8.58	25.40	28.84	35.42	100.00
Barrackpore-II	1.19	7.78	22.55	28.98	39.50	100.00
Basirhat-I	5.35	17.11	33.46	30.42	13.67	100.00
Basirhat-II	8.25	16.78	29.76	27.61	17.61	100.00
Bongaon	3.21	14.23	33.66	30.62	18.28	100.00
Deganga	3.12	13.29	31.47	32.16	19.96	100.00
Gaighata	3.03	9.11	32.48	34.92	20.47	100.00
Habra-I	5.02	22.78	32.56	23.75	15.89	100.00
Habra-II	7.07	27.11	29.49	18.44	17.89	100.00
Haroa	5.00	17.68	33.77	29.02	14.54	100.00
Hasnabad	2.81	16.01	30.39	35.46	15.34	100.00
Hingalgunj	2.95	14.85	32.24	35.02	14.94	100.00
Minakhan	6.31	17.18	30.55	33.56	12.41	100.00
Rajarhat	5.77	13.56	23.07	34.18	23.42	100.00
Sandeshkhali-I	16.96	27.43	29.54	17.97	8.10	100.00
Sandeshkhali-II	6.54	20.29	41.56	22.80	8.81	100.00
Swarupnagar	3.61	11.98	34.95	32.00	17.45	100.00
Total :	4.56	15.36	31.47	30.46	18.16	100.00

Source: RHS 2007, North 24 Parganas

*Food Security

1.Can manage less than 1 square meal a day during the major part of a year, 2.Can generally manage 1 square meal a day but sometimes fails, 3.Can generally manage 2 square meals a day but sometimes fails, 4.Can manage at least 2 square meals during all seasons, 5. No shortage of food security.

The baseline study conducted by ORG MARG also provides some information in this regard. 1500 households from rural North 24 Parganas were covered in this survey. The households were asked whether they get two square meal per day during the whole of the year. 32.8 percent of the households reported that they were not fortunate enough to get regular meals during the whole year. The incidence of hunger was higher in the riverine area which was closely followed by the BA (Border Area). The scenario was somewhat better in ORA (Other Rural Area), where the percentage of such people who do not get regular meal during the whole year was 29. (Table 8.2.2.1)

Table 8.2.2.1: Extent of Food Scarcity in Surveyed households in Rural North 24 Parganas

Get two square meal per day whole year	Riverine area		Border Area		Other Rural area		Total	
	N	%	N	%	N	%	N	%
Yes	323	65	331	66	354	71	1008	67.2
No	177	35	169	34	146	29	492	32.8
Total	500	100	500	100	500	100	1500	100

Source: Baseline Survey 2008, ORG- MARG

N—Number

The depth of food poverty is revealed by the information furnished in Table 8.2.3. Out of 492 families which do not get regular meal during the whole year, 212 families suffer from such misfortune for two months. 33.94 percent of the families live without regular

Table 8.2.3: Number of Months of Food Scarcity in Rural North 24 Parganas

Number of Months faces food scarcity	Riverine area		Border Area		Other Rural area		Total	
	N	%	N	%	N	%	N	%
1	12	6.8	9	5.3	11	7.5	32	6.50
2	87	49	75	44	50	34	212	43.09
3	56	32	56	33	55	38	167	33.94
4	14	7.9	21	12	23	16	58	11.79
5	4	2.3	5	3	3	2.1	12	2.44
6	4	2.3	1	0.6	2	1.4	7	1.42
9	0	0	0	0	1	0.7	1	0.20
12	0	0	2	1.2	1	0.7	3	0.61
Total	177	100	169	100	146	100	492	100.00

Source: Baseline Survey 2008, ORG- MARG

N—Number

meal for three out of 12 months in a year. Only 6.5 percent suffer from food poverty for just one month. There are however, more than 16 percent families who do not get regular meal for more than 4 months a year. The scenario appears to be the worst in the BA. In the riverine area, out of 177 families suffering from food scarcity there are 78 families who do not get regular meal for 3 months or more a year. The number of such families in BA is 85. There are 2 families in BA who live in perpetual hunger during the whole year. One such family was also found in ORA.

The problem of poverty seems to be less severe in the municipalities of the district. The UHS, 2006 which covered 25 out of 27 municipalities of the district provides the relevant information. 947992 households were covered in 25 municipalities of the district in UHS 2006. It was observed that 14.19 percent of the households were living below the poverty line. Inter municipality wise variation was wide in this respect. In Baduria municipality, the percentage of households living below the poverty line was 59.81. In Gobordanga municipality 47.88 percent of 10973 surveyed households were placed below the poverty

line. In Taki, the percentage was 37.35 (Table 8.2.4). In Basirhat, Bongaon and Habra, percentages of BPL families among the surveyed households were 35.92, 37.45 and 28.84 respectively. In other municipalities the percentage of BPL families had been much lower. In New Barrackpur only 5.6 percent of the families were living under poverty, according to UHS, 2006. In South Dum Dum, the percentage was still lower (3.96). Even in Titagarh which covers the largest slum of the district, the percentage of BPL families was only 5.41. In some parts of the municipalities adjacent to the metro city of Kolkata, the incidence of poverty was high. In Garulia Municipality 15382 households were surveyed. 3288 of these families were reportedly living in poverty. In Kanchrapara the percentage of BPL families among the surveyed households was 17.93. In Naihati, it was still higher (20.28 percent).

Table 8.2.4: Municipality wise Distribution of BPL Household

Name of Municipality	Total Households Surveyed	BPL Households	Percentage of BPL Households
Ashok Nagar- Kalayangarh	24257	3281	13.53
Baduria	11029	6596	59.81
Baranagar	63701	2631	4.13
Barasat	58231	5808	9.97
Barrackpore	31411	3093	9.85
Basirhat	29762	10690	35.92
Bhatpara	76618	14100	18.40
Bidhannagar	46216	4066	8.80
Bongaon	24637	9227	37.45
DumDum	19897	925	4.65
Garulia	15382	3288	21.38
Gobardanga	10973	5254	47.88
Habra	27752	8005	28.84
Halisahar	26087	3781	14.49
Kamarhati	46555	6672	14.33
Kanchrapara	22452	4026	17.93
Khardah	17649	1230	6.97
Madhyamgram	35779	5106	14.27
Naihati	26316	5337	20.28
New Barrackpore	18065	986	5.46
North Barrackpore	27178	3191	11.74
North Dum Dum	49343	6038	12.24
Panihati	68366	4116	6.02
Rajarhat Gopalpur	60761	9421	15.51
South Dum Dum	76153	3018	3.96
Taki	8862	3310	37.35
Titagarh	24560	1329	5.41
Total	947992	134525	14.19

The list of Barasat and Ashokenagar Kalyangarh is in draft form.

Source: UHS 2006, North 24 Parganas

The depth of poverty was looked into in the baseline survey conducted by ORG MARG. The survey covered 1100 households from 44 UFS blocks of the district. 600 of these households were from 24 non-slum UFS blocks. The percentage of families that reported that they did not get two square meals a day for the entire year was only 5.2. Contrary to what is normally believed, the percentage of such households was still lower in slum UFS blocks (4.2 percent). Out of 1100 families, only 52 households reported that they were suffering from food scarcity (Table 8.2.5).

The depth of food scarcity was low in both non-slum and slum UFS blocks. Out of 31 families in non-slum areas who did not get regular meals, 16 families reported that the

Table 8.2.5: Extent of Food Scarcity in Surveyed households in Urban North 24 Parganas

Get two square meal per day whole year	Non slum area		Slum area		Total	
	N	%	N	%	N	%
Yes	569	95	479	96	1048	95.27
No	31	5.2	21	4.2	52	4.73
Total	600	100	500	100	1100	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

problem did exist only for two months. There were 10 families which faced such a situation for three months in a year. There was only one family that had the misfortune of not getting any regular meal for four months in a year. Non-availability of regular meal for 9 months in a year was reported with respect to one family in the sample. In the slum area the problem remained severe for only two months with respect to 17 out of 21 families. There was one family that suffered from food scarcity during only one month in a year. For two families the problem was for 3 months (Table 8.2.6). There was however, one family that remained in hunger during all 12 months in a year.

Table 8.2.6: Number of Months of Food Scarcity in Urban North 24 Parganas

Number of Months faces food scarcity	Nonslum area		Slum area		Total	
	N	%	N	%	N	%
1	3	9.7	1	4.8	4	7.69
2	16	52	17	81	33	63.46
3	10	32	2	9.5	12	23.08
4	1	3.2	0	0	1	1.92
5	0	0	0	0	0	0.00
6	0	0	0	0	0	0.00
9	1	3.2	0	0	1	1.92
12	0	0	1	4.8	1	1.92
Total	31	100	21	100	52	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

Special Vulnerability

The RHS 2007 also collected household level information on special vulnerability. The information was collected under five different categories. In category 1, such households were recorded in which there is at least one person who is permanently disabled and does not get any social or government assistance. Such cases were reported in 3.52 percent of the families in rural North 24 Parganas. As Table 8.2.7 suggests, the percentage of such families is as high as 6.64 in Sandeshkhali I. In Habra II, 5.16 percent of the families reported to have at least one such specially vulnerable member. In Minakhan, the relevant percentage was 6.08. The percentage was also very high in Baduria (5.74).

In category 2 the households with aged members who need social assistance but do not get any such assistance were recorded. 3.45 percent of the families in rural North 24 Parganas live with such a problem of vulnerability. The block level data indicate that the percentage of such families was very high in Baduria. In Baduria, 10.06 percent of the households did have at least one such member in the family. The percentage was also very high in Sandeshkhali I (8.61) and Minakhan (6.02). Such cases were reported only with respect to 0.91 percent of the families in Bagdah.

Families headed by women members account for 2.38 percent of the rural households in North 24 Parganas. The percentage of such families had been 3.51 in Amdanga and 3.80 in Sandeshkhali I. The percentage was still higher in Bongaon block where 3.76 percent of the families were been headed by the women members. The comparable percentage in Baduria was 3.42. The percentage of such families was however very low in (0.84) in Bagdah and Deganga (0.55). One may however mention that in Barrackpore II and Rajarhat, two KMA adjacent blocks of the district, the incidence of women headed families are quite high. In Barrackpore II, 2.66 percent of the families have such kind of vulnerability. In Rajarhat block the percentage of such families is 2.27.

Economic vulnerability due to the obligation to bear the cost of treatment of the family members from incurable diseases is also considered as a special kind of vulnerability. RHS 2007 captured the incidence of such kind of vulnerability, if any, with respect to the surveyed households (category 4). In rural North 24 Parganas, 4.9 percent of the households were exposed to this kind of vulnerability. The percentage was as high as 9.03 in Hingalganj. In Sandeshkhali I, 8.47 percent of the families suffered from such a problem. In Sandeshkhali II, 6.60 percent of the families reported that the expenses of the family were more than family income due to the obligation to bear the medical expenses for such family members who were suffering from incurable diseases. In Amdanga, the percentage of such families was as high as 5.93.

Table 8.2.7: Block wise percentage distribution of households with respect to Special Vulnerability

Block Name	1*	2*	3*	4*	5*	Total
Barrackpore-I	1.03	1.75	1.61	2.36	93.25	100.00
Barrackpore-II	3.32	1.88	2.66	3.68	88.46	100.00
Amdanga	4.45	4.09	3.51	5.93	82.02	100.00
Barasat-I	1.66	1.27	1.54	2.76	92.76	100.00
Barasat-II	2.27	1.81	1.82	3.37	90.74	100.00
Deganga	1.60	1.01	0.55	2.18	94.65	100.00
Habra-I	4.46	2.61	3.26	4.87	84.80	100.00
Habra-II	5.16	3.45	1.80	5.93	83.67	100.00

Table 8.2.7: Contd.

Block Name	1*	2*	3*	4*	5*	Total
Rajarhat	4.17	5.90	2.27	2.64	85.02	100.00
Baduria	5.74	10.06	3.42	4.54	76.24	100.00
Basirhat-I	2.62	3.06	2.89	5.45	85.98	100.00
Basirhat-II	3.50	4.63	2.55	5.78	83.54	100.00
Haroa	2.46	3.67	1.92	4.59	87.36	100.00
Hasnabad	3.62	2.92	1.61	3.86	88.00	100.00
Hingalganj	4.32	2.68	1.86	9.03	82.11	100.00
Minakhan	6.08	6.02	2.55	3.37	81.99	100.00
Sandeshkhali-I	6.64	8.61	3.80	8.47	72.47	100.00
Sandeshkhali-II	4.58	3.94	2.30	6.60	82.59	100.00
Swarupnagar	2.22	2.78	1.97	3.57	89.47	100.00
Bagdah	2.49	0.91	0.84	1.41	94.35	100.00
Bongaon	3.81	2.66	3.76	4.91	84.87	100.00
Gaighata	3.02	2.87	2.62	3.88	87.61	100.00
Total :	3.52	3.45	2.38	4.39	86.26	100.00

Source: RHS 2007, North 24 Parganas

* Special vulnerability

- 1: Permanently disabled and without any social or Government assistance
- 2: Aged without assistance
- 3: Women head of the family
- 4: Expenses more than family income due to treatment of the family members from an incurable disease
- 5: None of the above

Coping Mechanism: NOAPS, AAY , AY and NREGS

The older people in the BPL families are supposed to get the state support under National Old Age Pension Scheme (NOAPS). In rural North 24 Parganas, the number of NOAPS beneficiaries is 13619. Had there been one NOAPS beneficiary in each of the BPL families the number should have been 307026 (Table 8.2.7.1). We do not have the necessary data on the number of old people in the BPL families of the district. The gap between the need and the provision created by the state cannot therefore be estimated. As one knows, the state is yet to take up a programme at covering every old person in the BPL family under the NOAPS. There is a state quota and a quota for the district. What we can report is that the district quota for NOAPS has been covered by the district authority. The percentage of NOAPS beneficiary with reference to the number of BPL families in the rural part of the district is 4.44. The percentage is 17.80 in Barrackpur I and 11.94 in Deganga. In Sandeshkhali I and in Sandeshkhali II, two very backward blocks of the district, the percentage of NOAPS beneficiaries is only 2.28. The percentages are also low in Minakhan and Hingalganj, two other backward blocks of the district.

Table 8.2.7.1: NOAPS Beneficiaries in the Blocks of North 24 Parganas

Name of the Blocks	Beneficiaries (Blocks)	No of BPL Families	Percentage of NOAPS Beneficiaries out of BPL Families
Amdanga	538	14882	3.62
Baduria	773	25105	3.08
Bagdah	677	7318	9.25
Barasat-I	713	9891	7.21
Barasat-II	501	11563	4.33
Barrackpore-I	1460	2584	17.80
Barrackpore-II	438	7219	6.07
Basirhat-I	467	12949	3.61
Basirhat-II	599	14381	4.17
Bongaon	1105	26476	4.17
Deganga	912	7640	11.94
Gaighata	938	18570	5.05
Habra-I	584	17474	3.34
Habra-II	529	11231	4.71
Haroa	588	14244	4.13
Hasnabad	613	11829	5.18
Hingalganj	585	18114	3.23
Minakhan	528	13966	3.78
Rajarhat	422	7363	5.73
Sandeshkhali-I	440	19271	2.28
Sandeshkhali-II	437	19128	2.28
Swarupnagar	772	15828	4.88
Total	13619	307026	4.44

Source: District office North 24 Parganas, 2007

The number of NOAPS beneficiaries in urban North 24 Parganas, is higher than that in rural part of the district. In 2007, the number of NOAPS beneficiaries in urban North 24 Parganas was 14240 (it was 13619 in rural North 24 Parganas)

Since the incidence of poverty is lower in urban North 24 Parganas, the number of NOAPS beneficiaries as percentage to BPL households is also quite high here (10.59 percent). In some of the municipalities where the incidence of poverty is very low, the percentage of NOAPS beneficiaries is found to be quite high. Thus in Baranagar Municipality where the number of BPL households is only 2631, the number of old people covered under NOAPS is 854 (32.46 percent). In Dum Dum Municipality, the number of BPL households was only 925 (Table 8.2.8). The number of NOAPS beneficiaries was 311 there. It seems there the issue of identifying the beneficiaries under NOAPS shall have to be given a fresh look, at least in urban North 24 Parganas.

Table 8.2.8: NOAPS Beneficiaries in the Municipalities of North 24 Parganas

Name of the Municipalities	Beneficiaries (Municipalities)	BPL Households	Percentage of NOAPS Beneficiaries out of BPL Families
Ashokenagar Kalyangarh	376	3281	11.46
Baduria	140	6596	2.12
Baranagar	854	2631	32.46
Barasat	821	5808	14.14
Barrackpore	480	3093	15.52
Basirhat	378	10690	3.54
Bhatpara	1399	14100	9.92
Bidhannagar	486	4066	11.95
Bongaon	211	9227	2.29
Dum Dum	311	925	33.62
Garulia	292	3288	8.88
Gobardanga	126	5254	2.40
Habra	306	8005	3.82
Halisahar	381	3781	10.08
Kamarhati	1139	6672	17.07
Kanchrapara	333	4026	8.27
Khardah	323	1230	26.26
Madhyamgram	405	5106	7.93
Naihati	662	5337	12.40
New Barrackpore	251	986	25.46
North Barrackpore	357	3191	11.19
North Dum Dum	741	6038	12.27
Panihati	1134	4116	27.55
Rajarhat Gopalpur	591	9421	6.27
South Dumdum	1190	3018	39.43
Taki	116	3310	3.50
Titagarh	437	1329	32.88
Total	14240	134525	10.59

Source: District office North 24 Parganas, 2007

The food security is supposed to be met by state run Antyodaya Anna Yojana (AAY) (Pink Card) and Annapurna Yojana (AY). For the aged people in BPL families sufficient food is supposed to be made available under AY (10 kgs of food grains per month free of cost). For the poorest of the poor, i.e., the families which suffer from severe poverty (Monthly Per Capita Consumption Expenditure is Rs. 274.35 or below) the state

is supposed to provide 35 kgs of food grains per month per family at a subsidised price under AAY. Let us consider first the status of AAY in rural North 24 Parganas.

Table 8.2.9: Status of AAY in Rural North 24 Parganas

Name of the Block	No of BPL Families	AAY Target (Family)	Percentage of Target Families out of BPL Families	Benefited Families	Benefited Families out of BPL Families	AAY Beneficiaries
Amdanga	14882	2602	17.48	2592	17.42	10609
Baduria	25105	4086	16.28	4076	16.24	18215
Bagdah	7318	3921	53.58	3914	53.48	18050
Barasat-I	9891	5438	54.98	5429	54.89	23349
Barasat-II	11563	3547	30.68	3523	30.47	15940
Barrackpore-I	2584	4016	155.42*	3505	135.64*	16821
Barrackpore-II	7219	1965	27.22	1833	25.39	8317
Basirhat-I	12949	3128	24.16	3111	24.03	12766
Basirhat-II	14381	3606	25.07	3604	25.06	14743
Bongaon	26476	5863	22.14	5863	22.14	25829
Deganga	7640	4020	52.62	4005	52.42	15890
Gaighata	18570	5036	27.12	4833	26.03	21769
Habra-I	17474	5908	33.81	5869	33.59	26013
Habra-II	11231	4492	40.00	4492	40.00	19750
Haroa	14244	2166	15.21	2166	15.21	9248
Hasnabad	11829	3128	26.44	3124	26.41	12656
Hingalganj	18114	2405	13.28	2387	13.18	9312
Minakhan	13966	2166	15.51	2166	15.51	9193
Rajarhat	7363	2369	32.17	2369	32.17	11221
Sandeshkhali-I	19271	2405	12.48	2405	12.48	10794
Sandeshkhali-II	19128	2405	12.57	2405	12.57	10655
Swarupnagar	15828	3367	21.27	3348	21.15	15882
Total	307026	78039	25.42	77019	25.09	337022

Source: Food Supplies Department, North 24 Parganas, 2007

*Percentage is more than hundred percent because it includes beneficiaries of previous years also.

According to Food Supplies Department, North 24 Parganas, the number of BPL families benefited from AAY was 77019 in rural North 24 Parganas. The number of BPL families being 307026, 25.09 percent of the BPL families were benefited from AAY in 2007. The identified number of families that could be entitled for AAY was 78039. One thus observes that most of the entitled families could be covered under this scheme. In some of the blocks the coverage was 100 percent. In Haroa, for example, the number of entitled families was 2166, all of these families were provided with AAY benefits. In Rajarhat, all the 2369 families

have been issued ration cards under AAY. The coverage had been 100 percent in Sandeshkhali I, Sandeshkhali II, Bongaon and Habra II (Table 8.2.9). In other blocks, the coverage was lower. But in no block the number of benefited families was less than 90 percent of the identified families. There are now 337022 beneficiaries under AAY in the district. If the hunger still persists the reason might be that the target was fixed at a lower level.

Table 8.2.10: Status of AY in Rural North 24 Parganas

Name of the Block	No of BPL Families	Targeted Number of Beneficiaries	Present Number of Beneficiaries	Percentage of Targeted Number Achieved	Beneficiaries Per Thousand BPL families
Amdanga	14882	348	334	95.98	22
Baduria	25105	482	452	93.78	18
Bagdah	7318	417	297	71.22	41
Barasat-I	9891	450	437	97.11	44
Barasat-II	11563	327	276	84.40	24
Barrackpore-I	2584	345	329	95.36	127
Barrackpore-II	7219	288	282	97.92	39
Basirhat-I	12949	291	290	99.66	22
Basirhat-II	14381	323	323	100.00	22
Bongaon	26476	699	603	86.27	23
Deganga	7640	549	525	95.63	69
Gaighata	18570	647	559	86.40	30
H a r o a	17474	354	351	99.15	20
Habra-I	11231	376	374	99.47	33
Habra-II	14244	315	315	100.00	22
Hasnabad	11829	379	372	98.15	31
Hingaljanj	18114	375	274	73.07	15
Minakhan	13966	284	284	100.00	20
Rajarhat	7363	297	275	92.59	37
Sandeshkhali-I	19271	230	230	100.00	12
Sandeshkhali-II	19128	309	309	100.00	16
Swarupnagar	15828	479	479	100.00	30
Total	307026	8564	7970	93.06	26

Source: Food Supplies Department, North 24 Parganas, 2007

For the older people (65 years plus) not covered by NOAPS, there is a provision of food support under AY. In rural North 24 Parganas, the district quota is 8564 under this scheme. At present, there are 7970 beneficiaries under AY. The district has covered 93.06 percent of the targeted number of beneficiaries. In Basirhat II and Habra II as well as in Minakhan, Sandeshkhali I, Sandeshkhali II and Swarupnagar, 100 percent of the targeted beneficiaries are being identified and brought under this scheme. The achievement

is poor in Hingalganj where the quota is 375 and the existing number of beneficiaries is 274. In Bagdah, the percentage of achievements is 71.22. In many of the blocks however, the extent of success in this regard is more than 90 percent. The beneficiaries per thousand BPL families are 26, on an average. In Barrackpur I however, the number per thousand is very high (127). In Deganga, there are 69 AY beneficiaries per thousand BPL families. In many of the blocks however, the number is quite low. In Sandeshkhali I, there are 12 AY beneficiaries per thousand BPL families. In Hingalganj, the number is 15 per thousand and in Sandeshkhali II, the number of AY beneficiaries per thousand BPL families is only 16. (Table 8.2.10)

Lack of employment being the basic reason for food poverty, the Government of India, has introduced a right based programme on employment under NREGA, 2005. North 24 Parganas was included in this programme in 2007. We discuss the progress of NREGA related activities in the district in Chapter 9 of this human development report.

Coping Mechanism: The Credit Economy

The state sponsored intervention programme for providing food security appears to be inadequate. In spite of NOAPS, AAY, AY and NREGS, many of the households in the district live in hunger. The RHS 2007 which enquired about the status of food security brings this point in sharp focus. There are many households which live in the margin and do not get any support from the state. The RHS 2007 also reports that many of the households in the district do not have any safety-net in terms of past savings. In case of exigencies, there are to depend on credit which they try to procure usually from informal credit market. We shall place the relevant information in this regard in this section of the Chapter.

Table 8.2.11 prepared from the relevant RHS 2007 data of North 24 Parganas indicate that about 46 percent of the families remain indebted because they cannot meet their economic needs from own savings. 25.61 percent of the households reported to meet their every day needs by taking loans from familiar persons (friends and relatives). 8.87 percent took loans from familiar persons for meeting production related needs. Loans from unrecognized agencies for meeting particular needs were reportedly taken by 4.88 percent of the families. 6.48 percent of the families in rural North 24 Parganas reported that they have taken loans from recognized (including institutional) agencies.

Loans from familiar persons for meeting every day needs account for a large part of transactions in informal credit market of the economy. RHS did not collect information on the collaterals involved in such transactions; information on the rate of interest in the informal credit market was not also collected by RHS. Such information had been collected on the basis of a sample survey conducted by ORG MARG under the aegis of the district authority. We shall presently report the findings of this survey. But before this, let us examine the block specific findings of the RHS survey.

For meeting the every day needs, 25.65 percent of the families in rural North 24 Parganas take loans from friends and relatives. In Sandeshkhali II where the percentage of BPL families is as high as 59.70, the percentage of such households is 41.71. In Hingalganj 34.73 percent of the rural households need such consumption loans. In Baduria, the relevant percentage is 35.09 and in Habra I the comparable percentage is 37.25. Only in Barrackpore I, the percentage of families seeking consumption loans from friends and relatives was low. Even then, the percentage there was 9.92. No wonder that informal credit market where loan is available without collateral is quite powerful in most of the blocks of North 24 Parganas. Informal credit market also has a powerful presence in production related requirements of loan. In Sandeshkhali 21.01 percent of the households mobilized credit from informal sources for meeting the production needs. In Sandeshkhali II the relevant percentage is 16.14. In Bongaon, Minakhan and Hingalganj the percentage of such families had been 10.7, 13.03 and 13.27 respectively. The formal credit market where the recognized agencies operate covers only a tiny percentage of households in rural North 24 Parganas.

Table 8.2.11: Block wise percentage distribution of Households according to Indebtedness

Block	1*	2*	3*	4*	5*	Total
Barrackpore-I	9.92	3.29	2.92	6.29	77.58	100.00
Barrackpore-II	24.53	2.88	3.43	3.35	65.81	100.00
Amdanga	30.22	10.09	5.36	5.97	48.37	100.00
Barasat-I	20.97	3.58	2.89	4.80	67.76	100.00
Barasat-II	26.03	8.68	2.66	3.94	58.70	100.00
Deganga	15.60	4.99	2.82	7.11	69.48	100.00
Habra-I	37.25	7.94	6.17	5.37	43.26	100.00
Habra-II	25.90	6.69	5.96	9.49	51.96	100.00
Rajarhat	20.63	7.68	2.80	2.68	66.21	100.00
Baduria	35.09	10.10	6.35	7.71	40.76	100.00
Basirhat-I	26.19	9.09	2.98	4.61	57.13	100.00
Basirhat-II	26.60	9.86	4.49	6.58	52.47	100.00
Haroa	25.25	12.17	4.80	5.28	52.50	100.00
Hasnabad	24.13	7.58	6.27	6.56	55.46	100.00
Hingalganj	34.73	13.27	6.81	9.36	35.83	100.00
Minakhan	24.94	13.02	2.80	5.11	54.13	100.00
Sandeshkhali-I	31.51	21.01	5.07	9.48	32.93	100.00
Sandeshkhali-II	41.71	16.14	6.63	7.18	28.34	100.00
Swarupnagar	26.43	8.73	4.53	8.63	51.67	100.00
Bagdah	18.70	6.13	4.56	8.24	62.37	100.00
Bongaon	23.59	10.70	6.70	5.65	53.36	100.00
Gaighata	19.81	6.84	6.60	8.19	58.56	100.00
Total :	25.61	8.87	4.88	6.48	54.15	100.00

Source: RHS 2007, North 24 Parganas

* Indebtedness

1. Loans from Familiar persons for everyday needs.
2. Loans from Familiar persons for production needs.
3. Loans from an agency for some particular needs.
4. Loans from a recognized agency.
5. No Loan.

In order to gather further information on the credit market of North 24 Parganas we conducted a field survey which covered 2600 households. We shall now present the findings of this field survey. The survey first enquired about the savings pattern of the households. Subsequently, the credit market situation was probed in.

Table 8.2.12: Savings Pattern of the Surveyed Households in the District

Household Status on Savings	Riverine area		Border Area		Other Rural area		Non slum area		Slum area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	258	51.6	273	54.6	242	48.4	335	56	159	31.8	1267	48.73
No	242	48.4	227	45.4	258	51.6	265	44	341	68.2	1333	51.27
Total	500	100	500	100	500	100	600	100	500	100	2600	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

The baseline study enquired about income and expenditure along with savings and credit behaviour of 2600 households that were covered in this survey. In terms of per capita income and expenditure households in urban North 24 Parganas were found to be better placed compared to the households in rural North 24 Parganas. Even in slums in urban North 24 Parganas, the average per capita income was found to be higher than that in rural North 24 Parganas. The spending power was also higher in urban North 24 Parganas.

The survey however revealed that 51.27 percent of the households covered in this survey did not have enough income so that they could save a part of their earnings (comparable percentage in RHS appears to be 45.85). Out of 500 households in riverine area, 242 reported that they could not save. In BA, among the equal number of households 45.4 percent were non-savers. In ORA, the relevant percentage was 51.6 (Table 8.2.12). The percentage was lower in urban non-slum areas (44 percent). However, the percentage of households that could not save was as high as 68.2 in urban slum UFS blocks. Needless to say, many of these households are vulnerable. They try to meet the household needs in case of exigencies by taking recourse to borrowing.

Table 8.2.13: Loans Availed by the Surveyed Households in North 24 Parganas

Loan availed	Riverine area		Border Area		Other Rural area		Non slum area		Slum area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	306	61.2	335	67	278	55.6	163	27	142	28.4	1224	47.08
No	194	38.8	165	33	222	44.4	437	73	358	71.6	1376	52.92
Total	500	100	500	100	500	100	600	100	500	100	2600	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

Table 8.2.13 reports that in aggregate, the percentage of loan takers was 47.08. The aggregate, however, blurs the fact that the credit behaviour in rural North 24 Parganas was distinctly different from that in urban North 24 Parganas. In rural North 24 Parganas, the number of households entering in the credit market as loan taker was much higher than the number of households in 'no savings' group (Table 8.2.13 and Table 8.2.12). This is largely explained by the fact that many of the rural households that belonged to the group of savers are living in the margin. The volume of saving per household should be quite low for these households and the households need production (for agriculture) and consumption loan for their sustenance. The scenario is different in urban North 24 Parganas where the number of loan takers in both slum and non-slum area is lower than the number of households in 'no savings' group. It appears that in the 'no-savings' group there is a substantive number of households that can survive without falling back upon loans from the credit market.

Table 8.2.14: The Major Purpose for which Loan has been taken

Purpose	Riverine area		Border Area		Other Rural area		Nonslum area		Slum area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
To Buy food	103	34	111	33	86	31	29	18	39	27	368	30.07
To pay for education	10	3	13	4	7	3	10	6	11	8	51	4.17
Pay for health care	58	19	77	23	54	19	55	34	42	30	286	23.37
Pay for funeral	4	1	1	0	1	0	2	1	2	1	10	0.82
Pay for social event	36	12	39	12	32	12	17	10	33	23	157	12.83
Buy Agricultural input	29	9	52	16	41	15	0	0	0	0	122	9.97
To buy any productive asset	24	8	26	8	16	6	18	11	9	6	93	7.60
For any economic activity	47	15	48	14	53	19	52	32	29	20	229	18.71
Other	22	7	25	7	28	10	3	2	6	4	84	6.86
Total	306	100	335	100	278	100	163	100	142	100	1224	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

That the lack of food security plays a major role in driving the households towards credit market is highlighted in Table 8.2.14 where we record the major purpose for which the existing loan has been taken by the indebted households. It appeared that 30.07 percent of the households had to take loan to buy food. In riverine area, which is a mono-crop area, the percentage of such households was 34. In BA and ORA also, the percentage of households that needed loan for coping with food scarcity had been 33 and 31 respectively. The BA and ORA are not the mono-crop areas. We would also mention the fact that the percentage of such households is no less than 27 percent in the slums of the district. This lays bare the fact that agricultural prosperity or not, a sizeable section of the households live in hunger in both urban and rural North 24 Parganas. Besides the issue of food security, health security is the other factor that drives the vulnerable section of the population in the credit market. The percentage of such households which require loan mainly for paying health care services was 23.37 in aggregate. The percentage was higher in urban non-slums and urban slums where there exists private health care service providers and increasing number of urban households are now being driven to buy these services.

Many of the loan takers depend on informal credit market in the nearby locality. Regional Rural Banks, nationalized banks and Co-operative Societies were found to meet the credit need with respect to about 11 percent of the loan takers. The private money lenders, on the other hand, accounted for loans taken by 37.83 percent of the indebted households covered in the survey. The private money lenders are found to be the sources of credit with respect to 49 percent of the loan takers in the slums of the district. In BA also, the private money lenders served as the single most important source of credit for the rural households. 'Friends and relatives' are often found to be an important source of credit. This usually operates in a situation where the collateral security does not matter while offering the loan. The interest rate obligation often exists particularly, when the underlying loan amount is high. In North 24 Parganas, 'friends and relatives' were found to serve as the source of credit with respect to 32.76 percent of the loan takers. This is found to be the most important source of credit in ORA (40 percent of the cases). In urban non-slum and slum areas also, 'friends and relatives' serve as the single most important source of credit.

Table 8.2.15: Sources of Borrowings

Source of Borrowings	Riverine area		Border Area		Other Rural area		NonSlum Urban area		Slum area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Regional rural bank	4	1	7	2	9	3	1	1	0	0	21	1.72
Nationalised Bank	11	4	23	7	14	5	13	8	5	4	66	5.39
Co-operative Society	9	3	16	5	17	6	5	3	4	3	51	4.17
SHGs	27	9	32	10	17	6	12	7	3	2	91	7.43
Money Lenders	120	39	149	44	69	25	56	34	69	49	463	37.83
Friends/Relatives	108	35	79	24	110	40	61	37	43	30	401	32.76
Chit funds	0	0	1	0	2	1	4	2	0	0	7	0.57
Microfinance Institutions/NGO	6	2	12	4	21	8	5	3	4	3	48	3.92
Total	306	100	335	100	278	100	163	100	142	100	1224	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

The credit economy which is basically an informal economy operates mostly on the basis of trust and understanding (often social power plays a role, in case coercion becomes necessary). The market thus does not need the support of collateral security for mitigating the transactions. In the credit market of the district, most of the transactions operated without a collateral security. In case of 1224 loan takers covered in the survey, the collateral security was not asked for with respect to 1035 transactions. This is not a region specific phenomenon. In riverine area, in BA as well as in ORA, most of the transactions in rural informal credit market were found to take place without collateral security. Even in urban North 24 Parganas, where the inter personal relation is not expected to be as strong as in rural areas, the percentage of cases in which no collateral security was asked for had been very high. In urban non-slum areas 82 percent of the transactions were done without any collateral security. In slum areas the percentage was still higher (94 percent). In case of some transactions collateral securities were asked for in most of such cases, ornaments had been the collateral securities. In rural areas, land of course serves as the collateral security. But this is needed usually in case of such transactions where the underlying loan amounts are also high.

Table 8.2.16: Collateral Security for Loan in North 24 Parganas

Particular	Riverine area		Border Area		Other Rural area		Nonslum area		Slum area		Total
	N	%	N	%	N	%	N	%	N	%	N
Yes	47	15	66	20	49	18	9	6	18	13	189
No	259	85	269	80	229	82	154	94	124	87	1035
Total	306	100	335	100	278	100	163	100	142	100	1224
In Case Yes, the Collateral											
Land	21	45	35	53	22	45	2	22	1	6	81
Building	0	0	4	6	2	4	2	22	0	0	8
Ornaments	23	49	25	38	23	47	4	44	17	94	92
Others	3	6	2	3	2	4	1	11	0	0	8
Total	47	100	66	100	49	100	9	100	18	100	189

Source: Baseline Survey 2008, ORG- MARG

Although the collaterals are not demanded in most of the cases for issuing loan to the borrowers, usually the loans are not interest free unless these are taken from friends and relatives. In some cases, friends and relatives are also found to charge interest on the loan amount particularly, when the underlying amount is high. Usually the interest rate is 1 percent per month (simple). In some cases, the rates are found to be even higher. In the informal credit market, the interest rate is not found to vary from person to person. The rates are not even locality specific in most of the cases. The urban rural variation in the rate of interest rate is not also found to be noteworthy in the district.

Coping Mechanism: Migration

As the families fail to cope with the adversaries, some of them exercise the option of migrating to other places. In some cases, the entire family migrates, in many cases the earning members keep the family in the dwelling place and migrate to other areas in search of job. This kind of migration takes place due to 'push factor' and this can be rationalized in terms of a typical economic model of 'migration due to expected wage differential'. The data collected by the ORG MARG as a part of the baseline study provides evidences in favour of this observation. We shall discuss the findings presently. But before we do that we shall again consider the relevant information collected by RHS 2007. According to RHS 2007, the principal income earner of 63.79 percent of the families of the district do not have to go outside for earning the livelihood of the family. Among the migrating heads of the families more than 40 percent migrate to other places for temporary employment. A comparable percentage of the migrants leave the households for seasonal employment. A tiny percentage migrate for reasons other than income (Table 8.2.17).

Temporary employment is reported as the reason for migration with respect to 31.32 percent of the households in Sandeshkhali II. In fact in Sandeshkhali II only 30.69 percent of the families do not need the principal bread earner of the families to migrate. Migrating for temporary employment or for seasonal employment is reported in Sandeshkhali II with respect to more than 60 percent of the households in this block. In Hingalganj block such migrations are reported with respect to about 50 percent of the households. Incidence of migration either for temporary employment or for seasonal employment is also found to be very high in Minakhan, Sandeshkhali I, Baduria and Habra I. Migration for seasonal employment was reported in case of only 2.73 percent of the families in Bagdah. The percentage of principal bread earners leaving the village for seasonal employment is also found to be very low (6.27) in Bagdah. In fact, in 86.78 percent of the families in Bagdah the principal bread earners do not have to leave the village for earning livelihood for the family.

Table 8.2.17: Block wise percentage distribution of Households according to Nature of Migration

Block Name	1*	2*	3*	4*	5*	Total
Barrackpore-I	3.99	11.24	6.66	6.17	71.94	100.00
Barrackpore-II	9.42	6.53	4.47	2.97	76.60	100.00
Amdanga	24.81	10.43	4.70	2.90	57.17	100.00
Barasat-I	7.47	8.49	5.93	4.72	73.40	100.00
Barasat-II	17.86	14.70	5.43	1.90	60.11	100.00
Deganga	5.20	9.33	2.63	2.55	80.28	100.00
Habra-I	13.79	20.46	5.63	3.52	56.61	100.00
Habra-II	12.12	12.76	5.22	2.58	67.33	100.00

Table 8.2.17: Contd.

Block Name	1*	2*	3*	4*	5*	Total
Rajarhat	10.69	16.51	4.22	3.07	65.51	100.00
Baduria	27.17	13.25	4.26	2.79	52.52	100.00
Basirhat-I	13.82	13.06	5.46	2.55	65.12	100.00
Basirhat-II	15.33	14.14	6.03	5.32	59.17	100.00
Haroa	16.41	12.40	6.15	3.59	61.45	100.00
Hasnabad	11.45	13.84	6.62	2.49	65.60	100.00
Hingaljanj	26.93	23.35	6.14	2.82	40.76	100.00
Minakhan	15.00	26.31	4.20	2.57	51.92	100.00
Sandeshkhali-I	24.23	23.23	6.20	5.86	40.49	100.00
Sandeshkhali-II	31.32	29.77	6.18	2.04	30.69	100.00
Swarupnagar	9.45	12.24	4.61	2.59	71.11	100.00
Bagdah	2.73	6.27	2.89	1.33	86.78	100.00
Bongaon	10.00	13.10	6.25	2.83	67.82	100.00
Gaighata	14.59	7.08	5.50	3.04	69.78	100.00
Total :	14.28	13.63	5.21	3.09	63.79	100.00

Source: RHS 2007, North 24 Parganas

* Migration Nature

1. Temporary Employment
2. Seasonal Employment
3. Any other means of Livelihood.
4. Reasons other than Income.
5. Does not have to go out to earn.

Further details of migration related situation of the district cannot be gathered from RHS 2007. For example, one cannot get the gender and age related information of the migrants from RHS 2007. One cannot also get the information on the other migrating members from the findings of this survey. The educational background of the migrants and the places where the migrants go for earning the livelihood cannot also be ascertained from RHS 2007. We therefore decided to collect such information from a separate field survey. The survey conducted by ORG-MARG as a part of the baseline survey contained one block of questions related to these issues. The findings of this survey will now be presented.

Table 8.2.17.1: Prevalence of Migration (Household)

Prevalence of Migration	Riverine area		Border Area		Other Rural area		Nonslum area		Slum Area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	130	26	95	19	25	5	17	2.8	4	0.8	271	10.42
No	370	74	405	81	475	95	583	97	496	99	2329	89.58
Total	500	100	500	100	500	100	600	100	500	100	2600	100.00

Source: Baseline Survey 2008, ORG- MARG

Base = All respondents

N – Number

According to baseline survey 2008, in riverine area 26 percent of the 500 surveyed households reported that their family members do migrate to other places. In BA, out migration took place with respect to 19 percent of the visited families. The incidence of migration was very low in ORA as also in urban areas. This is explained largely by the fact that the 'push factor' is stronger in riverine and BA areas. The riverine area is a mono crop area where the opportunities of agriculture based employment remains low. In BA, agriculture is quite prosperous but the limits to employment in agriculture and allied agricultural activities have already been reached in many of the villages there. The newer livelihood opportunities are available mostly in urban areas (mostly in urban areas adjacent to the metro city) and the villages nearer to the metro city. This accounts for the fact that the intensity of out migration is weak in ORA and the urban part of the district.

Most of the migrations are seasonal in nature. Out of 271 families reporting out migration of the earning members, only 63 families reported that the migration was non –seasonal in nature. The seasonality in migration was reported mostly in cases of households in non-slum areas (14 out of 17 families reported seasonality in migration). However, in all of the regions, more than three fourth of the cases of out migration were reported to be seasonal in nature. It appears that the earning members migrate only when the job opportunities in the nearby areas dry up (Table 8.2.18). It was also observed that the entire family does not migrate in most of the cases. The information contained in Table 8.2.19 describes this reality.

Table 8.2.18: Seasonality in Migration in North 24 Parganas

Seasonal Migration	Riverine area		Border Area		Other Rural area		Nonslum area		Slum area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	102	78.5	73	76.8	16	64	14	82.4	3	75	208	76.75
No	28	21.5	22	23.2	9	36	3	17.6	1	25	63	23.25
Total	130	100	95	100	25	100	17	100	4	100	271	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

Table 8.2.19: The Members of the Households Migrating

Does the entire family migrate in search of work?	Riverine area		Border Area		Other Rural area		Nonslum area		Slum area	
	N	%	N	%	N	%	N	%	N	%
Yes	10	7.7	10	11	3	12	0	0	0	0
No	120	92	85	90	22	88	17	100	4	100
Total	130	100	95	100	25	100	17	100	4	100

Source: Baseline Survey 2008, ORG- MARG

N – Number

The other important point to be noted is that out migration usually involves the male members of the family. In riverine area the relevant information was available with respect to 119 households. It was reported that in case of 114 families the members migrating in search of job were male. In BA, the percentage of male migrants was 96. In OA, the percentage was 100. So also was the situation in urban non-slum and slum regions (Table 8.2.20). The women usually do not migrate. This is largely due to the fact that the job

opportunities are rather low. The cases in which the female members were found to migrate, the supplementary information that we could gather revealed that they were involved in domestic care industry in the metro city of Kolkata.

Table 8.2.20: Gender of Migrating Member of the Household

	Riverine area		Border Area		Other Rural area		Nonslum area		Slum area	
	N	%	N	%	N	%	N	%	N	%
Male	114	96	86	96	19	100	12	100	4	10
Female	5	4.2	4	4.4	0	0	0	0	0	0
Total	119	100	90	100	19	100	12	100	4	100

Source: Baseline Survey 2008, ORG- MARG

N – Number

Age-specific information was available with respect to 244 migrants. It appeared that migration takes place mostly with respect to the people in the age group 18-34 years. The minors (below 18 years of age) constitute about 9 percent of these migrants. The incidence of minors migrating in search of jobs was observed only in riverine area and in BA. 13 percent of the migrants in SA were minors (Table 8.2.21). In BA, the percentage was 8.9. People in higher age group constitute 14.59 percent of the migrants. The percentage was very high in urban non-slum (58 percent).

Table 8.2.21: Age of Migrating Household Members

Age	Riverine area		Border Area		Other Rural area		Nonslum area		Slum area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<18	16	13	8	8.9	0	0	0	0	0	0	24	9.84
18-35	76	64	61	68	15	79	5	42	3	75	160	65.57
35-60	27	23	21	23	4	21	7	58	1	25	60	24.59
Total	119	100	90	100	19	100	12	100	4	100	244	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

Most of the migrants in SA are either illiterate or had literacy at the level of elementary education. Out of 119 cases of migrants from SA for which the information was available, 26 were found to be illiterate. 10 were literate without formal schooling, 22 could not complete the primary education and there were 33 out of 119 who could complete primary education before entering the job market. The percentage of illiterate was lower in BA (14 percent) and ORA (16 percent). In BA and in ORA, a high percentage of migrants had educational attainment up to middle school (Table 8.2.22). Migrants with higher level of educational attainment had been quite small in number. In SA, the survey could find only 1 migrant out of 119 who entered in the job market after completing higher secondary. There were only 2 general graduates (in non-slum) and there was only 1 migrant who had diploma in technical education. The burden of evidence is in favour of the conclusion that most of the migrants enter in the job market as illiterate or semi-illiterate unskilled workers. They mostly remain engaged in low paid jobs in the areas in which they immigrate.

Table 8.2.22: Level of Education of Migrating Members of the Households

Education	Riverine area		Border Area		Other Rural area		Non-slum area		Slum area	
	N	%	N	%	N	%	N	%	N	%
Illiterate	26	22	13	14	3	16	2	17	2	50
Literate but without formal schooling	10	8.4	2	2.2	1	5.3	0	0	0	0
Less than primary	22	19	9	10	1	5.3	0	0	0	0
Primary school (up to 5th.)	33	28	23	26	2	11	0	0	0	0
Middle school (up to 8th)	22	19	33	37	7	37	7	58	1	25
High school /Matriculate (up to 10th)	5	4.2	9	10	4	21	0	0	1	25
Higher Secondary/ Intermediate (up to 12th)	1	0.8	0	0	1	5.3	1	8.3	0	0
Technical Education/ Diploma	0	0	1	1.1	0	0	0	0	0	0
General Graduate	0	0	0	0	0	0	2	17	0	0
Total	119	100	90	100	19	100	12	100	4	100

Source: Baseline Survey 2008, ORG- MARG

N – Number

The baseline study reveals that people mostly migrate outside district but within West Bengal. Out of 244 migrants, 131 were located outside the district but within West Bengal. The percentage of immigrants who were located within the district was 23.36 (Table 8.2.23). Almost equal percentage of people migrated to other states of India in search of jobs. The incidence of within district migration was higher for the families in SA. In BA and ORA the incidence of within district migration had been lower than that in SA. In ORA the large majority of the immigrants were found to have left the state in search of job. The incidence of migration was less prevalent in non-slum and slum areas. In non-slum areas a very high percentage of the immigrants were found to be located outside district but within West Bengal. There were 4 cases of immigrants for which the destination related information was available. 2 of them were situated outside district but within West Bengal and the remaining 2 were found to have migrated to other state.

Table 8.2.23: Place of Migration

Place of Migration	Riverine area		Border Area		Other Rural area		Non-slum area		Slum area		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Within District	35	29	19	21	2	11	1	8.3	0	0	57	23.36
Outside District within West Bengal	76	64	37	41	6	32	10	83	2	50	131	53.69
Other State	8	6.7	34	38	11	58	1	8.3	2	50	56	22.95
Total	119	100	90	100	19	100	12	100	4	100	244	100.00

Source: Baseline Survey 2008, ORG- MARG

N – Number

8.3 Vulnerable Women

There exists gender-based inequality in the district. The percentage of illiterates is higher among the female. In rural North 24 Parganas, the literacy rate among the male is 77.2 percent. For the female the literacy rate is 61.71 percent. There are blocks such as Sandeshkhali I, Minakhan and Haroa where half of the women are illiterate. In urban North 24 Parganas also, there is gender gap in literacy. The male literacy rate in urban North 24 Parganas is 89.93 percent. For the female it is 80.51 percent. Work participation rate is abysmally poor for the women. According to Census 2001, the WPR for the male in the district is 53.93 percent. For the female, the WPR is 11.33 percent. There are a few blocks in rural North 24 Parganas where the women's WPR is much lower than the district average. For example, in Amdanga, the female WPR is 5.59 percent. In Rajarhat, which is very near to the metro city Kolkata, the female WPR is 7.02 percent. In Deganag, the WPR for women is about 8 percent only. As the women remain dis-empowered in economic pursuit of the family, there develops the situation in which they become vulnerable to various social forces which work against the women.

The large majority of women in North 24 Parganas are driven to marriage before they attain adulthood. The baseline survey which collected the relevant information on the basis of a statistically regular survey covering 2600 households from urban and rural North 24 Parganas revealed that more than 80 percent of the children in rural North 24 Parganas get married before they attain adulthood. Even in the urban slum areas 70 percent of girl children are driven to marriage before they attain adulthood. The prevalence of early marriage is observed also in urban non-slum residential areas as Table 8.3.1 reports.

Table 8.3.1: Age at Marriage in the District

Age at Marriage	Riverine area		Border area		Other rural		Residential area		Slum area Urban	
	N	%	N	%	N	%	N	%	N	%
Less than 18	413	84	423	83	379	80	265	53	288	70
18-25	74	15	83	16	80	18	211	40	114	27
More than 25	3	1	2	1	7	1.9	31	7	10	2.5

Source: Base Line Survey 2008, ORG MARG

N – Number

With early marriage, the women suffer from indignation. They are driven to motherhood at an early age. The baseline survey observed that in SA, 40.81 percent of the mothers experienced the birth of their first child before attaining adulthood. In BA, 47.10 percent of the mothers were minor when they gave birth to their first child. Even in ORA and urban slum area, the scenario was largely the same. A more civilized situation seems to exist in non-slum areas of the district.

Table 8.3.2: Age of Mother at Birth of the First Child in North 24 Parganas

Age at Birth of first child	Sundarban Area	Border Area	Other Rural area	Nonslum area	Slum area	Total
	N	N	N	N	N	N
Below 17	191	227	194	92	113	817
18-23	240	225	217	271	209	1162
Above 23	30	27	44	107	57	265
Total	468	482	461	476	386	2273

Source: Base Line Survey 2008, ORG MARG

N – Number

As the women goes to the process of motherhood since an early age, the impact on general health sometimes becomes telling. In many families where the women remained deprived of proper food and health care, they become anemic as they bear the burden of reproduction at regular interval from an early age. A study on women in reproductive age, as reported in Table 8.3.3, reveals that more than 10 percent of the reported women at reproductive age in 22 rural blocks of the district suffer from anemia. Out of 15402 women reported in Sabdalpur BPHC 2746 were found to be anemic on medical tests. In Sundarpur the percentage of anemic mothers had been 15.68. One wonders how the life expectancy of the women in the district is found to be higher than that of the men.

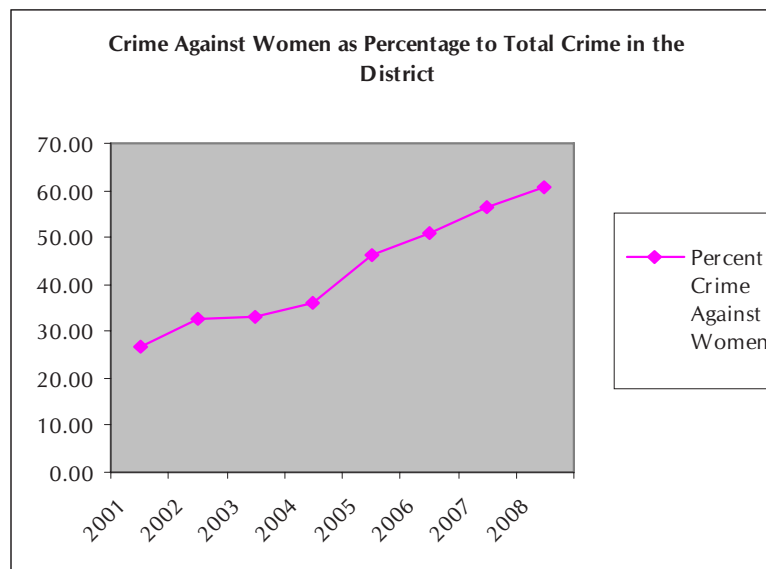
Table 8.3.3: Anemic Mothers in Rural North 24 Parganas

Name of the BPHC	Reported Women in Reproductive Age	Average number of Anemic Mother	Percentage of Anemic Mother
Amdanga	14571	1637	11.23
Chhotojagulia	24118	1676	6.95
Madhyamgram	15780	985	6.24
Biswanathpur	25385	2251	8.87
Maslandapur	18205	1288	7.07
Sabdapur	15402	2746	17.83
Reckjoani	16237	1751	10.78
Chandpara	27058	2259	8.35
Sundarpur	29698	4658	15.68
Bagdah	15822	1479	9.35
Nanna	14806	680	4.59
Bandipur	17025	2280	13.39
Shibhati	11396	715	6.27
Dhanyakuria	19329	703	3.64
Baduria	24024	3533	14.70
Haroa	17673	1171	6.63
Minakhan	16312	2812	17.24
Taki	16249	895	5.51
Sandelerbil	13308	782	5.88
Ghoshpur	13062	2247	17.20
Sandeshkhali	8210	2126	25.90
Sarapole	22735	3847	16.92
Total	396403	42518	10.73

Source: Health Department, 2008, North 24 Parganas

The social crime in the form of early marriage and early motherhood remains non-cognizable crime against women because the society sanctions and encourages such practices. Women also fall prey to cognizable crimes. According to Superintendent of Police, North 24 Parganas, during 2001-2008, the crime against women was increasing at a very high rate (Figure 8.3.1). In 2001, there were 2907 recorded crimes in the district. Crime Against Women (CAW) had been of the order of 780. By 2007, the number of CAW increased to 2171. The total crimes recorded in the district in 2007 had been 3842. From 26.83 percent in 2001 CAW increased to 56.51 percent by 2007. In 2008, the number of CAW was 1683, but this was up to the month of August. The disquieting feature was that CAW as percentage of total crimes in the district increased to 60.71 percent by August, 2008.

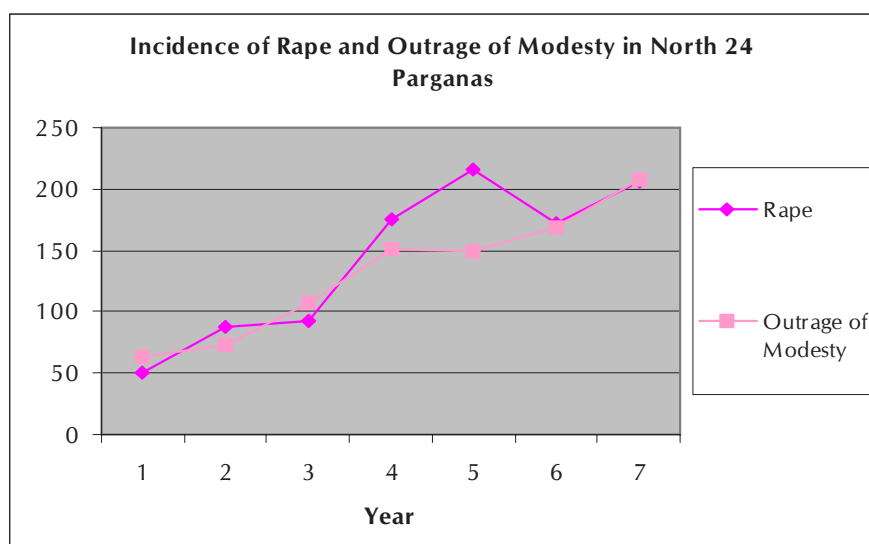
Figure 8.3.1: Crime Against Women in the District



Source: Superintendent of Police, North 24 Parganas

Most of the crimes against women were related to marriage, conjugal life and in-laws related issues. Cruelty by husbands and other relatives had been the major area of crime recorded with the Police Department. In 2007, more than 60 percent of the CAWs had been in the nature of cruelty by husbands and other relatives. Abetment to suicide, rape and outrage of modesty had been the other areas of CAW. Dowry death by burning has increased over time. Dowry death by other means is also increasing quite sharply as Table 8.3.4 indicates. The total number of dowry death had been 67 in 2007. In 2001 the number of such cases recorded with the police had been only 23. The number of rapes recorded by the police was only 51 in 2001. By 2007, it has increased to 206. Overtime there has been a sharp increase in cases of rape and outrage of modesty. It appears that women in the district have become more vulnerable to such crimes in recent years.

Figure 8.3.2: Rape and Outrage of Modesty in North 24 Parganas, 2001-2007



Year: 2001-2007

Source: Superintendent of Police, North 24 Parganas

Table 8.3.4: The Details of Crime Against Women: 2001- August 2008

Crime Head	2001	2002	2003	2004	2005	2006	2007	2008
Dowry Death By burning	6	13	9	10	21	11	17	6
Dowry Death By other means	17	24	16	53	50	61	50	45
Dowry Murder	0	1	4	0	1	5	2	5
Death Other Than Dowry	16	9	13	22	30	22	26	20
Abetment of Suicide	123	139	113	95	103	93	84	44
Cruelty by husband and other relatives	435	611	670	807	878	1049	1400	1163
Kidnapping	68	71	110	114	153	134	175	132
Rape	51	87	92	176	216	172	206	127
Outrage of Modesty	64	73	107	151	149	169	207	138
Eve Teasing	0	3	1	4	5	8	4	3
Total	780	1031	1135	1432	1606	1724	2171	1683

Source: Superintendent of Police, North 24 Parganas

The another area of vulnerability of women is trafficking. Women from the economically weaker section of the society are driven to prostitution in large numbers in this district. The district has the highest number of red light in the state of West Bengal. The highly porous West Bengal Bangladesh border is used for smuggling goods and trafficking women. There are marked red light areas in most of the municipalities and important trading points of the district. In some of the areas the trafficking is done by utilizing women who otherwise live a regular family life in non-red light areas. Police reports indicate that even the minors are inducted in this profession. In 2006, Police conducted raids in 39 places. 51 victims were rescued. As the police

records indicate 16 out of these victims were minors. In 2007, 44 cases of anti-human trafficking were registered. The number of victims that were rescued was 36. Among these rescued victims 27.78 percent were minors. 23 Traffickers were arrested in these raids; however none of them could be convicted. 27 customers were arrested with respect to these trafficking and they were not punished.

Preventive measures are often taken by the administration. Sometimes anti-human trafficking cases are registered. However, as the recent official data on trafficking indicate, no trafficker was convicted in recent years. At present there is no NGO associated with anti-trafficking in the district who can provide shelter to the rescued victims, according to the report of SP, North 24 Parganas. Neither any grant from the Government is received on this account nor any resources are there to rehabilitate such victims (Table 8.3.5). However, there are some NGOs which are contributing meaningfully in anti-trafficking activities. Jabala, Women's interlink foundation, Centre for Social Development, Nibedita Seba Mission and SARANE are some the well known NGOs of the district engaged in rehabilitating the victims.

Table 8.3.5: Summary of Women Trafficking Related Official Information (2006 & 2007)

	IPC (2006)	ITPA (2006)	IPC (2007)	ITPA (2007)
1. Anti Human Trafficking Cases Registered (Commercial/Sexual exploitation & Labour exploitation)	28	11	36	8
2. Total No. Of Victims Rescued	26	25	12	24
3. Minors among those Rescued	16	Nil	10	Nil
4. Total No. Of Traffickers & exploiters arrested	36	3	18	5
5. No. Of Customers among those arrested	Nil	24	Nil	27
6. Traffickers convicted	Nil	Nil	Nil	Nil
7. No. Rescued persons for whom the process of rehabilitation has been initiated rehabilitation of such victim.	Neither any grant from the Govt. is received on this account nor any resource to rehabilitate such victim however necessary assistance is to be provided to organisation for			
8. Name of NGO's associated with anti-human trafficking work	Not available at present			

IPC: Indian Penal Code, ITPA: Immoral Traffic Prevention Act (1956)

Source: Superintendent of Police, North 24 Parganas

8.4 HIV / AIDS / STD: Vulnerability of North 24 Parganas

As the district has the highest number of red light areas in the map of West Bengal, vulnerability to Sexually Transmitted Diseases (STD) and HIV AIDS does exist in the district. The district is highly urbanised and in many of the urban areas illegal trafficking of women takes place. Prostitution is often taken as a profession with an eye to the prospective clients in the Airport area. Many of the international passengers with unknown sexual history meet these prostitutes and the poor women unconsciously fall victim to HIV AIDS and STD.

Trans-border movement of people from Bangladesh also remains a potential source of transmission of these diseases. Unrestricted sex of the people who cannot maintain a family, a phenomenon which is often observed in urban slums and outskirts of the cities is also responsible for transmission of these diseases.

The office of the CMOH, North 24 Parganas regularly collect the information on blood test of the people visiting the Clinics of the state sponsored medical services. The presence of HIV was observed with respect to 0.4 percent of the blood samples in 1999. Assuming that the arrival is random, the results indicate that 4 out of 1000 persons in the district might be suffering from HIV. As the information given in Table 8.4.1 indicates in no year between 1999 and 2003 the blood tests could report the absence of HIV disease in the district. The reports of blood tests also indicate that many of the people in the district are suffering from other STDs (VDRL and HBV tests were positive in some of the cases).

Table 8.4.1: Status of Blood Safety Tests in North 24 Parganas, 1999 to 2003

Test	Year				
	1999	2000	2001	2002	2003
HIV	28 (0.4%)	29 (0.5%)	44 (0.4%)	31 (0.25%)	7 (0.2%)
VDRL	28 (0.4%)	111 (1.9%)	12 (0.1%)	7 (0.06%)	3 (0.07%)
HBV	225 (3.23%)	67 (1.15%)	85 (0.7%)	178 (1.46%)	47 (1.14%)
Total blood collected (in bottles)	6967	5819	12303	12217	4114 (upto March)

*Incidence of positive tests in parenthesis

Source: Dy.CMOH II office, North 24 Parganas

The issue of the prevalence of HIV among the sex workers, their clients and the people in uniform has also been probed in by the District Medical Office. HIV positive cases were found to exist among 0.33 percent of 400 cases tested in Madhyamgram RH. Seth Bagan Mahila Sanga of Basirhat conducted such a test among the clients of sex workers in 2006 and 2007. The sample size had been 250 in each year. The prevalence of HIV was observed in 3.23 percent of the clients in 2006. In the next year the percentage was found to be higher (4.84 percent). Such a test was also conducted in three consecutive years from 2005 in South Bengal Frontier Hospital run by the BSF. The sample size had been 250 in each year. The blood tests reveal that HIV positive cases were there among the BSF persons. In 2005, 0.53 percent of the cases were HIV positive. The percentage was 0.8 in each of the next two years.

According to the Department of Health, North 24 Parganas is a low to medium prevalence district (< 1% for ANC sites and < 5% for STD Clinic sites). The threat however exists that the intensity of prevalence might increase in near future. This is due to the fact that the interviews with the affected persons reveal that 5.6 percent of the respondents reported sex with non-regular partners in last 12 months and only 34.5% of respondents who had sex with non-regular partners reported of using condoms. For surveillance however, the district authority maintains four Surveillance Centres. These are situated in Naihati, Madhyamgram, Basirhat and in the border near Jagulia (Sentinel Surveillance). The issue is being sensitised by a Campaign for Safe Sex all over the district. For detecting cases and providing necessary support, along with the above mentioned Surveillance Centres provisions have been created in Barasat District Hospital, Basirhat Sub-Divisional Hospital, Bongaon Sub-Divisional Hospital and in Dr. B.N. Bose Hospital. Free distribution of Contraceptives and a DFID funded PSI on a three year project to further develop a social marketing and

condom promotion strategy have been taken up by the Health Department. A co-ordination between HIV and TB eradication department has been developed. Voluntary collection of blood for detecting such cases has been taken up by the authority. Support for HIV prevention programme is coming from Ministry of Labour, Railways, Defence and Home Department of the Central Government. However, greater convergence with Reproductive health & Integrated Child development programmes is necessary for the success of the programme.

Safety nets for migrant women

Jabala Action Research Organisation, a Kolkata-based civil society organisation (CSO) has embarked on a Safe Migration Project with the help of gram panchayats, to prevent the exploitation of young girls and women who migrate from rural areas to metropolitan cities and major towns in search of work. The Safe Migration Project operates in Bashirhat I, Gaighata and Swarupnagar blocks in North 24 Parganas district of West Bengal.

A natural corollary to a UNICEF-sponsored module developed by Jabala in 1998, which sought to rope in local self-governing bodies in rural areas to stem the flow of women into red-light areas, the Safe Migration Project uses tracking booths in the blocks to keep track of women who migrate into urban areas across the country, or across the Indo-Bangladesh international border in search of employment as domestic or factory workers.

Beginning with sensitizing the police and panchayats, Jabala organised awareness camps in schools and local youth clubs to familiarize people with the important aspects and modus operandi of traffickers. This resulted in the setting up of several village vigilance committees to tackle the problem. In 2002, the process was repeated in Swarupnagar block in the border district of North 24 Parganas. A safety net was also thrown in to protect girl-children, by training adolescent groups in rural areas and red-light areas of Kolkata.

Villagers normally get themselves registered with the panchayat if they plan to move elsewhere for work. Thereafter, Jabala takes over, verifying the employers antecedents and informing the local police station in the concerned city. This ensures that migrants are going to a safe environment to work, and escape exploitation as slave labour or as sex workers. Every migrant moving to Kolkata, Delhi or Mumbai is given a safe migration card that lists the Jabala helpline, along with police helplines in their place of origin, so that help is at hand in case of an emergency. Jabala works through its own branches in Delhi and Kolkata, while tracking and rescue operations in Mumbai are done through a partner CSO, the Rescue Foundation. Tracking has yet to commence in Mumbai and other parts of the country.

Over 5,000 safe migration cards have been issued to women and girls migrating out to metropolitan cities in search of work.

The project, which is still in its pilot stage, has so far restored 47 girls to their families. Of these, 15 were rescued from Delhi, two from Mumbai, and 30 from in and around Kolkata and West Bengal.

CHAPTER - 9

Chapter 9

EMPLOYMENT GENERATION UNDER NREGA

9.1 Introduction

The Government of India passed the National Rural Employment Guarantee Act (NREGA) in September, 2005. It is a demand driven employment generation scheme. Under NREGA, every rural household who volunteer to do unskilled manual work can demand wage employment from the state for at least 100 days for at least one adult member of the family. Panchayats at districts, intermediate and local level are the principal authorities for planning and implementation of the Act. The National Rural Employment Guarantee Act 2005 came into effect from 2nd day of February, 2006 in the 200 poorest Districts of India. From the next financial year 130 more Districts were brought under this Act. The Act was extended to the rest of the country of India in the year 2008. The key provisions of the Act are as follows:

To provide not less than one hundred days of guaranteed employment, in a financial year to every household in the rural areas where adult members, by application, volunteer to do unskilled manual work subject to the conditions laid down by or under the Act and in this Scheme.

Daily wages shall be made on a weekly basis or in any case not later than fortnight after the date on which such work was done.

If an applicant for employment under the Act is not provided such employment within 15 days of receipt of his application seeking employment or from the date on which the employment has been sought in the case of an advance application, which ever is later, he shall be entitled to a daily unemployment allowance.

Unemployment allowance shall be less than one-fourth of the wage rate for the first 30 days during the financial year and not less than one-half of the wage rate for remaining period of financial year. The burden of providing unemployment benefits is on the State government. Clause 8 (1, 2 and 3) of the Act 2005, however provides some legal immunity for the Programme Officer if the payment is not done 'in time or at all for reasons beyond his control'.

As far as possible, employment is to be provided within a radius of five kilometers of the village where the applicant resides at the time of applying. In case employment provided outside such radius, it must be provided within the Block and the labourers shall be paid 10 percent of wage as extra wages to meet additional transport and living expenses.

The period of employment shall generally be at least 14 days continuously with not more than six days in a week.

Funds are to be managed by the Panchayat and implementing officers. Panchayats are empowered to plan implement and monitor resources under the NREGS. However, the NREGA projects would aim at creating durable assets and strengthening the livelihood resource base of the rural poor.

In West Bengal there is a provision for forming a Gram Unnayan Samiti (GUS) with a Sachib to be elected duly by all the adult members of a Gram Sansad. The Sachib shall have the key role in implementing the scheme under NREGA.

Under the provision of sub-section (1) of Section 4 of the National Rural Employment Guarantee Act, 2005, the Government of West Bengal introduced the West Bengal Rural Employment Guarantee Scheme, 2006. However, the scheme was confined to 10 districts of the state. Subsequently, NREGS had been extended to 7 more districts. North 24 Parganas had been included in the scheme with effect from April 2007. In the district, the scheme had a formal take off on 2nd May, 2007.

9.2 Performance of the District: An Appraisal

During first few months of the financial year 2007-08, the scheme suffered from the initial problems of gearing up the delivery system, mainly at the grassroot level, as it was expected to happen in case of a demand-driven scheme of such a huge scale. However, the district could spend Rs. 34.68 Cr and could complete 1065 schemes in the first year itself which generated 3583839 days of employment for 113648 households. On an average, NREGS could provide 32 days of job per household in that year. By 2008-09, the initial problems could largely be overcome. The district could spend Rs.61.67 Cr on NREGS and 163353 households were provided with unskilled manual job. Employment per household in 2008-09 was 42 days. Thus, within one year, the spending capacity under NREGS increased by 77 percent. Consequently, 49705 additional households could be covered under the scheme and the person-days of employment increased by 91 percent (Table 9.2.1). One should also add that

Table 9.2.1: NREGS in the District: Performance Indicators (2007-08 and 2008-09)

Sl. No.	Indicator	Year 2007-08	Year 2008-09
Expenditure			
1	Expenditure incurred for Implementation of Schemes (in lakh)	3468.24.	6167.47.
Schemes			
2	Completed	1065	2817
3	Ongoing	2671	3835
Employment			
4	Job Cards Issued	406762	498437
5	Household demanded Employment	141290	169491
6	Household provided Employment	113648	163353
7	Person-days Generated	3583839	6877299
8	Person-days Generated per household	32 days	42 days

Source: District NREGS Cell, North 24 Parganas

in terms of job creation, North 24 Parganas was placed above the state average in 2008-09. In 2008-09, in the state, on an average, 36 man-days of job have been provided to the households demanding job. The comparable figure for North 24 Parganas as reported in Table 9.2.1 was 42.

Performance of various Blocks of the District

Basic implementation principles of employment generation under NREGS, as contained in the relevant Act is that there should be a collaborative partnership between the Central Government, the State Governments, the PRI and the local community. Broadly the main implementation activities are at the

village and block levels, coordination activities are mainly at the block and the district levels. Ideally at each level the concerned authorities are accountable to the community. The overall responsibility for ensuring that the scheme is being implemented according to the Act belongs to the District Programme Coordinator (DPC) at the district level and to the Programme Officer (PO)¹ at the Block level. Coordination among the agencies for implementation is envisaged as very important for the success of the scheme. The DPC and PO shall have to ensure that an effective coordination is being developed and maintained in the district.

Key agency is Gram Sabha and in West Bengal the mechanism has been decentralised further to incorporate a new institution at the grassroots level, viz, Gram Unnayan Samiti (GUS). The GUS is formed at village level and even at part of a village (para) depending on the size of the population of the village. The projects under NREGS are planned by the GUS which are subsequently approved by the Gram Sabha. The approved projects are then discussed in the meeting of the Gram Panchayat (GP) which has the role of coordinating the projects so that the planned projects are integrated at the level of a cluster of villages. The proposed projects are then sent to the block office where the PO with the help of the support staff coordinates the projects recommended by GPs. Among his important functions there are scrutinizing village plans, matching employment opportunities with demand for work at the block level, supervising the implementing agencies, ensuring social audit and responding to the complaints. The PO also monitors and supervises the works which are implemented by the PS which might have the responsibility of executing the works from among the 50 percent that are not being executed by the GPs and or GUS. The PO is answerable to the DPC who coordinates the employment generation activities of the district. The DPC also takes the responsibility of monitoring and supervising the employment generation activities which are taken up directly by the Zilla Parishad which under the provision of the NREGS can execute works from among the 50 percent that are not being executed by the GPs or GUS.

In addition to the PRI the Line Departments, Self Help Groups, NGOs and Central and State Governments undertakings are also being identified as implementing agencies at various tiers. The DPC or the PO, depending on the tier at which such agencies are operating, would also coordinate and supervise such activities.

In North 24 Parganas, there are 22 development blocks and 200 GPs. The number of GUS to be formed for the implementation of the schemes under NREGS at the grassroots level is 2603 (Table 9.2.2). Till the end of January 2009, 1572 GUSs could be formed in the district. As the data indicate, the performance in this regard had been the best in Haroa, where the success rate had been 100 percent. The block that comes after Haroa with respect to performance had been Sandeshkhali I (98.86) percent. The worst performer was Basirhat I and Swarupnagar. In these two blocks no GUS could be formed in any of the villages. According to the official data, the

¹ According to the Act the PO will not be below the rank of BDO. The PO should be a full time dedicated officer. The field level enquiry covering the blocks selected for this study however revealed that the BDO in no block 'is a full time dedicated officer' in charge of employment generation under NREGS.

Table 9.2.2: Block Specific Distribution of Gram Unnayan Samities

Name of the Block	No. of Gram Panchayat	No. of GUS to be formed	No. of GUS formed till 31.1.09
Amdanga	8	111	96
Baduria	14	156	18
Bagdah	9	133	124
Barasat-I	9	137	72
Barasat-II	7	93	70
Barrackpore-I	8	97	92
Barrackpore-II	6	100	75
Basirhat-I	7	121	0
Basirhat-II	9	76	11
Bongaon	16	211	34
Deganga	13	157	114
Gaighata	13	187	118
Habra-I	7	127	118
Habra-II	8	94	72
Haroa	8	98	98
Hasnabad	9	109	81
Hingaljanj	9	104	91
Minakhan	8	85	70
Rajarhat	6	92	80
Sandeshkhali-I	8	88	87
Sandeshkhali-II	8	82	51
Swarupnagar	10	145	0
Total	200	2603	1572

Source: DPRDO, North 24 Parganas

performance was very poor in Basirhat II where only 11 GUSs could be formed (success rate was 14.47 percent). Performance was even poor in Baduria where only 11.54 percent of the GUSs could be formed till end January 2009. The other poor performer in this regard was Bongaon where only 34 GUS could be formed (required number of GUS was 211). In some other blocks the success rate had been moderate (Barasat I, Gaighata and Sandeshkhali II). One should however mention that in 60 percent of the blocks the success rate had been more than 50 percent. As Table 9.2.2 indicates, for the district as a whole, the success rate was 60.39 percent.

In 2007-08, Rs. 61.35 Cr had been available for the implementation of NREGS in the district. The district could however spend only 56.52 percent of the available fund in that year. The block specific information indicates that the inter-block variation in this regard was quite high. Thus, in Sandeshkhali I, 73.48 percent of the available fund had been utilized in 2007-08. Expenditure efficiency was still higher in Minakhan where 76.23 percent of the allocated fund had been utilized. In Haroa, Hasnabad, Deganga and Barasat II

performance had been more or less comparable to what was achieved in Sandeshkhali I or Minakhan. On the other hand, the performance was deplorable in Gaighata. In Gaighata, Rs. 203.62 lakh had been allotted for NREGS in 2007-08. However the block could utilize only Rs. 24.66 lakh. Performance was poor in Rajarhat as well where 20.4 percent of the allocated fund could be utilized. In Barasat I, the performance had been even worse. Out of the allotted fund of 118.98 lakh, the block could spend only 16.16 lakh for implementing schemes under NREGS in 2007-08. However, the scenario improved even in worse performing blocks in the next year.

Table 9.2.3: Progress of NREGS in North 24 Parganas (2007-08)

Block	Total availability (Rs. In lakh)	Expenditure (cumulative) (Rs. In lakhs)	Exp/ Availability	Job-Cards issued	Household Demand	Household Employment provided	No. of days employment provided	Work Completed	Work in Progress
Amdanga	179.50	66.60	37.10	17315	3836	3074	24	43	105
Baduria	420.23	197.09	46.90	28510	16254	13006	16	47	295
Bagdah	170.20	84.03	49.37	28054	1366	1104	77	1	64
Barasat-I	118.98	16.68	14.02	6662	1212	976	17	10	16
Barasat-II	506.76	336.05	66.31	23914	14567	11656	33	147	247
Barrackpore-I	122.34	42.44	34.69	5126	1989	1989	29	10	24
Barrackpore-II	63.10	22.95	36.37	1661	504	485	41	42	37
Basirhat-I	102.82	52.03	50.60	8595	2036	1637	34	4	53
Basirhat-II	212.43	96.05	45.21	20171	5484	4393	26	84	88
Bongaon	190.28	71.22	37.43	34259	5800	4648	15	133	179
Deganga	535.01	394.58	73.75	35728	15223	12182	37	144	388
Gaighata	203.62	24.66	12.11	17221	1484	1198	21	2	86
Habra-I	97.90	60.47	61.77	9949	5547	4442	16	19	58
Habra-II	168.89	70.82	41.93	13269	3413	2733	25	26	72
Haroa	346.49	261.48	75.47	18813	11264	9021	36	103	122
Hasnabad	691.59	507.55	73.39	27463	17297	13842	40	156	237
Hingalganj	654.22	369.01	56.40	26976	14239	11396	24	0	196
Minakhan	402.03	306.46	76.23	16934	7716	6175	46	65	134
Rajarhat	41.97	8.59	20.47	1845	516	424	25	5	22
Sandeshkhali-I	321.69	236.37	73.48	19453	3681	2955	68	21	120
Sandeshkhali-II	318.09	159.05	50.00	18280	5713	4579	45	1	89
Swarupnagar	168.30	68.68	40.81	26564	2149	1733	21	2	39
Total	6036.44	3452.86	57.20	406762	141290	113648	32	1065	2671
Other Deptt. (DFO)	61.82	15.38	24.88	NA	NA	NA	NA	NA	NA
Other Deptt. (SDB)	37.55	0.00	0.00	NA	NA	NA	NA	NA	NA
TOTAL	6135.81	3468.24	56.52	406762	141290	113648	32	1065	2671

Source: District NREGS Cell, North 24 Parganas (2007-08)

In 2007-08, 406762 job cards had been issued in the district. The highest number of job cards had been issued in Deganga which was closely followed by Bongaon and Baduria. The lowest number of job cards were issued in Barrackpore II where only 1661 households registered for job from the state under NREGS. In Rajarhat and Barrackpore I also, the number of job card holders have been quite low. It seems that demand for job in the unskilled manual work under NREGS had been rather low in such blocks which are nearer to the metropolitan area of Kolkata. This is only expected given the fact that job opportunities are greater in Kolkata urban agglomerate and the rural adults from the nearby blocks usually get job in and around the city even if they lack trade related skill.

Table 9.2.4: Progress of NREGS in North 24 Parganas (2008-09)

Block	Total availability (Rs. In lakh)	Expenditure In lakh	Exp/ Availability	Job-Cards issued	Household Demand	Household Employment provided	No. of days employment provided	Work Completed	Work in Progress
Amdanga	195.49	164.52	84.16	19132	3601	3175	56	78	175
Baduria	383.16	341.97	89.25	36845	16472	16271	30	172	316
Bagdah	257.14	220.19	85.63	32948	3207	3162	61	110	119
Barasat-I	152.77	105.87	69.30	12764	4916	4916	25	59	68
Barasat-II	610.41	523.55	85.77	25386	22510	22510	25	222	367
Barrackpore-I	111.72	84.65	75.77	7578	2594	2594	37	68	42
Barrackpore-II	64.94	42.05	64.75	2485	796	796	59	81	35
Basirhat-I	185.28	156.74	84.60	17206	5082	4784	39	68	100
Basirhat-II	270.45	236.44	87.43	22677	4659	7100	37	129	126
Bongaon	240.17	175.35	73.01	37063	3497	3398	59	146	192
Deganga	686.40	607.53	88.51	46514	11240	11156	67	343	671
Gaighata	148.58	134.75	90.69	19212	2429	2384	64	83	157
Habra-I	152.56	133.05	87.21	13128	2800	2730	62	51	102
Habra-II	187.21	155.25	82.93	13916	3158	3154	51	87	115
Haroa	507.65	451.41	88.92	22551	8984	8965	61	194	225
Hasnabad	741.80	603.09	81.30	31216	23951	23431	35	166	273
Hingalganj	671.70	622.30	92.64	30352	22874	21280	27	296	221
Minakhan	440.11	384.82	87.44	17903	7016	7016	39	182	165
Rajarhat	38.60	7.22	18.72	1956	175	154	55	13	21
Sandeshkhali-I	335.38	256.73	76.55	31564	9511	4964	49	63	119
Sandeshkhali-II	346.51	303.25	87.52	19722	4345	4295	88	82	102
Swarupnagar	513.59	393.81	76.68	36319	5674	5118	93	124	124
Total	7241.59	6104.55	84.30	498437	169491	163353	42	2817	3835
Other Deptt. (DFO)	66.43	41.92	63.10	NA	NA	NA	NA	NA	NA
Other Deptt. (SDB)	37.55	21.00	55.93	NA	NA	NA	NA	NA	NA
TOTAL	7345.57	6167.47	83.96	498437	169491	163353	42	2817	3835

Source: District NREGS Cell, North 24 Parganas (2008-09)

In 2008-09, expenditure efficiency (Rs spent/funds available) improved in all the blocks except Rajarhat where only 18.72 percent of the allotted fund could be utilized. The average expenditure efficiency of the blocks of the district had now improved from 56.52 percent to 84.3 percent. In Hingalganj, the percentage of available funds that have been spent in 2008-09 was as high as 96.24 (in 2007-08, Hingalganj could spend only 56.2 percent of the allotted sum). Spectacular performance was recorded in Gaighata where 90.69 percent of the allotted fund could now be utilized. As we have already mentioned the performance of Gaighata block in implementing NREGS was abysmally poor in 2007-08 when it could spend only 12.11 percent of the allotted fund. In Barasat I, where the expenditure efficiency was recorded as poor as 14.02 percent in 2007-08, the delivery system improved impressively so much so that the block could now spend 69.3 percent of the allotted fund. In this context one should mention the performance of Deganga and Haroa. These two blocks performed very well in terms of expenditure efficiency in 2007-08 when the scheme was initiated. As Table 9.4.4 indicates, the performance of these two blocks improved further in the next financial year. In Haroa, 88.92 percent of the allotted fund have been utilized in 2008-09. The comparable figure for 2007-08 have been 75.47 percent.

The NREGS is also implemented through Line Departments. In North 24 Parganas, funds were allotted to two Line Departments, namely the department of Forest and Sunderban Development Board, right from the initiation of the scheme. As the information contained in Table 9.2.3 and Table 9.2.4 indicated, the performance of the Line Departments had not at all been impressive. Thus the office of the DFO received 61.82 lakh for NREGS in 2007-08. The DFO could utilise only 24.88 percent of the allotted fund in that year. As regards SDB, the situation was deplorable. 37.55 lakh had been allotted to SDB in 2007-08. As the data indicate, the SDB could not spend anything out of the allotted fund in that year. However, the performance improved in the next year. As Table 9.2.4 indicates, the Forest Department could now spend 63.10 percent of the allotted fund. It appears that the performance of SDB had been even better compared to the previous year. SDB could now spend 55.93 percent of the allotted fund.

Table 9.2.5: Block Specific Distribution of Employed Job Card Holders and the Days of Employment

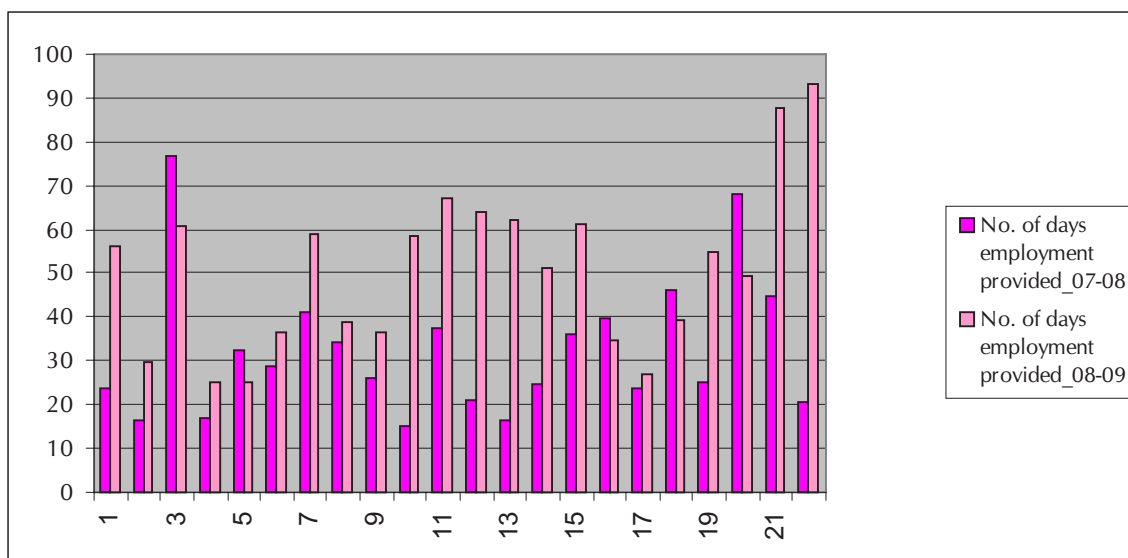
Block	Per cent Employed		Days of Employment	
	2007-08	2008-09	2007-08	2008-09
Amdanga	22.15	18.82	24	56
Baduria	57.01	44.71	16	30
Bagdah	4.87	9.73	77	61
Barasat-I	18.19	38.51	17	25
Barasat-II	60.91	88.67	33	25
Barrackpore-I	38.80	34.23	29	37
Barrackpore-II	30.34	32.03	41	59
Basirhat-I	23.69	29.54	34	39
Basirhat-II	27.19	20.55	26	37
Bongaon	16.93	9.44	15	59
Deganga	42.61	24.16	37	67
Gaighata	8.62	12.64	21	64
Habra-I	55.75	21.33	16	62
Habra-II	25.72	22.69	25	51
Haroa	59.87	39.84	36	61
Hasnabad	62.98	76.73	40	35

Block	Per cent Employed		Days of Employment	
	2007-08	2008-09	2007-08	2008-09
Hingalganj	52.78	75.36	24	27
Minakhan	45.57	39.19	46	39
Rajarhat	27.97	8.95	25	55
Sandeshkhali-I	18.92	30.13	68	49
Sandeshkhali-II	31.25	22.03	45	88
Swarupnagar	8.09	15.62	21	93
Total	34.74	34.00	32	42
Coefficient of Variation			0.62	0.46

Source: District NREGS Cell, North 24 Parganas

In some of the blocks the percentage of job-card holders seeking employment under NREGS had been very low. For example, in Swarupnagar only about 8 percent of the job card holders sought employment in 2007-08. The percentage was still very low (15.62) in 2008-09. In Bagdah, only 4.87 percent of the job card holders were engaged in NREGS related employment in 2007-08. The percentage was only 9.73 in the next year. There had however been some other blocks in which the percentage of job card holders seeking employment and getting engaged in state sponsored employment generation scheme had been quite high. Thus, in Barasat II 60.91 percent of the job card holders were engaged in NREGS in 2007-08. The percentage was still higher (88.67) in 2008-09. Among the better performing blocks, one may also mention Hasnabad where the relevant percentage was 76.73 in 2008-09. On an average however, only 34.74 percent of the job card holders were engaged in NREGS in the blocks of the district in 2007-08. The percentage was marginally lower in 2008-09 (Table 9.2.5).

Figure 9.2.1: Man-days of Employment (2007-2009)



Name of the blocks: 1: Amdanga, 2: Baduria, 3: Bagdah, 4: Barasat I, 5: Barasat II, 6: Barrackpore I, 7: Barrackpore II, 8: Basirhat I, 9: Basirhat II, 10: Bongaon, 11: Deganga, 12: Gaighata, 13: Habra I, 14: Habra II, 15: Haroa, 16: Hasnabad, 17: Hingalganj, 18: Minakhan, 18: Rajarhat, 20: Sandeshkhali I, 21: Sandeshkhali II, 22: Swarupnagar

Source: Prepared from Table 9.2.5

The crux of the issue however is the number of days that an average employment seeker could be engaged under NREGS in rural North 24 Parganas. In the first year, the average number of days of employment per job seeker had been 32. In the next year the average increased to 42 days. As the data indicate, there is wide inter-block variation in this regard. For example, in Hingalganj, the number of days had been 24 and 27 in 2007-08 and 2008-09 respectively. In Bagdah, on the other hand the days of employment per engaged workers was 77 in 2007-08 and 61 in 2008-09. As Fig 9.2.1 reveals, the variation is both spatial and inter-temporal. However, inter-block variation decreased over time as captured in the decreasing value of Coefficient of Variation (Table 9.2.5, Last Row). One would conclude that average number of days of employment is increasing over time and the inter-block variation in performance is decreasing in the district. The target of ensuring 100 days of employment for the job seekers could not be achieved in any of the blocks. In Swarupnagar however, the job seekers were ensured 93 days of wage employment in 2008-09. In Sandeshkhali II, the job seekers were ensured 88 days of wage employment in the same year.

The shelf of schemes accepted for implementation include the projects for construction and repair of village roads, flood control and protection related schemes, desilting of tanks, ponds, old canals and traditional open well as also minor irrigation works and water conservation and water harvesting related activities. The Forest Department in the district which is also a Programme Impementaion Agency has taken up employment generation schemes as under (i) Raising of Nurseries at every Gram Panchayat, (ii) Fruit Plantation at the land holding of individual of BPL families / IAY beneficiaries / SC / ST beneficiaries / Beneficiaries of Land Reforms etc, (iii) Raising of kitchen garden at the land holding of poor families, (iv) Raising Social Forestry by the Gram Panchayats, (v) Strip Plantation particularly along the road-side to maximize its durability. The department has also taken up the activities for promotion of Women Self Help Groups by involving them in grafting of different variety of fruits.

In 2007-08 the district implemented 3736 schemes of which 1065 schemes were completed and work was in progress with respect to 2671 schemes. The largest number of schemes were taken up in Deganga... 532 schemes were taken up there in that year and work was completed with respect to 144 schemes. The performance was impressive also in Barasat II, Bongaon and Hasnabad. In Hingalganj, on the other hand, work remained incomplete with respect to all of 196 schemes that had been taken up by the GPs of the block. In 2008-09, the number of schemes taken up by the district increased to 6652. Work was complete with respect to 2817 schemes. The best performer in terms of both number of schemes taken up and the works completed had again been Deganga. It spent Rs. 6053.3 Lakh (88.15 percent of the allotted sum) and took up 1014 schemes. Work was completed with respect to 343 schemes. The performance of Hingalganj was also impressive in that year. The GPs in Hingalganj spent Rs. 622.30 Lakh (92.64 percent of the allotted sum) for implementing 517 schemes. Works related to 296 schemes had been complete during the same year. In terms of the number of projects taken up for implementation, the performance had been poor in Barasat I, Rajarhat, Barrackpore I and Barrackpore II. These are the blocks in which the number of job card holders itself had been low. The villages in these blocks being proximate to Calcutta urban agglomerate, it appears that the demand for NREGS related jobs is rather low in these blocks.

9.3 Challenges and Way Forward

The NREGS was expected to be a demand-driven job creation activity to be taken up basically by the GPs. It appears that the scheme did not receive much response in some blocks of the district. The percentage of job card holders seeking employment had never been very high. Individuals seeking job had been even

lower. Thus in Sandeshkhali II, there are 32042 households according to RHS (2007). The number of BPL families there had been 19128, according to the same survey. The number of job card holders in Sandeshkhali II in 2008-09 is 19722. The number of households demanding employment in Sandeshkhali II in the same had been only 4345. If we are to follow the official information we shall have to conclude that only a low percentage of BPL families had been seeking job under NREGS in that block. This is rather unrealistic. The reality might be that the basic provisions of the

scheme, particularly, the provision that one may demand job from the Programme Officer under NREGS for not more than 100 days a year, are yet to be sensitized properly among the target group of the beneficiaries of the scheme.

The sensitization programme can best be taken up by forming the GUS where the shelf of schemes would be discussed and the participation of the beneficiaries would be ensured. Limitations notwithstanding, it appears that the relevant GPs could perform well in selecting the shelf of projects and implementing the NREGS related programmes in the villages under the concerned GPs. They could take up the sensitization programme to some extent. In many blocks, quite a large number of Job cards could be issued. The shelf of projects to be covered under NREGS have been prepared in all the GPs of the district. In fact, in North 24 Parganas, every Gram Panchayat maintains a shelf of at least 50 (Fifty) approved Schemes at any point of time. It also appears that there is no problem related to transfer of funds from the District NREGS Cell to the GP office. Based on assessed requirement of fund by the Block Development Officer and Programme Officer, fund is allocated to the PIA's (Gram Panchayat or Block) from District NREGS Cell. As the arrangement stands now, fund is credited to the Bank Account of PIA within three working days. One should add that specific arrangement with Banks in this regard has been worked out. At the completion of the job, the Nirman Sahayak visits the workplace and the muster roll is prepared. The beneficiary usually gets the payment within 14 days. All payments are made through Banks and Post Offices.

Even then one would argue that the district could perform better had the GUS been formed in every village of the district. Since GUS works at the grassroots level it would have taken up the sensitization programme with a better coverage. One must not forget that in many of the blocks the target of 100 days of guaranteed job to every applicant is yet to be attained. Again, the relevant data indicates that the number of households getting employment under NREGS is yet to cover a large number of BPL households in many of the blocks of the district. In Amdanga for example, only 3175 households could be employed under NREGS in 08-09. The number of BPL households according to RHS is 14882 in Amdanga. Even if all the persons employed are assumed to belong to the BPL households the percentage of households covered under NREGS comes as only 21.33 of the BPL households. In terms of the same parameters, the coverage in Gaighata is 12.84 percent and that in Habra I is 15.62 percent (Table 9.3.2). In some of the blocks the coverage had been quite high (even more than 100 percent). But then, one should point out that the number of blocks in which the coverage was low had been much higher than these better performing blocks. One cannot deny that the coverage of the NREGS programme has to be widened further in this district.

The programme implementation cell of the district has taken up this challenge. An extensive IEC campaign was planned and initiated during Financial Year 2008-09 to reach out to every target entity. The campaign included audio visual inputs together with printed publicity material. Ten different types of posters were printed and put up at every village of North 24 Parganas while leaflets were distributed among the target beneficiaries. For each of the 2,603 Gram Sansads covering 200 Gram Panchayats, the campaign was organised for one working day.

Table 9.3.1: Block-wise Distribution of BPL and the Households employed under NREGS

Name of the Block	Number of Household	BPL Household (2007)	Employed under NREGS (08-09)	Employed as percentage of BPL
Amdanga	45025	14882	3175	21.33
Baduria	61621	25105	16271	64.81
Bagdah	49566	7219	3162	43.80
Barasat-I	53592	9891	4916	49.70
Barasat-II	50021	11563	22510	194.67
Barrackpore -I	29926	2584	2594	100.39
Barrackpore -II	42997	12949	796	6.15
Basirhat-I	41345	14381	4784	33.27
Basirhat-II	41567	7318	7100	97.02
Bongaon	95584	26476	3398	12.83
Deganga	53468	7640	11156	146.02
Gaighata	81779	18570	2384	12.84
Habra-I	50192	17474	2730	15.62
Habra-II	35374	11231	3154	28.08
Haroa	42227	14244	8965	62.94
Hasnabad	41234	11829	23431	198.08
Hingaljanj	40706	18114	21280	117.48
Minakhan	36355	13966	7016	50.24
Rajarhat	32573	7363	154	2.09
Sandeshkhali-I	33063	19271	4964	25.76
Sandeshkhali-II	32042	19128	4295	22.45
Swarupnagar	58162	15828	5118	32.34
Total	1048419	307026	163353	53.20

Source: RHS, 2007 and District NREGS Cell, North 24 Parganas

Again, for improved management of the Programme, a major capacity building initiative has taken up in the District. The initiative focuses primarily on stake holders assigned to implement schemes at grassroots level. The secretaries of the GUS and the functionaries of the GPs were involved in this capacity building exercise. The modules of training included:

- a) Record Management at Gram Panchayat and Report Return generation.
- b) Work site Management - Training of work site Supervisors.
- c) Technical Skill Development - For Gram Rozgar Sevak.
- d) Hands on Training on 'NREGS soft 3.1', the MIS Software for the village level Data Entry Operators.

As a part of confidence building exercise, the district has made it mandatory to inspect at least 10 percent of the schemes under NREGS by the District NREGS Cell. For the block level functionaries it is now mandatory to inspect cent percent of the project sites after the schemes are implemented. There is also a provision of social audit. Muster Rolls are being verified by the Self Help Groups of the villages. The Muster Roll are read on every second Saturday at the Gram Panchayats.

The major challenge that the district is now facing is in the area of convergence between the projects implemented by the Line Departments and the projects implemented by the Institute of Local Self Government in the district. Ministry of Rural Development Government of India together with other Ministries have already issued guidelines for convergence with NREGS the schemes under Indian Council of Agricultural Research (ICAR), Schemes of Ministry of Environment & Forest., Pradhan Mantri Gram Sadak Yojana (PMGSY) and Schemes of Ministry of Water Resources. Schemes of the Department of Land Reforms can also be diverted to the NREGS. The district has taken up the convergence exercise with respect to many such schemes. The district of North 24-Parganas in West Bengal has already included the Forest Department in the works of NREGA since the last two years. Apart from technical expertise of Forest Department, it is also a Programme Implementing Agency.

The Forest Department is now implementing a scheme of Mango Grafting in which the local SHGs are being involved. 91 SHGs with around 1000 members took up this scheme under the aegis of the FD. A continuous capacity building for the identified SHGs was initiated in 2007. Grafting was taken up with respect to two varieties of hybrid mangoes. Raising of mango saplings through stone grafting was being done by the selected SHGs. The project involved a wage component which was provided by NREGS. The technical support came form the FD. The raised mango saplings are being sold to the local private vendors. Sell proceeds accrues to the members of the SHGs. SHGs thus get both the wage and the marketing margin. This is a novel exercise which is becoming popular in many blocks of the district.



A Brick flat soling road constructed under NREGS



NREGS : Performance Notice Board (Updated on first of every month)



Pit measurement by Technical Assistant at worksite



Disclosure Notice Board at worksite

CHAPTER – 10

Chapter 10

ENVIRONMENT AND DISASTER MANAGEMENT

10.1 Introduction

North 24 Parganas is a district north –western part of which is densely populated urban fringe of the metropolitan city of Kolkata with already built Salt Lake City and the up-coming new city at Rajarhat. The south-eastern part of the district on the other hand, consists of remote riverine villages in the Sundarbans. It covers an area of 14,052 sq. km and has population strength of 89,34,286 (Census-2001). This district has been the witness to partition of Bengal, which led to migration of huge population who had settled down on the banks of the River Ganga and its irrigation Canals. This had created a stress on the natural resources of the entire district, which has a direct and indirect adverse impact on the environment of the district. The district now faces both the urban and rural environment related challenges. In urban North 24 Parganas for example, in most of the existing industries, more so in the small-scale sector, environmental management has not been taken up in a comprehensive and complete form. Waste management, water recycling, landscaping or noise protection have not been planned or implemented in systematic manner.

North 24 Parganas is a deltaic district of West Bengal. It embraces the moribund delta in the north, matured delta in the middle, and active delta in the south and a depressed zone of brackish marshes between the active and the mature delta. The active delta still growing southwards is a system of innumerable tidal rivers, canals and creeks, saline soils, swamps and marshes. A part of this active delta contains forests. Known as Sundarbans, this part of the active delta region is under reserve forests. Outside urban North 24 Parganas, the vast terrain of this deltaic district is now facing serious environmental problems. The wetlands in the moribund and matured delta region of the district are now facing serious threat. The soil in the wetlands used to remain saturated with water for at least sometimes during the year and thus it provided a sustenance to biological diversity as was evident from the concentration of birds (especially waterfowl), mammals, reptiles, amphibians, fish and invertebrate species, as well as countless plant species that they used to support. These wetlands are now drying up. Threat is also eminent in Sundarban forest areas.

10.2 Mitigating Environmental Challenges in Urban North 24 Parganas

In 1997, the Pollution Control Board put in place a policy for intervention while setting new industries. Industries were divided into three main categories depending on their potential to cause pollution, namely, Red, Orange and Green. New industrial units falling in the Red category are not permitted to be set up in the municipalities in the Kolkata Metropolitan Area (KMA). The entire industrial belt of North 24 Parganas in the eastern bank of river Ganga situated in 20 out of 27 municipalities of the district is included in KMA. As a result the district now gets the benefit of restricting industrial pollutions related to new industrial units in Jute, Pulp & Paper, Engineering, Chemical & Pharmaceuticals, Ceramic Industries, Dyeing and Bleaching, Power Plant, Brickfields, and Rice Mills. etc. which were notable for creating environmental hazards in these municipalities. Obvious exceptions to the above rule are hospitals, which ought to be allowed subject to comply with the rules on pollution control, as applicable to them. Orange category industries are not permitted to come up in areas under the Kolkata and Howrah Municipal Corporations, unless they are within industrial estates. In North 24 Parganas some industrial units in the orange category are now being set up because much of the industrial area of North 24 Parganas does not belong to KMC. Again, a major exception is hotels and restaurants, which fall in this category, but they are also allowed even in congested areas subject to their compliance with pollution control standards. Green category industries may be set up anywhere subject to the approval by the local body.

To assess the overall environmental status of the State, the Board monitors the air quality and water quality at different stations distributed evenly all over KMA and significant industrial hubs of the state. The water quality monitoring parameters are BOD, DO, Faecal Coliform and Total Coliform at Palta and Dakshineswar within the district. There are some Arsenic prone areas in the district. According to Public Health Engineering (PHE) Department, population exposed to arsenic pollution in North 24 Parganas is in the order of 1242392. The PHE has taken some steps for providing arsenic-free water to the affected rural areas of the district (See Chapter 6). The Air Pollution Sensitivity and the Water Pollution sensitivity (both surface and ground) can be an important decision making tool with respect to accommodating new developmental activities, or imposing stricter emission and effluent standards for existing developmental activities which are polluting in nature.

Solid Waste management is another area in which interventions are being made under '*Strengthening of Infrastructure of SPCBS/PCCS*'. Under this project, with financial assistance from MOEF, the Board started inventory management of Municipal Solid Waste (MSW) and Biomedical Waste (BMW) in 126 municipalities of the state which included 27 municipalities of this district (out of these 27 municipalities, 20 are situated inside KMA). To improve the present status of the BMW management system, two common Biomedical Waste Treatment & Disposal facilities are operating at Belgachia & Kalyani, where waste management services are provided in lieu of service charge.

There is a model project on MSW management which is being operationalised in North Dum Dum and New Barrackpore municipalities of the district. The project is receiving financial support from the CPCB and KMDA on 50:50 cost sharing basis. The project is being implemented in two phases. Phase I is basically for designing and setting up of collection, segregation, storage and transportation system for MSW and Phase II is for the setting up of Common Compost Plant and land fill facility. The work under Phase I has been completed by both the municipalities.

Increased consumption of Plastics has put severe pressure on the ecosystem. In a directive issued by WBPCB, specific tourist /heritage spots of the state were declared 'Plastic Carry Bag Free Zones'. Future strategies for the effective enforcement of the order with respect to site-specific problems have been outlined. The board has collaborated with the 'Bazar Samity' of Kolkata Municipal Corporation and small-scale jute/paper manufactures for adopting measures to restrict the use of plastic carry bags in shops and markets in a phased manner and the same approach should be adopted for this district. This is also being implemented in the municipalities of the district.

The district is also executing a project on '*Pollution Prevention and Waste Minimization of Small Scale Industrial Units in KMA*'. The Project has been instrumental in phasing out of all coal fired small boilers and down draft coal fired ceramic kilns and to switch over to cleaner fuels like oil or gas instead of coal. These small industries located in heavily congested areas of the city, are required to comply with emission standard of 150 mg/Nm³ for particulate matter. The case of cluster of ceramic industries in Belghoria within Kamarhati Municipality is worth mention here. A large number of ceramic units in Belghoria have changed their coal fired downdraft kiln to oil fired shuttle kiln. Also industries having small coal fired boilers have changed their fuel from coal to oil and industries having boilers with capacity more than 2 MT/hr have installed air pollution control system. All these have resulted in huge reduction of particulate matter emission. The project has also resulted in significant reduction of emission of CO₂ a green house gas.

10.3 Management of Wetlands and Water bodies in the District

Wetlands are basically the water bodies where the soil is saturated with water for at least sometime during the year. There is a large number of derelict canals and river branches in the district which constitute

wetlands in various blocks and municipalities of the district. The economic benefits of wetlands are fisheries; agriculture, maintenance of water tables; grazing; timber production; energy resources, such as peat and plant matter; transport; and recreation and tourism opportunities. It also provides sustenance to biological diversity, as is evident from the concentrations of birds (especially waterfowl), mammals, reptiles, amphibians, fish and invertebrate species, as well as countless plant species that they support. The most important among these wetlands is East Calcutta Wetlands which has been declared a *Ramsar site* on August 19, 2002.

In the wetlands to the east of Calcutta, wastewater is used in agriculture and fisheries covering an area of about 12500 hectares. This provides resource recovery and a natural waste treatment system for the municipal sewage of Calcutta. The area has been described as waste recycling region. It has three sub-regions. In the first sub-region there are farms growing vegetable on a garbage, substrate and are uniquely planted with alternate bands of garbage filled lands and channel ponds. The treated sewage is used for irrigating the garbage fields for growing vegetables. Some ponds also grow fish fingerlings on a commercial basis. The second sub-region consists of fishponds. There are channels for the waste to flow from the first region after being used there. The used water is then sent to the third sub-region, which comprises paddy fields, which get irrigation for multiple crops out of this effluent from fishponds. There are some fishponds also in this region, which do not have any access to untreated sewage. These ponds also grow fish by using the spent water.

12,500 hectares (125 million square meters) of sewage fed wetlands to the east of Calcutta, between the river Hooghly and Bidyadhari (presently a derelict canal) is unique in many ways. Run-off from the wetlands join the Kulti gong, 28 kilometres further east of Calcutta, and flow into the sea. The tropical location of the wetland, which lies between 22°25' and 22°40' N, 88°20' and 80°35'E results in it being blessed with plenty of sunshine, the solar energy playing a pivotal role along with biota in sewage treatment. The climate in the area is tropical, temperatures in the region ranging from 40°C to 14°C, and receiving total annual rainfall of around 1300 mm. The wind flow is generally in a north-easterly direction, flowing from over the city of Calcutta into the East Calcutta wetlands and average wind speeds are in the range of 5 kilometres per hour. While the slope of land is not regular, it has a gradient towards the east and southeast direction, away from the Hooghly, towards the Kultigong.

While the ECW are better known for their socio-economic potential, they support several species of flora and fauna as well. The ECW has high fin fish and mollusk an diversity, around 20 mammal species, some rare and threatened reptile species, mediocre floristic diversity (around 100 different plants) in the core area and low avian diversity (more than 40 bird species), which has been declining over the years. There is a lot of potential to increase the floristic diversity, which could also be put to commercial use.

In 1990, United Nations Environmental Programme (UNEP) acknowledged the activities of conserving Calcutta wetlands and deriving a technology option out of it as one of the outstanding environmental achievements. Subsequently, in 1992 a case study on Calcutta wetlands was presented at the expert committee meeting of the Ramsar Convention. This was accepted there as the only example of wise use of city effluent from all over the world. The Government of West Bengal had moved the Government of India for the inclusion of Calcutta Wetlands in the Ramsar list of wetlands of international significance and it was included in the list *Ramsar sites* in 2002.

The State Government has constituted the 17-member East Calcutta Wetlands Management Authority headed by Chief Secretary to provide for conservation and management of the East Calcutta wetlands some parts of which fall in this district. Some measures are being taken for preserving the East Calcutta Wetland. This is also imperative in view of an increasing pressure on land for human settlement which leads to filling up of the remaining part of the wetlands.

Out of 86250 hc of water bodies in the district *beels*, *baors* and brackish water (*bheri*) accounts for 42661.19 hc. Many of these *beels*, *baors* and brackish water bodies are now in the moribund stage. This is mostly because of the growing pressure of population. Typically, *beels*, *baors* and brackish water regions adjacent to an urban area are now being filled up for accommodating the expansion of the nearby urban settlements. The government however, is now taking steps against illegal encroachment on these bodies with the active support of the Land and Land Revenue Department of the state.

Studies are being carried out to evaluate the environmental status of some important canals viz. Bagjola Canal, Ichapore Canal, Noai Canal where restoration of water quality is urgently required. The water samples were collected in different seasons to get the seasonal variation of water quality. Recommendations of test results are now being sensitized in the public domain so that people become aware of the problem. Policies are also being formulated so that the environmental hazards are minimised.

Since the District covers a large part of River Ganga Basin, under the National River Action Plan, the issue of river pollution has been addressed adequately through the Ganga Action Plan (GAP-I & GAP II) activities. In the first phase of the action plan the municipalities situated on the river that had been identified for action were Baranagar, Kamarhati, Khardah, Panihati & Bhatpara. In the second phase the municipalities identified for the action plan included Halisahar, Kanchrapara, Barrackpore, North Barrackpore, Naihati & Khardah. The Core activities of GAP include inception and diversion of sewage through sewage treatment plant, construction of sewage treatment plant and oxidation ponds, compliance with permissible standards for liquid effluent and solid wastes discharged from industries located on the bank of the river. The Non Core activities include improving the quality of river water so that water quality conforms to the drinking water quality with conventional treatment/ Outdoor bathing and so that aquatic life can survive in the river and so on.

Figure 10.3.1: Ichhamoti River



The most endangered river of the district is Ichhamoti. The river originates from a bifurcation of the Mathabhanga River which enters West Bengal from Padma in Bangladesh. The bifurcation took place in

Indo-Bangla border near Majdia (Nadia district). The other branch of this bifurcation is Churni which traverses a comparatively shorter distance and falls into Bhagirathi near Ranaghat. Ichhamoti having a much longer course (about 208 km) debauches into Kalindi in Hasnabad (North 24 Parganas) ultimately discharging into the Bay of Bengal. According to the Geomorphological structure of the river the entire stretch can be divided into four reaches among which the stretch between Bongaon and Tentulia (approximately 52 km) is the most problematic causing maximum damage and decay to the river. Heavy silting along this course, aided by tidal backflow and numerous man made barriers has turned the area to a chronic siltation zone. The resulting rise in the river bed has not only resulted in frequent flooding and inundation of the river banks in this particular zone but has also reduced the water flow from the origin. This is so as Churni which having not been affected at all by the siltation problem has a much lower bed and attracts a major flow of water from the mother river Mathabhanga. The result has been disastrous for Ichhamoti as this has led to further siltation along the river bed severely reducing the flood carrying capacity of the river. Among the man made problems that engulf this zone two are worth mentioning, First, indiscriminate encroachments of the spill areas of the river and human interferences in the form of fishery-berries, brickfields, fishing pattas, dumping of garbage etc and Secondly uncontrolled flow of water into river Ichhamoti from adjoining Bangladesh through different spill channels.

Due to prolonged water logging in Bagdah, Bongaon, Gaighata, Baduria, Swarupnagar and Basirhat-I block due to poor drainage condition in river Ichhamoti, loss of crop damage used to occur every year. Following the inundation in the year 2004, monetary loss of crop damage in 11761.04 Ha area was estimated to be Rs. 10,29,51,580.00, according to the Executive Engineer, Bidyadhari Drainage Division of the district. Loss due to damage of households and agricultural land was estimated to be Rs. 5,70,000.00 and Rs. 26,00,360.00 respectively.

Re-excavation of river Ichhamoti was taken up during 2005-06 for the portion from BSF bridge at Kalanchi near Berigopalpur (132.50 Km) to 2 Km downstream of Tentulia Bridge (157.40 Km) in the District of North 24-Parganas for a length of 24.90 Km. Administrative cost sanctioned for the scheme was Rs. 2548 lakh. Final expenditure incurred for execution of the scheme had been Rs. 2429.82 lakh. The work was commissioned in February 2006 and it was completed by July 2006.

Tentulia Bridge for a length of 24.90 Km by using floating type dredger mounted on pontoon with a view to augmenting its carrying capacity and thereby reducing the problem of drainage congestion. Proposed bed level has been so selected that it conforms to the existing bed slope beyond 2 Km downstream of bridge at Tentulia. Excavated material was partly utilized for raising and strengthening of marginal embankment on both banks of the river. While the remaining portion of dredged earth was disposed off at suitable locations beyond the existing bank line.

Out of savings in the tender during execution of the scheme, one supplementary work was also executed. This was for re-sectioning of river Jamuna which outfalls into River Ichhamoti at Tipi. The work was for a length of 9 Km from Tipi to Charghat Bridge. Execution of this supplementary work improved drainage scenario of Jamuna Basin at the lower reach by reducing congestion period. In a conservative estimate, Annual Average Benefit out of re-excavation of Ichhamoti and re-sectioning of River Jamuna was found to be more than Rs. 14 Crs.

10.4 Management of Sunderban Biosphere

There are 6 blocks in the district that belong to Sunderban Area (SA). Villages in these blocks perennially suffer from natural disasters. The basic reason is to be found in the special ecology of this region. The

region belongs to the vast Ganga-Brahmaputra delta region with its estuarine System and intricate coastline in which the land formation process is yet to be over. The Sundarbans consists a cluster of deltas crisscrossed by numerous distributaries. The deltas constitute a low flat region susceptible to tidal waves. Such tidal waves are very common in 260 km along the Bay of Bengal from Hooghly to Megna. The Sundarbans region is considered as the region of active delta. Dampire Hoges line delineating Sundarbans however, also include stable delta of the north, comprising western Hooghly side flat area, middle mature delta and Piyali-Bidyadhari plains. Villages in Minakhan and Haroa belong to this Piyali-Bidyadhari plain. More problematic is the active delta region of the southern part comprising western Sundarbans margin, the middle Sundarbans and eastern Sundarbans. Villages in Hasnabad, Sandeshkhali and Hingalganj blocks of the district belong to the middle and eastern Sundarbans part. The low flat region here is more vulnerable to cyclones and tidal waves. The forest area in the south serves as buffer to the villages as and when the cyclones and tidal waves hit the coastal region.

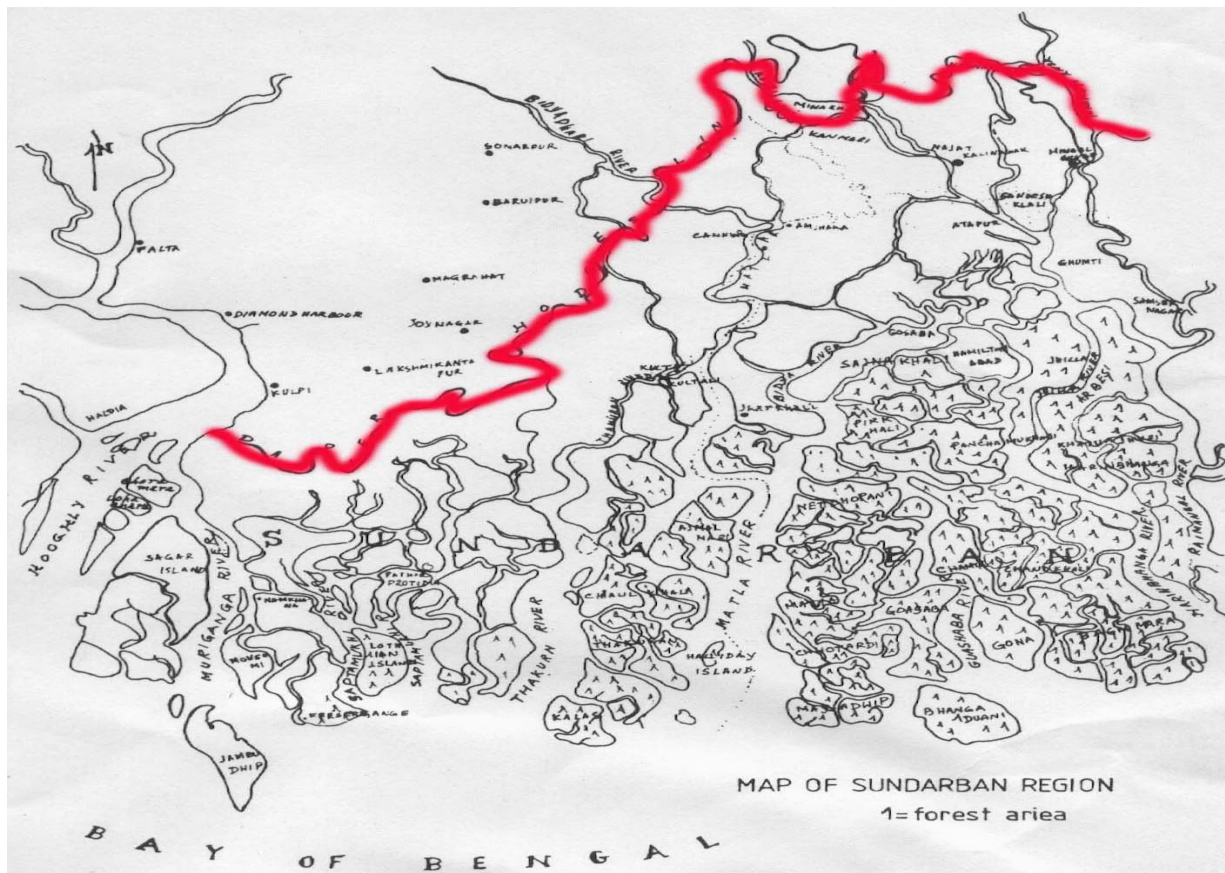
In Sundarbans there are two types of forests- Salt-Water Heritiera forest and Low Mangrove. Both of these forests have dense impenetrable undergrowth. At present, almost the entire forest area is under the reserve forests that constitute the forest area of the Sundarbans. The total expanse of Sundarbans is about 2.05 million hectares (8,000 square miles) out of which 0.79 million-hectare lies in the undivided district of 24 Parganas. Of this, only 0.42 million hectares (1,629 square miles or 10,43,000 acres) are under the reserve forests including about 0.19 million hectares covered by creeks and channels. Sundarban Forest Land in North 24 Parganas consists of 4221 hectare. Much of the forest area has been lost during the last century when the reclamation of Sundarban area took place under Zamindari system.

Typical trees in the Sundarbans are Gengwa, Passur, Keora and Sundari. The woods are usually used as posts or as firewood. The wood products from Sundarbans are not found to be robust enough to be utilised in wood industries for furniture. The forests are inhabited by no less than 50 species and sub-species of mammals. Wild pig, wild boar, spotted deer, tiger and leopard are some of the important mammals available in the Sundarbans. According to the District Gazetteer 230 species of birds can be located in Sundarbans. In Sundarbans, there exists a man-eating species of crocodile technically termed as *estuarine*. There are 7 species of turtles in the Sundarbans and there are 13 species of lizards and 17 species of snakes. The rivers are extremely rich in fish fauna. There are 55 species of marine fishes and 31 species of freshwater fishes in the district.

As we have pointed out, the Sundarbans delta forms the southern periphery of the district. The geographical location of the Sundarbans area makes it prone to natural calamities such as cyclones, thunderstorms with occasional hail and floods. The people, particularly those in the islands, live under a constant threat of floods and cyclones, which severely affect the habitation and damage the existing inadequate communication facilities. The total dependence on water transport coupled with inadequate landing facilities practically makes the area inaccessible during the rains.

There are more than 63,400 kms. of embankments which help sustain life in the inhabited areas. But the floods caused by high tidal bores, often wash away much of the embankments, already weakened and broken by earlier cyclonic storms. Timely repair, construction of the embankments and the quality, therefore, has already become a major issue requiring special attention on the part of the district administration.

Figure 10.4.1: Dampier Hodges Line Delineating Sundarban in India



At present, two kinds of embankments are being maintained — the *boundary bunds* and the *cross bunds*. The purpose of constructing boundary bunds is to keep away saline water of the nearby river from flooding agriculture and homestead lands. Cross bunds usually serve the purpose of connecting one settlement with the other, particularly in the low-lying areas. Nowadays, these are being utilised as local roads for the movement of the traffic. A major problem, however, is the excess water that should be drained out through better drainage by constructing sluices controlling water flow. The proper function of these sluices is expected to improve the drainage condition so much so that the farm production would also increase by an impressive amount. The cost of construction of sluice for controlling water flow being very high, not much progress has been achieved in this regard. Following the cyclonic storm of 2009 (AILA), the state government, with full financial support from the central government has taken up a programme of controlling water-flows by constructing sluices in the major habitats of this region. Better embankment has also been included in this reconstruction programme.

The management Sundarbans Biosphere Reserve has three major components, namely, restoration of the unique mangrove ecosystem of Sundarbans and conservation of its biodiversity; development of sustainable economic, social activities of the population living in the Biosphere Reserve and facilitating research, monitoring, education and training to perpetuate the achievements made. The state government has formed an autonomous body called Sundarban Development Board (SDB) for dealing with this programme managing Sundarban Bio-sphere Reserve. The main activities taken up by SDB include Protection of Mangrove Ecosystem through intensification of surveillance,

Habitat Improvement through soil conservation for stabilisation of the mudflats, Restoration of Mangrove Eco-system, Stabilization of the embankments, Conservation of the threatened species; Aforestation with fast-growing indigenous species. SDB also takes up programmes on Land Development. It also distributes seedling for planting on private lands. In order to reduce Man-animal conflict, issues related to preserving the bio-diversity of the Sunderbans are also being sensitized.

10.5 Disaster Management: AILA, 2009

In May 2009, the District was hit by high speed cyclone named 'AILA' and subsequent rainfall which continued for two days. This created a disaster in 20 out of 22 blocks of the district. 10 out of 27 municipalities of the district were also severely affected. The intensity of the cyclone was most severe in Sundarban region because the low flat region here is more vulnerable to cyclones and tidal waves. The forest area in the south usually serves as buffer to the villages as and when the cyclones and tidal waves hit the coastal region. This time however, the forest buffer could hardly restrain the high speed cyclone from creating disaster in the habitats of Sundarbans. The flood caused by high tidal bores, washed away much of the embankments, already weakened and broken by earlier cyclonic storms. All the 10 blocks in Basirhat Sub-division, which are nearer to Sundarbans were severely affected. 3 municipalities namely, Baduria, Basirhat and Taki were also in the list of severely affected areas.

Many parts of Sandeshkhali I and II as also of Hingalganj blocks remained marooned for at least one week. It was not possible to immediately evacuate all marooned people to safe places, the only alternative way to drop dry food and water to the affected people by means of sortie. The Air Force was requisitioned and deployed from 26-05-2009 to 30-05-2009.

As soon as the cyclone hit the areas, the District Administration mobilised its Human Resources and Relief Materials to the affected areas and started distribution with the help of Panchayat Raj Institution and other Agencies. As an initial measure, dry foods were procured locally for distribution among the affected people. Subsequently relief materials including tarpaulin, garments were received from State Government. These were immediately supplied downwards for the benefit of flood affected people. Within 2 days 221 camps were organized and the concentrated feed supply had been 91 MT. The government also supplied 50.38 MT paddy straw.

The Public Health Engineering Department supplied water pouches to the affected areas on a daily basis. Apart from this, SDO Barrackpore arranged water bottles from a private company and the SDO Kalyani Sub-division of Nadia arranged water pouches from Haringhata diary. These were promptly sent to the affected areas. Initial help also came from the Animal Resource Department of the Government of West Bengal. The Department arranged the continuous supply of water pouches and water trunks from its Dankuni Plant, Hugli. Water supply was also received from Border Security Force (BSF)

During the Disaster the BSNL Network was collapsed for a while. But with the help of BSNL Personnel the system was restored. In the meantime, BSF extended co-operation to install Radio Transmission System at the District Head Quarter as well as vulnerable points in the different affected Blocks. Later on HAM Radio was operationalised at the different Block Head Quarters along with the District Head Quarter.

After the initial crisis was over, disaster management now concentrated on the issues related to health, repairing of the embankments, dis-infection of tube wells, supplying rice, kerosene and petrol on urgent basis. The Health Department formed medical teams and sent them to different affected areas for treatment.

Subsequently, bleaching powder was supplied in order to preempt any outbreak of water borne diseases. 8 medical officers were deputed in Hingalganj. With them there were 41 para-medical persons. The number of doctors deputed in Sandeshkhali I had been 9. The number of para-medical persons deputed in this block was 45. The number of medical officers and para-medical persons in Sandeshkhali II had been 9 and 31 respectively. Adequate stock of medicines was being kept at the Block Primary Health Centres. They were being transported to different points, often by boats provided by local administration, NDRF etc.

The cyclone affected the livelihood of the people. Paddy fields remained inundated with saline water in many parts of Sandeshkhali and Hingalganj. As a result agricultural activities could not be taken up for many days following AILA. The loss of livestock was also very high. As estimated by the Animal Resource Development Department, due to cyclone 128829 goats, 126335 buffaloes, 51266 sheep, 24260 pigs were lost. The loss in poultry was of the order of 351024. The Fisheries Department has started to assess the damage caused by AILA. In both the departments necessary steps are now being taken for meeting the loss.

AILA has had a disastrous impact on the agriculture of Sundarbans. Almost an area of 47670 Hectares of cultivable area spread over 250 mouzas of 50 Gram Panchayats under nine blocks of this district have been effected by saline water inundation. Sweet water pond is the major source of irrigation during Rabi crop (summer season) in the affected areas and around 15783 sweet ponds have been affected in nine blocks. Both agricultural crops as well as horticultural crops namely vegetables, betel vine banana, papaya, etc have been damaged. As an emergency intervention paddy seed kits, fertilizer and organic manure kits have been distributed among affected farmers. A special intervention plan with budget has been prepared to counter the AILA effects.

CHAPTER - 11

Chapter 11

HUMAN DEVELOPMENT: A QUANTITATIVE ANALYSIS

11.1 Introduction

United Nations Development Programme (UNDP) captures inter-country or inter-region variation in Human Development in terms of 3 basic indicators related to health, education and income, respectively. Achievement in health related issues is captured by life expectancy at birth; educational achievement is usually proxied by the percentage of literate persons and income prosperity is usually measured in terms of per capita GDP for a nation (or per capita SDP for a province within a nation state). While preparing a report on Human Development in North 24 Parganas, we found it necessary to take up a quantitative analysis in terms of these three basic indicators of human development. The quantitative analysis is expected to address the issue of intra-district variation in terms of Human Development Index (HDI).

11.2 Inter-block Variation in Livelihood Opportunities

We would try to construct first the index values of income related information pertaining to 22 blocks of the district. At the very outset, we should point out that there is no official data on block level income or expenditure. The consumption expenditure survey conducted by NSSO does collect information from the sampled households in the selected villages. But then, the block or district specific sample size being small, no estimate is thrown by the NSSO at those levels. The SDP related information collected by the Bureau of Applied Economics and Statistics (BAE&S) does not also provide any information at the block level as regards (aggregate) income or expenditure. The Census 2001 tried to collect information on income and expenditure at the level of census villages. The available information however, is so poor that one can hardly construct a meaningful block level aggregate out of the Census 2001 data.

In order to address the income related issues of HDI, we therefore found it necessary to proceed in terms of an available proxy variable. The proxy in this regard was constructed by considering the Work Participation Rate (WPR) and the percentage of main workers in the workforce in the blocks of the district. The quality of WPR was captured by the percentage of other workers among the main workers (the rationale being the fact that average earning outside agriculture is higher). A simple weighted average of these percentages would somewhat capture the livelihood opportunity in a block. If the index value of livelihood opportunities is higher, the concerned block might be considered as a relatively more prosperous block.

The block level data on WPR was collected from Census 2001. Census 2001 also provided the information on the number of main workers and the number of other workers among main workers. These data were utilized for constructing the livelihood opportunity index for each block. Index values were calculated by assigning equal weight to WPR, percentage of main workers among total workers and percentage of other workers among main workers. The findings are reported in Table 11.2.1. In terms of livelihood opportunity Barrackpur II is the best among 22 blocks of the district. Barasat I comes next and Rajarhat with an index value of 0.62 ranks third (the difference between Rajarhat and Barasat I in terms of livelihood opportunity index is just 0.01). The worst is the scenario in Sandeshkahli II, a backward block in the riverine area of the district. The next index value is very low also in Hingalganj, another backward block of the district situated in the same region. The difference in livelihood index between the worst and the best block is 0.25. The inter-block variation captured by coefficient of variation of livelihood index values is also quite high in this district.

Table 11.2.1: Ranking of Blocks in terms of Livelihood Opportunity Index

Name of the Block	Population	2001 Total Workers	2001 % WPR	2001 % Main Workers among Total Workers	2001 % Other Workers among Main Workers	Livelihood Opportunity Index	Rank
Bagdah	219814	78757	35.83	84.26	29.01	0.50	19
Bongaon	344044	120681	35.08	83.94	33.88	0.51	18
Gaighata	285122	101333	35.54	86.91	45.69	0.56	7
Swarupnagar	226608	76768	33.88	82.92	31.67	0.49	20
Habra - I	165270	56723	34.32	86.13	52.64	0.58	5
Habra - II	134361	46498	34.61	82.47	46.99	0.55	11
Amdanga	165792	50416	30.41	87.14	39.64	0.52	14
Barrackpore - I	112882	38797	34.37	83.92	65.08	0.61	4
Barrackpore - II	80716	26199	32.46	85.93	84.85	0.68	1
Barasat - I	218199	72522	33.24	85.03	69.44	0.63	2
Barasat - II	169098	52067	30.79	83.40	53.93	0.56	8
Deganga	275350	85855	31.18	86.95	39.64	0.53	13
Baduria	247638	82759	33.42	86.11	41.38	0.54	12
Basirhat - I	147741	48644	32.93	85.91	51.55	0.57	6
Basirhat - II	189850	59571	31.38	85.95	49.44	0.56	9
Haroa	182522	58074	31.82	81.58	43.52	0.52	15
Rajarhat	138652	42054	30.33	86.99	68.88	0.62	3
Minakhan	168965	51866	30.70	81.50	42.11	0.51	16
Sandeshkhali - I	140476	47040	33.49	75.69	44.41	0.51	17
Sandeshkhali - II	136318	49460	36.28	61.76	31.02	0.43	22
Hasnabad	177521	65765	37.05	81.67	47.60	0.55	10
Hingalganj	156400	62090	39.70	68.96	33.21	0.47	21
Rural North 24 Parganas	2171124	716268	32.99	82.86	45.35	0.54	----

Source: Census 2001

Privation in terms of livelihood opportunities is not communicated properly if one concentrates only on Livelihood Opportunity Index (LOI). While constructing the HDI for each block, we would of course take LOI because LOI is the proxy to income, a variable which is needed for constructing HDI following UNDP guidelines. For probing the extent of privation in terms of income opportunities, one can construct another index which would describe the extent of poverty that might be prevailing in the blocks. The extent of poverty is usually described in terms of the percentage of BPL households in the block. BPL is designed to capture the extent of abject poverty, poverty translated in the absence of provision for minimum calorie intake. Poverty can however also prevail in such families that can get the minimum calorie equivalent to food but fail to maintain a standard of living which is much above the BPL level. In order to capture this reality we would modify the description by introducing some more variables which would indicate, directly and indirectly the extent of prevalence of poverty, not just within the BPL families in the blocks of the

district but also in such families which do not technically belong to the group of BPL households. The modified Human Poverty Index (HPI) was constructed by considering the percentage of illiterate people and the percentage of non workers. The illiterates were expected to be placed in low skilled jobs that would fetch lower wages. Non workers are to suffer from poverty because they are to depend on others for their survival. Among the group of people in the labour force, we considered agricultural labourers and the marginal workers who are known to earn less compared to the main workers and non-agricultural workers. The modified index was constructed for each block on the basis of the Census data 2001. The findings are reported in Table 11.2.2.

Table 11.2.2: Modified Human Poverty Index (HPI) for the Blocks of the District

Name of the Block	2001 Population	2001 Illiterates	2001 % Non Workers	2001 % Agricultural Labourers among Main Workers	% Marginal Workers among Total Workers	% Rural Families In BPL category	HPI Index	HPI Rank
Bagdah	219814	48.94	64.17	36.23	18.68	14.76	0.366	8
Bongaon	344044	44.14	64.92	30.52	19.14	27.7	0.373	10
Gaighata	285122	38.37	64.46	26.77	15.06	22.7	0.335	5
Swarupnagar	226608	47.27	66.12	31.53	20.59	27.21	0.385	14
Habra - I	165270	38.22	65.68	21.01	16.10	34.81	0.352	6
Habra - II	134361	43.46	65.39	26.03	21.26	31.75	0.376	11
Amdanga	165792	46.18	69.59	29.28	14.75	33.05	0.386	15
Barrackpore - I	112882	35.37	65.63	18.48	19.16	18.46	0.314	3
Barrackpore - II	80716	32.48	67.54	4.36	16.37	16.78	0.275	1
Barasat - I	218199	44.00	66.76	12.07	17.60	8.63	0.298	2
Barasat - II	169098	51.28	69.21	22.91	19.90	23.11	0.373	9
Deganga	275350	50.06	68.82	29.03	15.01	14.29	0.354	7
Baduria	247638	46.79	66.58	24.86	16.14	40.74	0.390	17
Basirhat - I	147741	57.35	67.07	18.99	16.40	31.32	0.382	12
Basirhat - II	189850	51.01	68.62	24.33	16.34	34.6	0.390	16
Haroa	182522	57.32	68.18	30.11	22.57	33.73	0.424	18
Rajarhat	138652	41.65	69.67	15.20	14.96	22.6	0.328	4
Minakhan	168965	64.43	69.30	34.76	22.70	38.42	0.459	20
Sandeshkhali - I	140476	62.31	66.51	34.74	32.11	59.7	0.511	22
Sandeshkhali - II	136318	59.85	63.72	41.66	61.91	27.21	0.509	21
Hasnabad	177521	56.60	62.95	20.70	22.44	28.69	0.383	13
Hingalganj	156400	46.12	60.30	27.28	45.02	44.5	0.446	19
Block Total	4083339	48.12	66.35	26.20	20.68	29.28	0.381	----

Source: Census 2001

In terms of HPI, low index values will represent a better scenario, i.e., less intensity of poverty. Barrackpur II again, is the best block. The HPI is 0.27 only. The second is Barasat II and Barrackpur I and not Rajarhat ranks third. The worst block that is the block in which poverty is most prevalent is Sandeshkahli I followed by Sandeshkhali II and Minakhan. The difference between the worst and the best block is again quite high. However, the coefficient of variation in HPI values is lower than what was found in case of LOI. We should also mention that correlation coefficient between LOI and HPI is as high as (-) 0.81. This indicates that human poverty has inverse relation with livelihood opportunity, a fact of life which has adequately been captured by the chosen indicators.

11.3 Health Services in the Blocks of the District

One of the components of HDI is the health related situation in the concerned area. UNDP captures the health related component of HDI by a simple and a very powerful all comprehensive indicator of health situation, namely, life expectancy at birth. The block level data on life expectancy being unavailable, we had to take a proxy. The proxy was conceptualized as a composite indicator that indicates the quality of public health services in the blocks which, inter alia would indicate the situation with respect to the life expectancy of the people living in the blocks. The composite indicator was derived by considering first two sub indices related to sanitation and availability of safe drinking water in the blocks. This would indicate the scenario with respect to the public health because the quality of public health much depends on the availability of safe drinking water and the condition of sanitation in the households. The percentage of population covered under government sponsored drinking water schemes provided the basis of constructing a safe drinking water sub index. Percentage of households covered by the Total Sanitation Campaign (TSC) was utilized for constructing sanitation sub index. The background information along with the findings are reported in Table 11.3.1.

Table 11.3.1: Index Values of Safe Drinking Water and Sanitation in the Blocks of the District

Name of the Block	Population 2001	2001 Population fully or partly covered by DW Schemes	Safe Drinking Water Sub-Index	Number of Households (RHS 2007)	Households Covered by Sanitation Schemes (2008)	Sanitation Sub Index
Amdanga	165792	43230	0.26	45025	15853	0.35
Baduria	247638	133842	0.54	61621	18099	0.29
Bagdah	219814	96179	0.44	49566	29639	0.60
Barasat - I	218199	66392	0.30	53592	18195	0.34
Barasat - II	169098	31195	0.18	50021	14175	0.28
Barrackpore - I*	112882	—	—	29926	13333	0.45
Barrackpore - II	80716	53112	0.66	42997	7335	0.17
Basirhat - I	147741	86195	0.58	41345	17077	0.41
Basirhat - II	189850	109267	0.58	41567	24438	0.59
Bongaon	344044	81215	0.24	95584	34917	0.37
Deganga	275350	61131	0.22	53468	33363	0.62
Gaighata	285122	85471	0.30	81779	28885	0.35
Habra - I	165270	84699	0.51	50192	25236	0.50

Table 11.3.1:Contd.

Name of the Block	Population 2001	2001 Population fully or partly covered by DW Schemes	Safe Drinking Water Sub-Index	Number of Households (RHS 2007)	Households Covered by Sanitation Schemes (2008)	Sanitation Sub Index
Habra - II	134361	46587	0.35	35374	19126	0.54
Haroa	182522	54867	0.30	42227	26447	0.63
Hasnabad	177521	103042	0.58	41234	26075	0.63
Hingalganj	156400	51374	0.33	40706	24339	0.60
Minakhan	168965	54392	0.32	36355	24707	0.68
Rajarhat	138652	65984	0.48	32573	5687	0.17
Sandeshkhali - I	140476	34211	0.24	33063	25836	0.78
Sandeshkhali - II	136318	41219	0.30	32042	18529	0.58
Swarupnagar	226608	73661	0.33	58162	21265	0.37
Rural North 24 Parganas	4083339	1457265	0.36	1048419	472556	0.45

*Covered by Municipal PWSS

Source: District Health Office

For the composite health index, we then constructed another set of sub indices related to childbirth and immunization. The supporting information was collected from the office of the DMO, North 24 Parganas. The background information along with index values of immunization and safe delivery pertaining to each of the 22 blocks of the district are reported in Table 11.3.2.

Table 11.3.2: Index Values of Immunization and Safe Delivery in the Blocks of the District

Name of the Block	Name of the BPHC/RH	2008 Target for Immunisations	2008 BCG/OPV/DPT/Measles Immunisations	Immunisation Sub-Index	2007-08 estimated Attended Deliveries	2007-2008 Live Births	Safe Delivery Sub-Index
Amdanga	Amdanga BPHC	16085	14082	0.88	599	1717	0.35
Baduria	Baduria RH	23310	20694	0.89	1501	3920	0.38
Bagdah	Bagdah RH	17965	15742	0.88	1845	3236	0.57
Barasat - I	Chhotojagulia BPHC	22360	20060	0.90	998	1659	0.60
Barasat - II	Madhyamgram RH	18635	19566	1.05	1825	2670	0.68
Barrackpore - I	Nanna Block	12010	11136	0.93	2314	2311	1.00
Barrackpore - II	Bandipur BPHC	14510	14969	1.03	1825	4468	0.41

Table 11.3.2: Contd.

Name of the Block	Name of the BPHC/RH	2008 Target for Immunisations	2008 BCG/OPV/DPT/Measles Immunisations	Immunisation Sub-Index	2007-08 estimated Attended Deliveries	2007-2008 Live Births	Safe Delivery Sub-Index
Basirhat - I	Shibhati BPHC	14335	12778	0.89	314	2413	0.13
Basirhat - II	Dhanyakuria BPHC	18785	19115	1.02	1499	3344	0.45
Bongaon	Sunderpur BPHC	26470	25634	0.97	612	2347	0.26
Deganga	Biswanathpur BPHC	28415	24805	0.87	1649	3532	0.47
Gaighata	Chandpara BPHC	21305	19305	0.91	1075	1075	1.00
Habra - I	Maslandpur BPHC	15815	14319	0.91	459	967	0.47
Habra - II	Sabdulpur BPHC	14630	13006	0.89	529	1590	0.33
Haroa	Horoa BPHC	18865	16516	0.88	1299	3683	0.35
Hasnabad	Taki RH	17660	16347	0.93	488	3085	0.16
Hingalganj	Sandelerbil BPHC	13855	12366	0.89	299	1654	0.18
Minakhan	Minakhan RH	18430	14896	0.81	1548	2919	0.53
Rajarhat	Rekjoani BPHC	14455	14203	0.98	333	1387	0.24
Sandeshkhali - I	Ghoshpur BPHC	14570	13472	0.92	811	2622	0.31
Sandeshkhali - II	Sandeshkhali RH	14130	12829	0.91	251	1571	0.16
Swarupnagar	Sarapole RH	19030	16497	0.87	419	2700	0.16
Rural North 24 Parganas	---	395625	362337	0.92	22492	54870	0.41

Source: District Health Office

The weighted average of all the sub indices constituted combined health service index with respect to the blocks of the district (equal weights were given to each sub index value). The findings are reported in Table 11.3.3. In terms of the combined health service index, Sandeshkhali II, which is one of the most backward blocks ranks first. The second is Basirhat I and Minakhan, another backward block ranks third among the 22 blocks of the district. According to the data, the worst is the scenario in Barasat II and Bagdah is placed just above Barasat II. Barrackpur II where the income poverty is expected to be the lowest is placed in the 20th position in terms of combined health service index. We would submit that this was only expected given the fact that many of the households in more prosperous blocks do not depend on the state sponsored health care services. The HDI that would be calculated on the basis of this health services index would fail to capture this reality. However, this problem cannot be addressed due to non-availability of data on private health care services.

Table 11.3.3: Health Services Index Values for the Blocks of the District

Name of the Block	Sanitation Sub-Index	Rank	Safe Drinking Water Sub-Index	Rank	Immunisation Sub-Index	Rank	Safe Delivery Sub-Index	Rank	Combined Health Services Index	Rank
Amdanga	0.35	17	0.33	10	0.97	5	0.68	3	0.58	8
Baduria	0.29	19	0.48	7	1.03	2	0.38	11	0.55	13
Bagdah	0.60	6	0.00	22	0.87	21	0.16	19	0.41	21
Barasat - I	0.34	18	0.32	12	0.91	10	0.26	16	0.46	17
Barasat - II	0.28	20	0.24	18	0.81	22	0.16	21	0.37	22
Barrackpore - I*	0.45	12	0.30	16	0.93	7	0.41	10	0.52	15
Barrackpore - II	0.17	22	0.33	11	0.87	20	0.31	15	0.42	20
Basirhat - I	0.41	13	0.51	6	0.93	6	1.00	1	0.71	2
Basirhat - II	0.59	8	0.58	2	0.89	16	0.16	20	0.55	12
Bongaon	0.37	15	0.30	15	0.88	18	0.53	6	0.59	6
Deganga	0.62	5	0.18	21	0.91	9	0.45	9	0.54	14
Gaighata	0.35	16	0.58	3	0.88	17	0.18	18	0.50	16
Habra - I	0.50	11	0.22	20	0.92	8	0.13	22	0.44	18
Habra - II	0.54	10	0.24	19	0.98	4	0.60	4	0.59	7
Haroa	0.63	4	0.30	13	0.91	11	0.47	8	0.58	9
Hasnabad	0.63	3	0.44	8	0.89	14	0.33	14	0.57	11
Hingaljanj	0.60	7	0.66	1	0.88	19	0.24	17	0.59	5
Minakhan	0.68	2	0.54	5	1.05	1	0.35	13	0.65	3
Rajarhat	0.17	21	0.30	14	0.89	15	0.35	12	0.43	19
Sandeshkhali - I	0.78	1	0.26	17	0.89	13	0.47	7	0.60	4
Sandeshkhali - II	0.58	9	0.58	4	0.90	12	1.00	2	0.76	1
Swarupnagar	0.37	14	0.35	9	1.02	3	0.57	5	0.58	10
Block Total	0.45		0.36		0.92		0.41		0.53	

*Covered by Municipal PWSS

Source: District Health Office

11.4 Education Index

Literacy rate is widely used as a measure of educational attainment of a society. While calculating educational index, we did consider the literacy rate, as given in Census 2001. We however, tried to introduce more detailed information while constructing this index. We constructed the current literacy rate in 15 plus age group (projected). The gross enrolment rate as given by DISE was also utilized for providing information on school going behaviour of the children in 5-14 age group. The projected population in 5-14 age group in 2008 was calculated by considering the growth rate of children in this cohort on the basis of the number of children as given in 1991 and 2001 Census. The combined educational index was constructed by placing equal weight to the three sub indices (7 year plus literacy rate, 15 year plus literacy rate and GER). The findings are reported in Table 11.4.1.

Table 11.4.1: Combined Educational Index Values for Blocks of the District

Name of the Block	Population 2001	2008 Projected 15y+ Population	2001 7y+ % Literacy	2008 Projected 15y+ % Literacy	2008 Projected 5-14y Population	2008 Total P/U Enrolment (DISE)	2008 Gross Enrolment Ratio (GER)	Combined Education Index	Rank
Amdanga	165792	140329	71.38	77.16	46001	30534	0.66	0.50	14
Baduria	247638	206206	70.62	81.16	67860	40747	0.60	0.51	11
Bagdah	219814	186037	66.59	78.09	59535	36234	0.61	0.48	16
Barasat - I	218199	198743	72.26	89.72	62121	32383	0.52	0.54	4
Barasat - II	169098	126503	68.97	88.06	43136	27754	0.64	0.53	6
Barrackpore - I	112882	108099	77.70	96.11	31579	14462	0.46	0.58	2
Barrackpore - II	80716	65040	79.84	100.00	19103	14234	0.75	0.61	1
Basirhat - I	147741	121445	62.27	77.29	41393	22399	0.54	0.47	19
Basirhat - II	189850	152781	68.03	78.69	51585	29919	0.58	0.49	15
Bongaon	344044	298036	70.74	83.22	94095	54405	0.58	0.52	8
Deganga	275350	234477	68.34	82.63	77363	41670	0.54	0.51	12
Gaighata	285122	248968	74.85	81.36	76426	43534	0.57	0.52	7
Habra - I	165270	140287	76.63	82.18	44154	28188	0.64	0.53	5
Habra - II	134361	107518	73.15	80.65	35145	23715	0.67	0.51	9
Haroa	182522	149053	62.82	78.36	51093	31928	0.62	0.47	17
Hasnabad	177521	140312	63.45	76.36	48733	29318	0.60	0.47	18
Hingalganj	156400	125131	70.07	81.92	40982	25389	0.62	0.51	10
Minakhan	168965	131192	58.65	69.50	47903	32572	0.68	0.43	22
Rajarhat	138652	108016	74.83	93.56	33995	24813	0.73	0.56	3
Sandeshkhali-I	140476	108313	58.45	73.73	38349	25961	0.68	0.44	20
Sandeshkhali-II	136318	106511	59.31	70.83	36791	23032	0.63	0.44	21
Swarupnagar	226608	190326	69.15	81.44	61379	36692	0.60	0.50	13
Block Total	4083339	3390335	69.07	81.05	1104194	669883	0.61	0.50	---

Source: Census 1991, 2001 and SSA, North 24 Parganas

In terms of educational achievement Barrackpur II comes first. Barrackpur I, the adjacent block ranks second. These two blocks are adjacent to the metro city Kolkata. Rajarhat, another block adjacent to Kolkata ranks third. Expectedly, Minakhan is the worst performer. Minakhan is followed by Sabdeshkhali II and Sandeshkhali I, two backward blocks of the district in SA. Performance of Basirhat I, Hasnabad and Haroa had been poor, according to information contained in Table 11.4.1. The other point that we should highlight is the fact that Hingalganj ranks 10th in terms of combined educational index. Hingalganj, as we know is one of the most backward blocks of the district.

11.5 HDI in the Blocks of the District: A Quantitative Analysis

Given the index values in terms of Livelihood Opportunity, Education and Health Services for each block of the district, we can construct a combined index with the help of which one may understand the relative positions of the blocks of the district in terms of human development. We have calculated the HDI values based on these index values. Each sub index was given equal weight and the HDI was calculated accordingly. Needless to say, these HDI values are not comparable with what we get in State Development Reports and the UNDP Development Reports for the nation state. These HDI values were calculated by modifying the concepts behind UNDP HDI. One should therefore assign a different nomenclature to these index values. We would mention them as Modified HDI.

Table 11.5.1: Modified HDI for Blocks of the District: Equal Weights

Name of the Block	Livelihood Opportunity Index	Combined Education Index	Combined Health Services Index	HDI	Rank (HDI)
Amdanga	0.524	0.497	0.459	0.494	20
Baduria	0.536	0.508	0.526	0.524	13
Bagdah	0.497	0.484	0.620	0.534	9
Barasat - I	0.626	0.542	0.536	0.568	6
Barasat - II	0.560	0.526	0.550	0.545	8
Barrackpore - I	0.611	0.581	0.791	0.661	1
Barrackpore - II	0.677	0.612	0.567	0.619	2
Basirhat - I	0.568	0.467	0.504	0.513	14
Basirhat - II	0.556	0.491	0.657	0.568	5
Bongaon	0.510	0.515	0.458	0.494	18
Deganga	0.526	0.505	0.546	0.526	12
Gaighata	0.560	0.523	0.640	0.574	3
Habra - I	0.577	0.532	0.599	0.569	4
Habra - II	0.547	0.515	0.527	0.530	11
Haroa	0.523	0.473	0.539	0.512	15
Hasnabad	0.554	0.468	0.574	0.532	10
Hingalganj	0.473	0.509	0.500	0.494	19
Minakhan	0.514	0.429	0.585	0.510	16
Rajarhat	0.621	0.564	0.468	0.551	7
Sandeshkhali - I	0.512	0.443	0.565	0.507	17
Sandeshkhali - II	0.430	0.436	0.487	0.451	22
Swarupnagar	0.495	0.504	0.428	0.476	21
Rural North 24 Parganas	0.540	0.502	0.534	0.525	---

Source: Census 2001, District Offices, North 24 Parganas

In terms of modified HDI Barrackpur I is the most advanced block of the district. Barrackpur I is followed by Barrackpur II, the adjacent block. Both these blocks, as we have already mentioned are nearer to the metro city Kolkata. Blocks near Kolkata should be more prosperous, because Kolkata ranks first in terms of HDI according to State HDR. Such a logic however, fails to explain the fact that the third in terms of HDI is not any other block near the metro city Kolkata. Gaighata which is farthest from Kolkata metro, ranks third in terms of HDI, according to the quantitative information given in Table 11.5.1. Fourth is the position of Habra I, another block situated quite far off from Kolkata. Basirhat II, a block near Sundarbans region ranks fifth in terms of modified HDI. The worst of course is the position of Sandeshkhali I which is widely known as a backward block. Sandeshkhali I is followed by Swarupnagar and Amdanga. Hingalganj, another block in SA ranks 19th. Many of the blocks nearer to the District Headquarter (Barasat) are found to be placed at the median level in terms of modified HDI.

Table 11.5.2: Modified HDI for Blocks of the District: Lower Weight for Health Services Index

Name of the Block	Livelihood Opportunity Index	Combined Education Index	Combined Health Services Index	HDI	Rank (HDI)
Barrackpore - I	0.244	0.232	0.158	0.635	1
Barrackpore - II	0.271	0.245	0.113	0.629	2
Barasat - I	0.25	0.217	0.107	0.574	3
Rajarhat	0.248	0.225	0.094	0.567	4
Habra - I	0.231	0.213	0.120	0.563	5
Gaighata	0.224	0.209	0.128	0.561	6
Basirhat - II	0.222	0.196	0.131	0.55	7
Barasat - II	0.224	0.210	0.110	0.544	8
Habra - II	0.219	0.206	0.105	0.53	9
Hasnabad	0.222	0.187	0.115	0.524	10
Baduria	0.215	0.203	0.105	0.523	11
Deganga	0.21	0.202	0.109	0.522	12
Bagdah	0.199	0.194	0.124	0.517	13
Basirhat - I	0.227	0.187	0.101	0.515	14
Haroa	0.209	0.189	0.108	0.506	15
Bongaon	0.204	0.206	0.092	0.501	16
Amdanga	0.21	0.199	0.092	0.5	17
Sandeshkhali - I	0.205	0.177	0.113	0.495	18
Minakhan	0.206	0.172	0.117	0.495	19
Hingalganj	0.189	0.203	0.100	0.493	20
Swarupnagar	0.198	0.202	0.086	0.485	21
Sandeshkhali - II	0.172	0.174	0.097	0.444	22
Rural North 24 Parganas	0.216	0.201	0.107	0.524	

Source: Census 2001, District Offices, North 24 Parganas

The relative positions of the blocks in terms of the Modified HDI as developed in Table 11.5.1, are determined on the basis of equal weights for all the HDI related factors. This is what is typically done in this kind of exercise. One should however, remember that combined health services index utilised in our exercise has been developed on the basis of the variables that do not capture the contribution of private health care services in the district. But then, private health care services do play a major role in such blocks of the district which are nearer to the metro city of Kolkata. As we failed to capture the contribution of private health care services in determining the quality of life in the district, the combined health care services index as utilized in this exercise would introduce a bias in modified HDI which would be systematically against the blocks nearer to Kolkata. In order to take care of this issue, we had performed another exercise in which the relative weight of health care services index in modified HDI was reduced to 0.2. Instead of equal weights for all the indices we have now a different distribution of weights in which LOI and CEI were assigned 0.4 each and the residual 0.2 was assigned to modified health services index. The results are reported in Table 11.5.2. As one would expect, Gaighata, a block in the eastern border of the district which is quite far off from Kolkata, now ranks 6th. Habra I is relegated to the 5th position and the 4th position is captured by Rajarhat, a block near to the metro city Kolkata. Barasat I, which ranked 6th in the earlier description now ranks 3rd. Blocks at the median level do not appear to be distorted much in terms of relative positions, as we reduce the weight of the combined health services index. The blocks which were at the tail end did not gain as the revised HDI was calculated. This was only expected. These blocks had poor scores in terms of LOI and CEI. Even higher weights for LOI and CEI did not change the scenario substantially in favour of these blocks.

11.6 Deprivation and Development

The modified HDI was calculated on the basis of the block level data. The GP or the village level scenario with respect to deprivation and development cannot be described in terms of these data. There might however be intra-block variation in terms of various livelihood related indicators. In the concluding part of this report, we tried to address this issue by developing a GP specific Deprivation Index (DI) with respect to 200 Gram Panchayats of the district. Five indicators were considered in terms of the following specific variables.

- Primary Education proxied by Population served per Primary School.
- Health Services proxied by Population served by a health sub centre
- Financial Services proxied by Population served per commercial bank.
- Communication proxied by the proportion of GPs with 'approach road pucca.'
- Rural Electrification proxied by proportion of GPs having domestic power connection.

The focus was on the availability of infrastructural facilities that might help the residents with respect to education, health services, financial services, communication and domestic power supply. The selection of the variables was largely constrained by the availability of village level data with respect to various indicators of these facilities. We should add that this exercise did not address the HDI issue directly, because the livelihood opportunity related information was not utilized here.

The exercise was on relative deprivation. In order to assess the level of relative deprivation in terms of a quantitative indicator, we utilized the widely known index of deprivation. For calculating the index value of deprivation with respect to a village or a GP, the score of the concerned GP or the village with respect

to a given indicator is considered first by calculating the difference between the worst and the concerned GP or village with respect to that indicator. The index is developed by taking the ratio of this difference with that of the relative gap between the best and the worst village or GP in terms of the given indicator. If the index is noted as D_i and the indicator is described in terms of a variable X , the D_i for the i th GP, is then calculated as

$$D_i = (X_{\max} - X_i) / (X_{\max} - X_{\min}); 0 \leq D_i \leq 1$$

where:

D_i is the deprivation index value for the i th GP.

X_{\max} is the maximum score of a specific social indicator of development among all GPs

X_{\min} is the minimum score of a specific social indicator of development among all GPs

X_i is the score of the i th GP for a specific social indicator of development.

Thus from this model we see that the maximum value for D_i is 1, which is achieved when $X_i = X_{\min}$.

As one understands, the maximum value indicates that the concerned GP is the most deprived. Similarly, the minimum value of D_i is 0 which indicates that the concerned GP is least deprived with respect to the indicator. In our analysis we considered only 5 variables. The number of variables might be increased and with respect to each of them the relative positions can be ascertained

One may extend the discussion to consider a holistic index comprising all such indicators. This can be done by considering $\sum w_i x_i$ for each GP where $\sum w_i x_i$ the composite score, given that is $\sum w_i = 1$

This additive process can work provided we know the values of w_i . The degree of freedom can be closed for n number of indicators by suitably selecting w_i values for $i = 1 \dots n-1$.

In this report, we were interested to observe the GP specific achievement or deprivation in terms of the above mentioned 5 indicators. With the help of the concept of a Composite DI (CDI) as elucidated above, we then tried to describe the aggregate scenario with reference to 200 GPs of the district spread over 22 development blocks. We performed this exercise with equal weight for w_i for $i = 1..5$ (which in this case is 0.2).

The results are described in Table 11.6.1 where we present the block specific distribution of GPs according to CDI. As we have already pointed out, a GP would be considered as least deprived if the CDI score of the GP is zero. A GP should be considered as most deprived if the CDI score of the GP is one. We however, consider a quartile distribution of the GPs in terms of their CDI scores. The GPs in the first quartile would be considered as the most advanced GPs and the GPs in the fourth quartile will be considered as the most deprived GPs. The GPs in the second quartile are less deprived compared to the GPs in the third quartile.

As the results indicate there are 59 GPs that belong to the first quartile and there are only three GPs that belong to the fourth quartile. The frequency of the GPs is the highest in the second quartile. In the third quartile there are only 31 GPs. One may therefore conclude that inter-GP variation in terms of the five indicators of deprivation and development is not very high in this district. More than 50 percent of the GPs belong to the range 0.25 to 0.5. There are however, 59 GPs which are placed in most advantageous position in terms of the above mentioned indicators. Inter-block variation in terms of deprivation or development is however, quite high. For example, more than 50 percent of the GPs in Bagdah and Bongaon are placed in the first quartile. In Barrackpur I on the other hand there is no GP which belongs to the first

quartile. In Deganaga, 9 out of 13 GPs are placed in the first quartile. In nearby Harao on the other hand, only one GP belongs to the first quartile and there are 3 GPs in this block which are placed in the third quartile. One will not find any GP in Minakhan, Sandeshkhali I or Sandeshkhali II which are placed in the first quartile. In fact, 3 most deprived GPs of the district belong to this region (2 in Minakhan and one in Sandeshkhali I). Among 31 GPs which belong to the third quartile, 22 are in Haroa (3), Minakhan (4), Sandeshkhali I (3), Sandeshkhali II (6) and Hingalganj (6). It appears that relative deprivation is still a challenge that the district is facing.

Table 11.6.1: Block specific Distribution of GPs According to Composite Deprivation Index

	Block Name	Di Range				Total Number of GPs
		0-0.25	0.25-0.5	0.5-0.75	0.75-1.00	
1	Bagdah	5	4	0	0	9
2	Bongaon	9	7	0	0	16
3	Gaighata	4	9	0	0	13
4	Swarupnagar	2	7	1	0	10
5	Habra-I	1	6	0	0	7
6	Habra-II	2	4	2	0	8
7	Amdanga	2	6	0	0	8
8	Barrackpore-I	0	7	1	0	8
9	Barrackpore-II	1	3	2	0	6
10	Barasat-I	2	5	2	0	9
11	Barasat-II	2	5	0	0	7
12	Deganga	9	4	0	0	13
13	Baduria	6	8	0	0	14
14	Basirhat-I	2	4	1	0	7
15	Basirhat-II		5	4	0	0 9
16	Haroa	1	4	3	0	8
17	Rajarhat	2	4	0	0	6
18	Minakhan	0	2	4	2	8
19	Sandeshkhali-I	0	4	3	1	8
20	Sandeshkhali-II	0	2	6	0	8
21	Hasnabad	3	6	0	0	9
22	Hingalganj	1	2	6	0	9
Total		59	107	31	3	200

Source: Census, 2001

CHAPTER - 12

Chapter 12

WAY AHEAD

12.1 Introduction

The district of North 24-Parganas is spread over an area of 4094 Sq. km with a huge population of one crore approximately (89, 34,286 as per 2001, Census) which is almost 1 percent of the population of India. The population density of the district is 2182 per sq. km (2001 Census) as compared to state average of 903 per Sq. km. This district has a great diversity in terms of geographical area, livelihood pattern, standard of living, culture, language, nature and extent of urbanization, infrastructural facilities and other aspects of economy and society. The unique feature of the district is that 54 percent of its population lives in urban area comprising of 27 Municipalities and one Cantonment area, while the rest 46 percent of population live in rural area comprising of 22 Blocks. There are five Sub-Divisions in the district comprising of 1829 mouzas. There are 2923 Gram Sansads in 200 Gram Panchayats. The district possesses a part of Sundarbans having saline tracts; on the other hand there is rich alluvial tracts of Ichhamati Basin and a traditional industrial zone at Barrackpore. International Border of Bangladesh is also along the boundary of the district. This provides the horizon for planners and policy makers of the district.

12.2 Major Challenges

One of the major challenges of the district is that it has to cater to the needs of about one percent of Indian population within a tiny area of 4094 sq. km. High population density along with a high rate of increase in the population is indeed a problem for the district. Illegal immigration from Bangladesh, mainly along its eastern border and expansion of the State Capital i.e. Kolkata in the western part of the district is aggravating the threat of high population pressure.

There are areas in some parts of the district which remain vulnerable to inundation during rainy season largely due to over silting of rivers, canals, baors and beels. One may also mention that there are bordering areas which get inundated due to heavy water surcharge from Bangladesh during the rainy season. The coastal regions of the district are also vulnerable to cyclonic storm. Improper drainage system in urban areas due to unplanned growth is causing regular water logging in some Municipal areas during rains. The district faces a major challenge in providing proper conditions of living for its residents.

24.58 percent of total landmass of the district is now under non-agricultural use. The land records indicate that in 1990-91, the net-cropped area distributed over various size classes of landholdings was 574585 hectare. By 1995-96, it reduced to 369599 hectare. Within a span of about 15 years the land under agricultural crops in the district reduced by 314048 hectare (See Chapter 4). In this district, there is not a single piece of land which is barren or uncultivable. The land records also indicate that there is no land in any block which could be considered as cultivable waste. Whatever landmass the district possesses is under human use. The reduction in agricultural land is to be explained mainly by the fact that increased utilisation of land for non-agricultural purposes, particularly in the areas adjacent to Kolkata, changed the land use pattern of the district radically.

There is also a deceleration of agricultural growth in the recent times. The ecological foundations such as soil, water, bio-diversity and forests which are essential for sustained advances in productivity of agriculture of the district are now under severe anthropogenic pressures. For example, the quantity and quality of the ground water which is now the major source of irrigation is deteriorating very fast. In many parts of the

district, the animal population does not have a good grazing land. Technology fetishism has further aggravated the crisis. Since the agricultural economy in the district is basically a small peasant's economy, most of the peasants need sustainable market surplus in order to have immediate cash income so that they can pay for input costs which are increasing over time. Only answer to this problem for the 4.15 lakh small and marginal farmer families of the district is to depend increasingly on the technology driven enhancement of productivity. This in effect aggravates the crisis.

In urban North 24 Parganas, the industrial working class is suffering from job loss in large and medium sized industries. This is largely due to the fact that many of the industrial units in urban North 24 Parganas suffer from industrial sickness. As we have discussed in Chapter 5, technological obsolescence is the basic reason behind industrial sickness in traditional industries. The reluctance on the part of the industrialists for taking up modernisation in a big way aggravates the crisis. In many cases, the land under the possession of the old units are now being parceled out for business in real estates. Large scale 'suspension of work' causing job loss for the industrial workers has become a serious problem in the old industrial centers of the district. A large section of the workers are now being compelled to find out alternative sources of livelihood. This is causing a change in the livelihood pattern in these areas. Many of the jobless workers are trying to meet both ends by opening up small retail shops in the same locality. From street vending to odd jobs in the unskilled sector are the new areas that this section of the industrial workers is trying to adjust with.

Although the agricultural productivity in this district is quite impressive and North 24 Parganas is the district which produces 217.86 kg of cereal per rural population, 81.84 percent of the households in rural North 24 Parganas still suffer from shortage of food according to Rural Household Survey 2007. There are 307026 families in rural part of the district who live below the poverty line. The problem of poverty seems to be less severe in the municipalities of the district. The Urban Household Survey, 2006 informs that out of 947992 households which were covered in this survey in 25 municipalities of the district, 13452 (14.19 percent) of the households were living below the poverty line. The disquieting revelation is that there are some municipalities in which the percentage of BPL families was very high. For example, in Baduria municipality, the percentage of households living below the poverty line was 59.81. In Gobordanga municipality 47.88 percent of 10973 surveyed households were placed below the poverty line (UHS 2006).

The school dropout rate in the district is alarmingly high at upper primary level. SSA North 24 Parganas conducted a study covering all the students who were admitted in class-V in the year of 2002-03 in all the 22 Blocks, 1 Cantonment Board & 27 Municipalities of North 24 Parganas. A total of 124082 students were covered in this study. The Study revealed that only 42.74 percent of these students completed Upper Primary education in four years. 27.20 percent of the students in this cohort were repeaters. It was further observed that 4.1 percent migrated from the schools. The residual dropped out from schools. The drop out rate was thus 25.95 percent. Retaining the students in upper primary schools is a major challenge that the district is facing. The other problem is that the district does not have a good number of Vocational Training Institutes to train manpower that can be inducted in knowledge intensive industries. Again, there is no medical college in the district. Of late, a state run University has been established near the district headquarter. Even then, the need for skilled manpower can hardly be met by the existing institutional arrangements.

There are challenges in health care related issues as well. According to national norm, there should be a Primary Health Center (PHC) for 30000 rural population, in backward area the norm is one PHC for 20000 population. The district needs 78 more PHCs according to the national norm. It appears that there is

infrastructural gap in this regard in every block of the district except Barrackpore II (See Chapter 6). The data on the nutritional status of the children in 0-6 years age group, covered under ICDS reveal that a large number of children in the district suffer from malnutrition. Thus, out of 220563 children covered under ICDS in rural North 24 Parganas, the percentage of children with normal weight is only 52.03. 34.12 percent of the children fall in Grade I deficiency and for Grade II, the percentage is 13.63. One disturbing aspect related to the mothers who are expecting children is that a high percentage of the antenatal mothers registered under various BPHCs suffer from anemia. The average for the district is 43.04 percent (averaged over 2004-05 to 2008-09). In Gaighata the average number of mothers registered in the local BPHC was 4595. On an average 2344 of these mothers were found to be anemic. In most of the blocks, the average was more than 40 percent. The lowest percentage recorded in any of the BPHCs during 2004-05 to 2008-09 was 36.40 (Haroa). As we have pointed out in Chapter 6, institutional delivery is yet to be opted for in many cases of childbirth in rural North 24 Parganas. For example, in Baduria, which has even a rural hospital, the reported number of non-institutional delivery in 2007 was much higher than the institutional delivery, according to the official data.

In rural North 24 Parganas, the literacy rate among the male is 77.2 percent. For the female the literacy rate is 61.71 percent. In urban North 24 Parganas also, there is gender gap in literacy. The male literacy rate in urban 24 Parganas (N) is 89.93 percent. For the female it is 80.51 percent. Work participation rate is abysmally poor for the women. According to Census 2001, the WPR for the male in the district is 53.93 percent. For the female, the WPR is 11.33 percent. There are a few blocks in rural North 24 Parganas where the women's WPR is much lower than the district average. For example, in Amdanga, the female WPR is 5.59 percent. In Rajarhat, which is very near to the metro city Kolkata, the female WPR is 7.02 percent. As the women remain dis-empowered in economic pursuit of the family, there develops the situation in which they become vulnerable to various social forces which work against the women.

The large majority of women in North 24 Parganas are driven to marriage before they attain adulthood. The baseline survey (see Appendix) which collected the relevant information on the basis of a statistically regular survey covering 2600 households from urban and rural North 24 Parganas revealed that more than 80 percent of the children in rural North 24 Parganas get married before they attain adulthood. Even in the urban slum areas 70 percent of girl children are driven to marriage before they attain adulthood.

Inter-block variation in terms of livelihood opportunities is very high in this district. As we have discussed extensively in Chapter 11 of this report there are some blocks such as Sandeshkhali I, Sandeshkhali II and Hingalganj in which opportunities for better living remain rather low. There are blocks in which the percentage of BPL families is as high as 59.70. We have also observed that inter-block variation in terms of educational attainments or health service facilities is also very high in this district.

While highlighting the existing challenges, one should not forget to mention that the district was successful in meeting various other challenges in the past so much so that the district now stands third among all the districts of the state in terms of Human Development Index (HDI). The district has enormous potentiality of development which has to be explored.

12.3 Way Ahead

After 73rd and 74th Amendment of the Constitution, the emphasis now is on the participatory development. Institutions of Local Self Governments have been empowered to take up developmental activities as listed in the 11th and the 12th Schedules of the Constitution. Following Constitutional mandate every district has

now a District Planning Committee (DPC), constituted mainly by the elected representatives from various tiers of the Panchayat Raj Institution (PRI) with a District Planning Officer to assist the Committee in drawing a district development plan. DPC of North 24 Parganas prepares district development plans regularly. In order to meet the long term goals, the DPC of the district has prepared a perspective plan. The plan document has been prepared with a view to meeting the existing challenges, some of which have been highlighted in section 2 of this Chapter. The Gram Sansads and Ward Committees have been involved in preparing the perspective plan. Participatory contribution from the respective Line Departments has also been ensured while preparing the plan.

It has also been decided the district vision document will be given wide publicity at all levels with a view to generating more public response and participation of the people in the subsequent detailed planning process and the implementation of the plan so that there is wholesome and equitable development of the district.

The basic approach of the perspective plan is that the district should take a wholesome approach to human development with well being of the people at large as the core issue. The plan focuses on three basic issues of life, namely, the ability of the people to live a long and healthy life, universal access to education and access to resources for a decent standard of living.

Health and Education

In public health related issues, the perspective plan recognizes the immense possibility that is emerging under National Rural Health Mission (NRHM). One of the missions of the NRHM is to strengthen health service provision in the rural areas by appointing Accredited Social Health Activists (ASHA). ASHA is expected to work in close coordination with Angan Wari worker in providing health and counseling services to the communities and help in social mobilization at village level. ASHA is eligible for certain incentives to motivate her to work efficiently towards meeting targets for immunization, registration and full ANC & PNC of pregnant women. She also has to escort pregnant women to institutions for delivery and ensure that they receive benefits of referral transport. The district has a requirement of 2878 ASHA of which only 640 have been approved by the state government till 2009. 493 ASHA are now working in the villages of 5 backward blocks of the district. The perspective plan focuses on getting the approval of other ASHA workers and deploying them in the remaining blocks of the district.

As regards the issues related to public health, district is putting emphasis on Total Sanitation Campaign (TSC). The target is to cover all households of the district as also all schools, ICDS, SSK and MSK centres. Construction of public toilets at market or other places where people generally congregate is in the agenda of the perspective plan. A plan for setting up the garbage disposal units specially in urban areas, is also there in the perspective plan. Access to safe drinking water is the next issue that has been addressed in the perspective plan. The Public Health Engineering Department (PHE) has already a plan for providing tap water in selected set of locations, particularly in arsenic prone areas. Providing safe drinking water in all schools, ICDS, SSK and MSK centres has also been taken up in the agenda.

There are challenges in preventive health care system of the district. As we have discussed (Chapter 6), there are pockets in which complete immunization is yet to be achieved. The concerned BPHCs have been instructed to cover these outreach pockets. Measures for motivating the mothers to opt for institutional delivery under JSY scheme are also been taken with the help of Anganwari and health service workers at the grassroots level. The district has also a plan to increase the number of trained Dais. Proper documentation of birth and death and recording of health service related activities is now being taken up by the office of the CMOH and BMOH by using software based information technology. Putting emphasis on pre-natal and post-natal care to reduce MMR is another area of focus in the perspective plan. There are big challenges

in the nutrition related issues. As we have pointed out, in many areas, there are a large number of anemic mothers and under-weight children. The plan proposes to address this issue by improving the ICDS centres in terms of space in the building, cooking arrangement, location, access and reach out. Complementary feeding for the under-weight children and supplementary nutrition for the anemic mothers have been taken as areas of special focus in the plan document. Special initiative on improving the nutritional status of in and out of school girls is to be taken under Kishori Suraksha Yojana (KSY). On Curative health care services the perspective plan focuses on the optimum utilization and management of available resources. The resources that can be utilized better by properly planning the allocation of resources have been identified. The limitation of the static infrastructure is being addressed by encouraging the setting up of mobile dispensary for outreach pockets. The perspective plan puts emphasis on developing medical infrastructure in rural North 24 Parganas. In urban areas, the emphasis is on urban slums where the need appears to be intense. Casualty management with the help of telephone network is another area of emphasis in the perspective plan.

The district is yet to attain total literacy. 28.28 percent of women in the district were found to be illiterate in Census 2001. The perspective plan addresses this issue by reiterating the general motto that every citizen shall have access to education. For the children, the perspective plan puts emphasis on establishing SSKs for uncovered areas. In respect of children under distress special programmes for sending them to school and providing admissible grants to their guardians have been proposed. In the schools there are problems with mid-day-meal kitchen shed in many of the schools. The plan paper highlights this issue and proposes to mobilize local initiative (in the form of fund and labour) for addressing this issue. For universal literacy, the initial plan is to address the literacy related problems of the women in special areas. The perspective plan proposes to take special care in specific identified pockets where women literacy rate is abnormally low (less than 30 percent). For the girl children, there are various facilities that can be extended for such girl children who drop out at early age. Providing free text books and hostel facilities for girl students and initiating special programme for retaining the girl children in the school in the areas of girl trafficking are some of the highlights of this programme. The perspective plan also worked out a special strategy for migrant and disable girl children. Better monitoring of school education is a challenge that the state sponsored education system needs badly. The plan also addresses this issue.

Livelihood Support

There are several state sponsored schemes that address the livelihood related problems of the poor and the under-privileged. The scheme that guarantees 100 days jobs for unskilled workers, (known as NREGS) is the flagship scheme in this regard. As we have discussed (Chapter 9), progress in this regard is quite uneven across the blocks of the district. For example, in Swarupnagar block the number of days for which the job seeking households could be provided with job had been as high as 93 in 2008-09. In Barasat II block on the other hand number of days of employment for the job seekers was only 25 in the same year. The likely reason is that the delivery system could not be properly geared up in some blocks of the district. The DPC has taken this in consideration and programmes have been taken for sensitizing the issue at the grassroot level so that the gram panchayats and the GUs take active interest in implementing this programme.

The other important livelihood support scheme is SGSY which provides support to the SHGs in their income generation activities. The district may claim to have attained a measure of success in this regard. There are now 12208 SGSY groups functioning in the district. The target is to form 36624 SHGs under SGSY. These groups have already saved Rs 10 crores as group savings and the banks have extended Rs. 20 crores CC loan. Under various schemes of the SGSY supported SHGs, the public sector grants have extended Rs. 6 crores as scheme loans. One should also mention that a considerable number of such groups have been formed also by NABARD in this district. Many of these groups are functioning very well. In the

perspective plan it has been envisaged that the SHG movement in the district should get further support in the coming years. The district authority plans to cover the BPL households in general and the people living in backward villages in particular for promoting the SHG movement. It has been planned that the SHGs would be grouped in various clusters so that every SHG gets the benefit of scale. 18 clusters have already been formed. At the block level the district is now forming a federation of clusters for promoting training, monitoring and evaluation. The district has now block level SHG management team (BSMT) and GP level SHG Management Team (GSMT). The emphasis is now on promoting marketing of the products for which various steps have been taken (see Chapter 4).

The other poverty related measures include completion of pending works of land reforms, creation of 'Entitlement Card' and circulating such cards at the grassroots level so that people become aware of the entitlements. There are also programmes of skill up gradation of rural artisans and creating forward linkage so that the artisans get reasonable price of their products. Problems as regards proper implementation of NOAPS and IAY along with the other state sponsored livelihood related schemes that address various sections of the population have also been discussed in the perspective plan. It has been pointed out that there are problems with the delivery system that are to be addressed immediately. One important problem is with the capacity of the elected bodies. The DPC, North 24 Parganas in its meeting dated 12th August, 2006 chalked out the strategy for capacity building at all levels viz. all the tiers of Panchayats including Gram Sansad, Wards and Municipalities, and various Line Departments. Accordingly, Meetings and Workshops were organized at various levels repeatedly for necessary capacity building towards formulation of respective vision and subsequent preparation of perspective plan at respective level.

Inefficiency also crops up due to improper distribution of activities. The district has now completed the activity mapping and the areas of work have been identified with respect to each implementing authority. Multiplicity of authority often gives rise to inefficiency. With proper activity mapping, it is expected that inefficiency due to multiplicity of authority would be minimized. The DPC has been visualized as the apex organization that would discuss this issue and advice the district level authority accordingly. At the level of the DPC the entire workload has been distributed to the ten subject committees, in addition to the two statutory committees viz. Urban Development Sub-Committee and District Planning and Co-ordination Sub-Committee. The subject committees sat in numerous times for preparation of draft vision and its subsequent ratification in the meetings of the two statutory sub-committees.

Agriculture and Allied Agricultural Activities

In order to address the issue of deprivation in livelihood opportunities, the perspective plan takes a geographical area specific approach. The approach is based on identifying first the possible livelihood options that might be created on the basis of the potentiality of the area. Identification of the bottlenecks in executing the identified options is also to be taken care of. Setting up of achievable targets, keeping in mind the market forces is then suggested in the perspective plan. The perspective plan also points out that up gradation of skills available in the community for exercising the livelihood options in the identified area of economic activities has also to be taken in to consideration while executing a plan. The execution would be based on participatory approach with active participation of the concerned Line Departments. Motivating the people for contributing in the form of land, voluntary labour, material or cash donation is also considered as an essential component of this exercise.

The perspective plan has specific focus on meeting the challenges in the agricultural sector of the district. The Line Department has been asked to provide the detailed information on agro-climatic zones of the district and the suggestions on the specific crops, the horticultural and floricultural products that might be taken up in the identified agro-climatic zone. Such information is now available with the DPC and the crop

planning for the plan period has been done accordingly. Extension services that would be required for better agricultural practices have also been listed. In view of the fact that there had been degradation of the soil due to extensive use of chemical fertilizers and pesticides and also in view of the fact that the sub-soil water level of the district is declining fast, the emphasis now would be on setting up of required soil test units and taking necessary remedial measures for deficiencies along with motivating the peasants to use bio-fertilizers, vermi-composts and bio-pesticides. Water intensive crops are to be replaced with such crops that optimize the water use. The perspective plan intends to increase the irrigation potential of the district. At present about 67 percent of the cultivable land of the district is under irrigation. The plan is to increase the coverage by 3461 ha per year. Stoppage of indiscriminate ground water use through awareness and implementation of rules is also to be practiced in the district. The DPC decided to mobilize the Panchayats for executing this programme. At the same time the DPC plans to maximize the utilization of surface water through pond re-excavation, rain water harvesting and development of drainage systems with integration of local wisdom. Maintenance of river bunds and embankments specially in coastal areas has now being taken up thanks to the financial support that the district is receiving following the disaster due to aila in May, 2009.

Presently, only 5 percent of total requirement of pulses are produced in this district from an area of only 9937 ha. An additional area of 12420 ha has been planned to be brought under the cultivation of pulses during next five years. With respect to oilseeds it has been planned that a 10 percent increase in the production of oilseeds would be achieved during next five years by increasing both productivity and acreage under oilseed. Since a surplus of about 2 lakh MT of vegetables are being produced in the district emphasis has now been given on quality improvement rather quantity by application of bio-technology and cultivation of non-conventional vegetables that has an export market. With respect to horticulture the emphasis now would be on introduction of new crop varieties that might fetch better revenue. The district now is also planning to work for processing units with respect to banana, guava, mango and lichi.

Total production of milk, meat and egg in the district are 470.135 MT, 48985 MT and 265665 lakh respectively. In terms of per capita availability however, there is a shortfall of about 50 percent in case of milk, 26.6 percent in case of meat and 19.4 percent in case of egg (following ICMR recommendation). The 11th Five Year Plan of the district has taken this into consideration and has chalked out a strategy for increasing the supply. For increasing the supply of meat, emphasis now is on increasing the production of Goatery especially Black Bengal variety, through better management practice. The Department is now providing complete kit of inputs for facilitating the process. New areas of expansion for milch cow through proper selection of variety, fodder, artificial insemination, and formation of co-operative societies have been identified in this plan paper. There are 10900 broiler farms in this district. A great prospect exists in poultry in this district during the coming years. The department is extending the services through Pranibondhus for up gradation of poultry breeds and proper animal health coverage with respect to preventive and curative diseases. In unorganized sector, the state government has taken up a programme of distributing 10 lakh chicks among the women members of SHG. The district Animal Husbandry Department has a target to distribute 124800 RIR birds among 1040 groups having 10400 women members.

North 24 Parganas district is bestowed with all type of fisheries resources of immense potentialities. A sizeable section of the population earns their livelihood from production and trading of fish in rural and urban areas of the district. The Department has taken up a programme for expansion of areas of pisciculture especially fresh aqua culture through pond re-excavation. Training, formation of fishermen's co-operative,

establishing facilities of feed supply, storage and marketing etc. have also been taken up for promoting fish production in the district. The focus however is on strengthening the existing fishermen cooperative and formation of new cooperatives. Encouraging SHGs for pisciculture also forms a part of the programme during next five year. Welfare augmenting practices are also being taken up by the Line Department with the help of the local Panchayats.

Industry and Urban Development

The major challenge that the district is facing in the traditional urban settlements along the eastern bank of the river Ganga is that the old industries situated in these urban settlements are gradually becoming non-viable due to various reasons. There are various efforts to reopen the closed industries. However, the results are not encouraging. The district administration is taking endeavour to stop misuse of lands of closed units through tripartite discussions. Preparation of credit plans with the help of various banks and other financial institutions with a view to ensuring credit at the time of need has also been taken up. It should however be mentioned that as yet the results are not very promising.

Emphasis now is being placed on encouraging the setting up of new industries in the district. The biggest challenge in this area is the non-availability of land, particularly in the adjacent areas of Kolkata. The district is now preparing a land bank. The unused lands of the existing sick and closed units are also being taken into consideration while considering the possible areas in which the new units can be opened up. The problem however is complex in nature. The property rights often remain ill-defined which paves the way for a long process of litigation. The district is also putting emphasis on the development of physical infrastructure that would encourage new industries to choose North 24 Parganas as its destination.

In this context one should point out that the district is now getting the benefit of the highway projects of the Central and the State Government. For the district, the major thrust is on internalizing and optimizing the benefits that two major transport infrastructure projects of the State Government. The State Government has constructed a new expressway to connect NH34 and NH35 on the one hand and NH2 and NH6 on the other hand. On river Ganga, a new bridge, namely the Nivedita Setu has been constructed. The new expressway, namely Belghoria Expressway, belongs to North 24 Parganas. There is also a newly constructed expressway that connects NH34 via Kalyani in Nadia. All these have opened up a new prospect for industrial development in the district. The identifiable investment in this area is estimated at Rs.510 crore. The areas under North-24 Parganas District shall also stand to benefit from other major transport infrastructure schemes that may transcend the boundaries of the District.

The area along Kalyani-Dum Dum Expressway, the most part of which belongs to North 24 Parganas is gradually emerging as the new industrial complex. This is largely due to the fact that it has a very good regional transport linkage. With a view to preventing haphazard growth, KMDA is in the process of preparing a Land Use and Development Control Plan(LUDCP) for this area. It has already identified about 1000 acres of land along Kalyani-Dum Dum Expressway, where new industrial activities including human settlements can be accommodated in a planned manner. The perspective plan focuses on creating support services such as establishing new residential complexes, promoting schools and colleges and developing new commercial complexes. A major part of the new development would be taken up under suitable format of Public Private Partnership(PPP).

In KMDA municipalities adjacent to Kolkata, there exists serious infrastructural problems. The major arterial road remains congested even after expansion of its capacity in recent past. The transport system is likely to be a menace in next 15 years if the growth rate remains the same. There is regular encroachment of road and parking of vehicles is a big problem. Ganga which is the ultimate source of drinking water is threatened with pollution and the water treatment cost is increasing. Managing the water bodies in the municipal areas is a problem because of the ownership problem (whether the land belongs to the local municipality or the state government). There is no control over selling of land; the transaction comes to the notice of the municipalities after the sale is made and registration is over and the municipalities are approached for mutation. There is a plenty of unauthorized settlements; new habitations come up in low-lying areas causing drainage problem and regular water logging. The municipalities are facing space problem for solid waste dumping. The Bagiola Khal, the traditional canal in Dum Dum area has no carrying capacity at all. These municipalities, as a whole, have fewer natural resources; even the existing resources are being depleted and getting polluted.

The district planning committee is now putting emphasis on plan growth of municipal areas through implementation of comprehensive building plan. Zoning of municipal areas according to utility such as commercial, residential, industrial, is being planned whenever the possibility of re-structuring the map of the municipality emerges. For the old settlements, it is difficult to bring about changes. However, the municipalities are now trying to prevail upon the spontaneity in the growth process of the municipal areas. The municipalities are now putting emphasis on reduction of wastage of drinking water such as cleaning of clothes, bathing, other household uses etc. through awareness and policy formation. Deployment of common agency for drinking water and drainage is also being tried. Every municipality is now preparing land use map. For the municipalities adjacent to Kolkata, managing the river Ganga is a big problem because most of the land near Ganga is owned by Kolkata Port Trust. However, the municipalities, with the help of the Kolkata Port Trust is now utilizing the embankments of river Ganga for building up modern parks, roads and allied works. In the traditional industrial zone of Barrackpore the biggest problem is that due to closure of many industrial units there is a huge number of unemployed people. They are now living in many unauthorized slums without proper means of livelihood. The municipality and the district authority are now trying to workout sustainable means of livelihood by promoting SHGs and DWCUA groups.

The scenario in Bidhannagar Municipality is different from the other KMDA municipalities. Bidhannagar is a planned city developed by the Government mostly for residential purposes. The municipality has no land of its own. The land is a leased government property. It has only 14 own employees and other employees are drafted from other departments of the State Government. However, even in this municipality, there is an added area which is a non-planned one. Initially the population of the added area was only 3000. However, by now the population of this area has gone up to 40000 due to heavy emigration. There are about 3000 Jhuggis which are illegally constructed by the migratory population. The municipality is now addressing the problems of the added area. The future plan of action includes a programme for meeting the drainage problem in certain pockets of the added area. There is also a plan for rehabilitation of the people of this area as a part of the urban renewal plan.

In non-KMDA municipalities, the major problem is unplanned growth due to increased pressure of population. In many cases the town is spreading to the adjacent villages with no proper sewage or water connections. Due to unplanned growth, many areas lack proper road connectivity. In the district vision these issues are been taken into consideration. The non-KMDA municipalities have also prepared perspective

plan. The major emphasis is on ensuring safe water and proper sewerage. For water supply, the planned interventions focus on provision of treated surface water, in replacement of ground water based supplies, by way of not only of new WTPs but also by augmentation of the existing one and establishing a network of UGRs with booster pumps such that water can be supplied at the consumers end at required pressure. Of course, the municipal level distribution network will have to be accordingly expanded / augmented in order to take benefit of the various water supply facilities. This is being seriously looked in to by various municipalities.

Congested towns without proper sewerage now suffer from a great deal of water logging problem. The district perspective plan has an interventionist strategy that focuses on removal of congestion at the outfall channels. But then the urban local bodies need to revamp their existing drainage network so that they can take advantage of trans municipal drainage improvement facilities. Under Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the district has now 7 such schemes involving an investment of Rs. 285.3 crs. It is expected that by next 5 years the drainage network in many of the municipalities will experience much improvement. Some improvement in sewage facilities had been created under Ganga Action Plan (GAP). Unfortunately, such facilities could not be utilised properly because of the lack of integration of the municipal sewage network with those facilities. The strategy under JNNURM takes care of this problem. Under this Mission there is an investment of Rs. 2457 crs for improving the sewerage facilities in the municipalities. The scheme covers all the municipalities of the district. The emphasis is on providing integration of the town sewerage system with the GAP system. The JNNURM also provides fund for Solid Waste management of the municipalities. The district has already prepared SWM schemes with respect to 11 municipal towns in North 24 Parganas district at an estimated cost of Rs. 116 crs.

APPENDIX

1.1 Background

Socio-economy is one of the buzz-words of today's development field. The aim of the socio-economic baseline survey is to create an extensive and realistic picture of the socio-economic situation in the district. This chapter presents the overall methodology of the socio-economic baseline survey sampling criteria and the principle of village zoning.

The baseline survey is used by the policy managers to assess the impact of development intervention over a period of time. It also helps the project managers and policy makers to decide a suitable intervention approach as per the local needs. The socio-economic baseline survey is an instrument to assess the socio-economic condition of the population of the study area prior to the development intervention. Thus, the main purpose of the baseline socioeconomic survey is to fix the benchmark reference for different socio economic indicators which will help to gauge the difference achieved over a period of time. To be precise it can be put forward as

$$I = I_M - I_B$$

Where I is the Impact of Project

I_B is the measure of an indicator during Base Line Survey

I_M is the measure of same indicator during mid-term or end-term survey

The main purpose of the baseline survey is as follows

- to assess socio economic condition as they prevail in the study area and
- to provide quantitative and qualitative information to policy planners that they need during project planning or for development intervention programmes.

The socioeconomic baseline survey is a great opportunity to learn about the socio-economic condition of the study area.

1.2. Objectives of the study

The objective of the baseline data collection was following:

- a. To generate benchmarks on various indicators to measure the impact of project interventions at a future point of time
- b. To analyze quantitative and qualitative data to gather perception and issues related to programme implementation

1.3 Research Design

The baseline information was collected using a combination of both quantitative and qualitative research tools. Following research tasks were adopted to collect baseline information.

Research Task I – Household survey with the head of the household or spouse of the head of the household to generate detailed socio-economic and demographic data at household level and also to collect baseline information on access to safe drinking water and sanitation facilities.

Research Task II – Village level survey to gauge the profile of the village, mapping of natural resources, mapping of livelihood opportunities available in the village, and availability of facilities and institutions

Research Task III – The anthropometric survey was carried out in the same households to capture the baseline nutritional status of children.

1.4 Research Methodology

Combinations of structured and semi-structured tools were developed In order to collect base line information.

1.4.1 Quantitative Techniques

Structured questionnaires were used for capturing the information pertaining to the indicators identified for the survey. The following types of questionnaires / checklists were prepared for the study.

- ❑ Household particulars,
- ❑ Village Profile / Checklist

1.4.2 Qualitative Techniques

Discussion guidelines were prepared for SHGs and NGOs to assess the vulnerability issues and issues related to implementation of community micro projects.

The sequences of activities for the execution of baseline socio-economic survey were as follows:

- Identification of socio-economic indicators
- ↓
- Enlisting the variables for each of the indicators
- ↓
- Development of the questionnaire for each and every variable wherein the questions reveal the properties of the variables which can be measured
- ↓
- Taking expert comment from clients and external consultant for revision of schedules/questionnaire for the household survey
- ↓
- Pilot testing of the questionnaires
- ↓
- Translation of schedules in local language
- ↓
- Data collection for the baseline by field staff
- ↓
- Data Scrutiny & Coding and Content Analysis
- ↓
- Data compilation, entry and analysis at Analysis cell
- ↓
- Report writing based on the analyzed data

1.5. Sample Design

The socio-economic condition, poverty scenario, and development issues in the district widely varies across the region. Keeping these parameters into account the sample for current study was designed to

provide the district level estimates of the socioeconomic indicators. To compare different region the district was divided first in rural and urban area. A multi-stage sampling design was used to make the sample representative. The rural area has been divided in vulnerable area and non vulnerable area. Vulnerable rural areas are riverine area, the flood prone area of the district and the border area- the area within 5 Km of distance from the international boundary. Non-vulnerable area constituted all the villages which were neither in the border area nor in the riverine area. To ensure that enough variability is captured from vulnerable and non vulnerable rural area samples of equal size were drawn from each of the rural area. Thus the sampling approach has identified all the possible villages in the three rural areas and then randomly selected 20 villages from each of the area.

Zoning of Villages

The grouping of villages makes analysis easier to carry out. It must, however, be remembered that every village is unique and that the zoning presents, therefore, uniform picture of village situated in the same zone. All the villages were classified as border area, other rural area and riverine area village on the basis of location of village. Since the socio-economic situation in urban areas differs considerably from rural areas, urban areas are considered separately regardless of their topographic location Definition of urban area is extracted from the NSSO data.

Zones/Area

As a result, PSUs were divided into five distinct zones. The location of the village is used as the basis of definition in three zones while the forth and fifth zones are defined being based on urbanization .Thus, areas are grouped into rural (Areas 1 to 3) and urban (Area 4and 5). Urban area of the district was further classified as residential area and slum area. NSSO classification of the Urban Frame of Sampling was used for selecting residential area and slum area in urban locality. 24 urban residential UFS blocks and 20 Slum UFS blocks were selected for the survey randomly.

1.5.1 Sample Size

Assuming 5% precision and 95% confidence interval we obtained a minimum sample size of 384 HH for each of the comparable area by using the following sample size calculation formula.

$$n = \pi (1 - \pi) Z^2/e^2$$

Where ,n is the minimum sample size requirement for the study, e is the allowable error which has been fixed as 0.05 while drawing the sample, Z is the standard error associated with the confidence level and p is the proportion of population estimated to have a particular characteristic.

$$n = \frac{0.5 (1 - 0.5) 1.96^2}{0.05^2}$$

Considering the possibility of non-availability and non-consent of the beneficiaries, about 5 percent additional sample has been taken. With this allowance the sample size was worked out to 400 HH per cluster.

Design effect: At the last stage we assumed a design effect of 1.25 since it was a stratified sampling where the first strata was the village for rural area and UFS for urban area and ended up with a minimum sample size of 500 HH to represent each of the area or cluster.

1.5.2 Sampling of PSUs (Village and Urban Frame Sample)

Rural

Details of sampling methodology followed for the base line are outlined as follows:

- 1) Desired sample size of 20 villages from each of the area has been drawn by systematic random sampling. The steps followed for systematic random sampling are as follows:
 - a. All the villages in a area were arranged in order of population and cumulative population of all the villages was calculated.
 - b. Total population of all the villages in a area was divided by the required sample size, i.e. 20 village.

$$S \text{ (Sampling Interval)} = \frac{\text{Total population of all the villages}}{\text{Desired sample size}}$$

A random number was generated and first sampled village was selected from the village list arranged in ascending order of total population and similarly successive villages were selected by adding the sampling interval to the cumulative population of sampled village. The procedure was same for all the three rural areas. Following table 1.1 shows the total number of village and number of sampled village for each of the area. A total 1500 households were surveyed from 60 villages in the rural area.

Urban

Latest list of Urban Frame Survey Blocks designed by NSSO was used to develop the sampling frame for the survey. Stratum was formed on the basis of area type of UFS blocks residential and slum area.

Stratum -1- All slum Urban Frame Sample blocks of the district and

Stratus - 2- All Residential Urban Frame Sample blocks of the district

PSUs were selected from each of the strata independently. To cover 500 households from the slum area a total 20 Urban Frame Sample blocks were selected randomly from the first strata after arranging all the slum area Urban Frame Sample blocks in the district. Like-wise a total 24 Residential area Urban Frame Sample blocks were selected from the second stratum. Subsequent to that all the Block maps were purchased from the NSSO and 25 households from each of the Urban Frame Sample blocks were selected for the survey. A total 1100 Households were selected from the urban area for the survey.

Table 1.1 Block wise Number of Selected Village (Rural)

	Block Name	Other Area	Sample	Border Area	Sample	Riverine Area	Sample Riverine Area	Total	Total Selected
1	Amdanga	80	2	0	0	0	0	80	2
2	Baduria	87	2	10	1	0	0	97	3
3	Bagdah	80	1	26	2	0	0	106	3
4	Barasat -I	81	1	0	0	0	0	81	1
5	Barasat-II	77	1	0	0	0	0	77	1
6	Barrackpore-I	43	1	0	0	0	0	43	1

Table 1.1 Contd.

	Block Name	Other Area	Sample	Border Area	Sample	Riverine Area	Sample Riverine Area	Total	Total Selected
7	Barrackpore-II	21	1	0	0	0	0	21	1
8	Basirhat -I	30	1	32	3	0	0	62	4
9	Basirhat-II	68	1	0	0	0	0	68	1
10	Bongaon	115	2	28	3	0	0	143	5
11	Deganga	108	2	0	0	0	0	108	2
12	Gaighata	76	1	29	2	0	0	105	3
13	Habra-I	58	1	0	0	0	0	58	1
14	Habra-II	78	1	0	0	0	0	78	1
15	Rajarhat	38	1	0	0	0	0	38	1
16	Swarupnagar	37	1	29	3	0	0	66	4
17	Hasnabad	0	0	25	2	48	3	73	5
18	Hingaljanj	0	0	29	4	15	1	44	5
19	Haroa	0	0	0	0	90	5	90	5
20	Minakhan	0	0	0	0	74	4	74	4
21	Sandeshkhali-I	0	0	0	0	30	4	30	4
22	Sandeshkhali-II	0	0	0	0	24	3	24	3
Total Village		1077	20	208	20	281	20	1566	60

1.5.3: Selection of Household

In all the villages 25 households were randomly sampled and subsequently surveyed within the village. Sample households have been selected randomly from the list of households existing in a particular village. For selection of beneficiary households following steps were followed:

- Identified number of households to be surveyed for each sample village. (Say 25)
- Collected the list of all households from District house list (Say h)
- After receiving the total no. of households in a village, this number has been divided by the sample size relevant for that particular village. ($h/n = x$, x was identified as the sampling interval)
- Identified a random number between 0 and x (say z). The first household was identified as zth number household started from a particular household considering the first household. The second household was identified by adding x to z. This process was continued till the time the entire sample size for that particular village was achieved. In case any particular sample household was found closed or head of household not present during the survey, next sample household was selected for the survey.
- During selection of households Right Hand Rule was followed so that entire village can be covered and there was no duplication/ gaps in the coverage.

- In case the village was divided in different hamlets / settlement. Sample households were selected from each and every settlement in proportion to total population in those settlements to ensure the representative sample of the village.

Table 1.2 below shows the towns and selected UFS blocks. The primary sampling units were village in rural area and urban frame survey blocks in urban area.

Table 1.2: Selected Urban Frame Sample blocks and Town

Residential Area UFS			Slum Area UFS		
	Town	Frame Population		Town	Frame Population
1	Patulia	601	1	Dum Dum	726
2	Jafarpur	772	2	Titagarh	796
3	Dum Dum	630	3	Titagarh	640
4	New Barrackpore	620	4	Madhyamgram	550
5	Basirhat	606	5	Barasat	625
6	North barrackpore	610	6	Kamarhati	700
7	Khardah	695	7	Panihati	635
8	Halisahar	871	8	Kamarhati	680
9	Barrackpore	792	9	Kamarhati	630
10	Habra	670	10	South Dum Dum	650
11	Naihati	715	11	South Dum Dum	612
12	Bidhan nagar	653	12	Bhatpara	740
13	North Dum Dum	609	13	Bhatpara	740
14	North Dum Dum	615	14	Bhatpara	720
15	Baranagar	728	15	Bhatpara	710
16	Barasat	620	16	Bhatpara	625
17	Rajarhat-Gopalpur	710	17	Bhatpara	780
18	Kamarhati	660	18	Bhatpara	640
19	Rajarhat-Gopalpur	620	19	Bhatpara	800
20	Panihati	625	20	Bhatpara	610
21	Panihati	748			
22	South Dum Dum	650			
23	Bhatpara	540			
24	South Dum Dum	585			
Total number of RA UFS Blocks in the district		6442	Total number of SA UFS Blocks in the district		656

RA = Residential Area, SA = Slum Area

1.6.1 Data Processing in the Present Survey

Data scrutiny and cleaning are an integral part of Data Processing in the survey operation. This ensures that the information contained in the questionnaire is complete, recorded in the prescribed manner, internally consistent, and allows the editor/verifier to take appropriate actions when these criteria are violated.

It is important for proper interpretation of data that errors and inconsistencies are removed before data analysis. It needs to be strongly emphasized that cleaning of household data is not a trivial task. It has frequently proved in practice to be the most time consuming of all data processing tasks in a survey.

In household surveys, editing and cleaning generally need to be done at two stages; manually before coding and data entry, and subsequently by computer. Manual editing is required since, at the very least, questionnaires must be checked for completeness, legibility, identification and other important data items, prior to coding and data entry. Computer editing is a more detailed and complete application of the same editing rules. It is preferable, because of the possibilities of human error in, and inherent limitations of, the manual operation and because of errors introduced during coding and data entry.

The various steps of data editing/cleaning process are as follows:

- Field editing and correction
- Office editing
- Computer editing

1.6.2 Field Editing and Correction

For a household survey, scrutiny of questionnaires while the interviewers are still in the sample area is an essential requirement. Field editing permits access to the respondent for correction and additional information. At a later stage, once the questionnaires have been sent back to the office, it is rarely possible to get back to the households for additional information. Furthermore, only field scrutiny permits the discovery of consistent errors committed by particular interviewers in time for their re-training.

In the present baseline study, the actual collection of data was the responsibility of ORG MARG Research Ltd., enumerators and supervisors. Enumerators were drawn from the existing panel of the field staff. The data collection process was supervised by experienced supervisors and was controlled by a Coordinator.

ORG Centre for Social Research has already taken the steps so that the information provided in the questionnaire should be consistent at the field level. Besides this, there can be errors in the data received, which can be traced to these sources:

- Respondent providing inconsistent information
- Enumerator errors – omission, arithmetic, logical, column shifting
- Data entry – omission, column shifting
- Incorrect summation – row and/or column

In order to rectify these errors, the data was subjected to various consistency and logical/validity checks. These are computerized as well as manual procedures whereby for individual schedules mathematical accuracy is established and data elements are made consistent and compatible throughout the schedule.

1.6.3 Office Editing

It is advantageous to subject the questionnaires to another round of manual scrutiny at the head office. Whether the editing procedure is uniform in all the regions can be checked only here. This can also be treated as a check editing, i.e., verification of the editing done in the field. In addition, all the identification particulars of the questionnaire should be incorporated to prepare questionnaires for coding and data entry.

Unique identification no. (Interview no.) has been assigned to each questionnaire & code has been developed for the quantitative/qualitative questions present in the Questionnaire.

1.6.4. Computer Editing and Cleaning

This involves subjecting the questionnaires to a series of consistency checks to detect errors, both in transferring and punching of data. It ensures that the data collected are transferred to data disks without errors. Considerable time and effort go into planning, organization and collection of data and these will go waste if what is collected and what is tabulated are at variance. This will also affect the inferences drawn from the survey results. In this operation, we try to control non-sampling errors that creep in due to human errors, in computation and transfer of data.

1.7. Indicators

The first step for the baseline survey is to develop a comprehensive list of socio-economic indicators. This involves the identification of a set of indicators that can be used to measure the progress at reducing the poverty, and promoting the human development of the district. In this context two types of indicators have been identified , first outcome indicators like poverty , employment , education and health and secondly intermediate indicators which influence poverty and human development in its many dimensions such as service delivery and access to facilities..

Following are the broad indicators used for the survey.

1. Housing and Infrastructure

- (a) Type of dwelling
- (b) Households living in slum areas
- (c) Households having latrine facility in their houses
- (d) Households living in electrified dwellings
- (e) Households with access to safe drinking water

2. Income and Expenditure

- (a) Average Household Income
- (b) Household expenditure
- (c) Monthly per capita consumption Expenditure
- (d) Savings and Borrowings

3. Vulnerability and Food Security

- (a) Migration
- (b) Food Security

- 4. Livelihood and Productive assets**
 - (a) HH engaged in different livelihood activities
- 5. Health**
 - (a) Age at Marriage
 - (b) Infant Mortality
 - (c) Institutional deliveries
- 6. Education**
 - (a) Literacy (education level of Head of Household)
 - (b) School enrolments
 - (c) School drop-outs
 - (d) Reasons of Drop-out
- 7. Awareness and Participation of Rural people in Government Programmes**
 - (a) Access to anti-poverty programmes
- 8. Access to facilities and services at Village level**

