

CHAPTER-II

GEOGRAPHIC PROFILE OF DISTRICT OF DAKSHIN DINAJPUR

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2.1 Introduction

The life and livelihood of the tribal people is keenly related with the natural environment of the area. No other social group is as associated with nature as tribe. They are born and brought up in the lap of nature. They depend entirely on nature for their existence. Their relation with the natural environment is so intimate that their entire life is the celebration of this intimacy. Since long, the tribal people were living in the forests in close contact with nature. However, in present era, the situation has changed widely and their intimate relation with nature is no longer existent. Yet the impact of natural environment on the life of tribal people cannot be denied. Though the present research work is an attempt to study the socio-economic condition of the tribal people of the district of Dakshin Dinajpur, yet it demands a brief introduction of the geographic profile of this district as it has significant influence in determining the livelihood of the tribal people of this district. This chapter presents a brief discussion about the physical and demographic profile of the district of Dakshin Dinajpur.

2.2 Brief History of the Name Dakshin Dinajpur

Dakshin Dinajpur district has a brief history of its evolution. This district was once a part of the Dinajpur district of undivided Bengal. During British period, Dinajpur was a large district of the Bengal province though it was infamous for the unlawful activities of its residence.¹ The district came under the control of East India Company when it had started to rule over the Bengal. The opinion regarding the name Dinajpur varies widely. Hamilton has mentioned Dinajpur as the ‘**abode of beggars**’. About the origin of the name, he has opined that perhaps it originated from the name of Dinajpur family. King Ganesh belonged to this family. Elsewhere he has stated that perhaps there was a local prince, named Dinwaj or Dinaj and after his name, the area was known as Dinajpur.²

Sengupta in West Dinajpur District Gazetteer has presented a brief discussion on the derivation of the name Dinajpur. It is supposed that the name of the district is derived from the name of a local king, named *Dinaj* or *Danuj*. But, the controversy arises regarding the identity of this king because history shows that the Dinaj king was a king of Sonargaon. Hence, the possibility of the origin of the term ‘Dinajpur’ from the name of the king of

Sonargaon is not justified. This king might be the *Raja Ganesh*, the king of Gour whose title was *Danujamardana-Deva* and from his name the term Dinajpur might be evolved.³

The undivided Dinajpur existed up to the independence of India. At the time of independence in 1947, when India was partitioned, Bengal was divided into two parts, a part of it remains in India as West Bengal and the other part was included in the then Pakistan, specifically, East Pakistan. At that time, the district of Dinajpur also went through the same process and was divided into two parts. The main part remains under Pakistan as Dinajpur while the western part was included under India and named as West Dinajpur. This district was again divided on 1st April, 1992 into two sections— north (*Uttar*) and south (*Dakshin*). Finally, this southern part is named as Dakshin Dinajpur.

2.3 Physical Profile of the District

2.3.1 Physiography

The course of the river Ganga-Padma in West Bengal divides it into two distinct segments viz. North and South Bengal. Geographically, the North Bengal is divided into two major divisions— the Mountains and the Plains. Dakshin Dinajpur is the part of the Plain region which is further sub-divided into Peidmont, Active, Mature and Moribund zones. The Matured zone is characterised by undulating plain of slightly elevated low ridges or humps which is developed as a result of the dissection of the plain surface by the several streams of this region. This region is known as Barind land which comprised of older alluvium. The elevation of Barind land ranges between 27m to 45m. The Moribund zone is the lowest segment of the North Bengal Plain which is below 27m in height. This zone is further divided into Tal and Diara. Tal is the low-lying areas having a large number of marsh, bog etc. while Diara is the transitional zone between the Barind and Tal land, comprised of newer alluvium.

The major part of Dakshin Dinajpur district, elevation of which is below 27 meter is under Diara land while the undulating tract, observed in Tapan, Bansihari and Gangarampur block is the part of Barind land. A very small portion of the district is the part of Active zone which appears along the river Atrai in Balurghat sub-division.⁴ The Barind Tract is formed during the post-Pleistocene age by the deposition of huge amount of sediments brought by

the river Ganga and Brahmaputra. It is actually a fan which is again overlapped by the Teesta fan. This area is slightly elevated than the surrounding areas.⁵

2.3.2 Geology

The district of Dakshin Dinajpur is divided into five geological units. These are— the Barind formation, Baikunthapur formation, Malda formation, Shaugaoon formation and present day deposits. The Barind formation is found only in the upland of south-eastern part of district which is comprised of the oldest quaternary deposits. It is consisted of ferricrete-bearing brownish red sticky soil overlying thick clay and sand horizons. The major part of the district is of Baikunthapur formation which is mainly found in the flood plains of the district. It is consisted of sand, silt and clay. It is characterised by grey black surface horizon underlain by a mottled grey horizon and yellow green silty clay substratum containing calcareous nodules. The Malda formation is found in the western part of the district and is consisted of older sand, silt and clay. The Shaugaoon formation is found in the western margin of the district. It also consists of sand, silt and clay but there is no soil cover developed here. Lastly, the present day deposits are found in western part, confined in the Tangan river channel only.⁶

2.3.3 Climate

The climatic characteristic of this district indicates the presence of Tropical Monsoon climate in this district. The maximum temperature (Table 2.1) of 39°C is recorded in the month of April and May while minimum temperature of 8°C is found in month of February. The mean monthly temperature shows that May is the hottest month (32°C) while January and February are the coolest month (18°C). Having a Monsoon type of climate, in this district, the major share of rainfall occurs in Rainy season (from June to September) by the south-west Monsoon. However, the rain begins in the month of May and continues up to October though the distribution of rainfall is not even. Here, the maximum rainfall of 388 mm occurs in the month of June while November, December and January are the driest months when no rainfall occurs. Based on this Monsoon rainfall, the people of Dakshin Dinajpur cultivate the Kharif crops. But, as winter season is almost rainless, they have to depend solely on irrigation for Rabi crops. Besides, in the month of February, March and April little rainfall is recorded which helps in the Zaid cultivation in this district.

Table 2.1 Monthly Temperature and Rainfall in the District of Dakshin Dinajpur, 2014

Month	Temperature (in °C)			Rainfall (in mm)
	Maximum	Minimum	Mean Monthly	
January	26	10	18	-
February	28	8	18	45
March	34	15	24.5	1
April	39	23	31	5
May	39	25	32	138
June	37	24	30.5	388
July	36	25	30.5	238
August	36	24	30	239
September	35	23	29	256
October	35	24	29.5	18
November	31	14	22.5	-
December	29	9	19	-

Source: District Statistical Handbook, 2014'

2.3.4 Water Bodies

The district of Dakshin Dinajpur is interspaced by a number of rivers. The Atrai , Punarbhaba and Tangan are the three main rivers while a very small part of the course of Ichhamati and Yamuna flows over this district. At present, all the rivers of this district are almost dried up or flow in a narrow channel throughout the year, only in rainy season, the rivers are overflowed and sometimes inundate large area of the district. However, the situation was entirely different before. Strong has mentioned that the principal rivers of the district were once fordable by large size boat throughout the course in the district for long time.⁸

The Atrai is the most important river of this district. It enters the district through the north of Kumarganj from Bangladesh and after flowing through the block of Kumarganj and Balurghat,⁹ again enters Bangladesh where it finally merges into a branch of the Padma. Previously, the Atrai was one of the most important channels of the river Tista through which it discharged its water to Padma or Ganga. But, around 1787-88, Tista changed its course and finally joins with Brahmaputra leaving the Atrai as a major channel. Owing to this, the volume of water as well as the importance of Atrai reduces widely. Later, the river suffers from siltation which reduces its depth and turns into shallow channel though characterised by wide bed and perennial flow.¹⁰

The Tangan is one of the important rivers of this district which is basically a tributary of Mahananda.¹¹ The river originates in Bangladesh and enters India through Kaliaganj block of Uttar Dinajpur. In Dakshin Dinajpur, the river flows through the Kushmundi and Bansihari block and finally enters Malda.¹² At present, the River Tangan has lost its might as a large river of the district as mentioned in the Dinajpur Gazetteer by Strong when the fair-sized country boat used to run through this river.¹³ Presently, the channel overflows only in rainy season while for rest of the year, it is difficult to recognise it as a river.

The original name of the river Punarbhaba is Apunarbhaba which means not to reincarnate again. The myth related to the name Apunarbhaba is if any person bathes in this river will be liberated from the sufferings of re-birth.¹⁴ This river originates in Bangladesh from a marsh known as Brahmapukur and after flowing for some distance across Bangladesh, enters India at Gangarampur block. A very small part of the river Punarbhaba is found in Dakshin Dinajpur. It flows over Gangarampur and Tapan block of this district and then enters Maldah¹⁵ where it joins with the river Mahananda as its tributary.¹⁶ Like Tangan, earlier this river was also navigable.¹⁷ However, at present, the river flow is almost missing throughout the year except in rainy season when it overflows and sometimes inundates its bank.

Another river of the district is Ichhamati which enters the district through Kumarganj and forms the boundary between Kumarganj and Balurghat. It is a small river which flows almost parallel to the river Atrai and finally joins it at Radhanagar.¹⁸

The Yamuna is the shortest river in terms of its length of flow in this district. Its course in this district is limited to Hilli block only as it enters from Bangladesh near Hilli and after flowing across Hilli, again enters Bangladesh¹⁹ where it joins with the river Atrai. Earlier, it was one of the channels of the river Tista. The river is though small and narrow, yet its depth makes it navigable especially during rainy season.²⁰

Beside rivers, there are numerous tanks and ponds in this district. They comprise a good share of the water bodies of this district. Some of the tanks are so large that they can be easily comparable with the lakes, stretching for several hectares in area. The Tapandighi, Kaldighi, Dhaldighi, Mahipaldighi and Pransagar are the five most important tanks of this district. The Tapandighi is the largest. The name of this tank has little historical significance. The word 'Tapan' is derived from *Tarpan* which indicates a kind of religious

rites. It is believed that Valmiki, the author of Ramayana once bathed and performed *Tarpan* at the bank of this tank. So, the tank is named as Tapan. Similarly, the Mahipaldighi is named after the name of the king of Pal Dynasty, Mahi Pal who reigned over this area in ninth century.²¹ Apart from these tanks, there are several small sized tanks and ponds which are used for bathing, irrigation, pisciculture as well as the source of drinking water too. Now-a-days, for the presence of increasing number of tube wells, the tank water is no longer used for drinking purpose but it is tremendously useful for pisciculture and agriculture.

2.3.5 Soil

Geographically, the vast area of Dakshin Dinajpur is under Diara land and some portion is under Barind tract. The Barind tract is comprised of older alluvium as this elevated areas remains out of inundation for a long period. The soil is reddish in colour, which is due to the accumulation of sesquioxide and the removal of silicon from the soil. This occurs because of the weathering in this area.²² The soil sometimes turns into reddish-brown or yellowish too. It contains calcareous concretions known as kankar²³ which are lacking in the younger alluvium of Diara region. The soil of Barind tract is silty-clay while soil of Diara zone is clay-silt. As the Diara region is frequently flooded, it is covered by younger alluvium. The soil is alkaline in nature and dark-grey in colour²⁴ which is known as Khiar²⁵ in this area.

2.3.6 Natural Vegetation

The district is lacking in forest cover as only 0.36% area of this district is under forest cover, which is much lower than the standard limit of 33% of total geographical area. The total geographical area of Dakshin Dinajpur is 2219 sq. km out of which only 8 sq. km is under forest cover. The natural vegetation of West Bengal is divided into six major categories. These are— Tropical Moist Deciduous Forests, Tropical Dry Deciduous Forests, Sub-Tropical Broadleaved Hill Forests, Montane Wet Temperate Forests, Littoral & Swamp Forests and Alpine Forests which are further sub-divided. The forest of Dakshin Dinajpur is included in the category of Littoral & Swamp Forests-Tropical Seasonal Swamps of *Barringtonia*. Here, the major tree species is *Barringtonia acuteangula* i.e. *Hijal*.²⁶ Besides, Sal, Mango, Jack-fruit, red cotton tree, *Eugenia jambolana*, *Zizyphus Jujuba* etc. trees are also very common here. A large part of the district is also covered with scrub and grasses.²⁷

2.4 Demographic Profile of the District

The demographic profile of this district is represented through a brief discussion of its population size, decadal growth rate, sex ratio, literacy rate, work participation rate and occupational structure. This discussion helps to compare the demographic characteristics of the tribal people of this district with its overall demographic characteristics.

2.4.1 Population Size and Growth Rate

Dakshin Dinajpur is a small and marginal district of West Bengal. As per census 2011, the total population of the district is 1676276 persons which are about five times larger than the population in 1901. However, the growth rate of the population throughout the decades is not uniform. The table 2.2 shows that only the decade 1911-1921 has experienced a negative growth rate (-12.13%) while in the other decades, positive growth rate is recorded. The district has recorded a sharp increase in the growth rate after independence and in 1971 the growth rate has reached to maximum (+37.09%). It must be due to the Bangladesh Liberation War, '71 which caused a rapid influx of refugee from Bangladesh to this district. After 1971, the growth rate declined considerably and in 2011 it has reached to a much lower figure (+11.52%).

Table 2.2 Population Growth in the District of Dakshin Dinajpur

Census	Persons	Variation since the preceding census	
		Absolute	Percentage
1901	340,163	-	-
1911	363,212	+23,049	+6.78
1921	319,170	-44,042	-12.13
1931	342,245	+23,075	+7.23
1941	383,042	+40,797	+11.92
1951	448,275	+65,233	+17.03
1961	563,598	+115,323	+25.73
1971	772,618	+209,020	+37.09
1981	989,294	+216,676	+28.04
1991	1,230,608	+241,314	+24.39
2001	1,503,178	+272,570	+22.15
2011	1,676,276	+173,098	+11.52

Source: Census of India, 2011²⁸

2.4.2 Population Density

The density of population indicates the pressure of population on land and gives an idea of the capacity of the area to support its population with the available resources. Presently, the

population density of the district of Dakshin Dinajpur is 755 persons per sq. km (Table 2.3) which is about four times larger than the population density in 1901 as in that year the density of the district was 153 persons per sq. km. Here, the highest density is recorded in Hilli block which is the smallest block of the district and the lowest density is in Tapan block which is the largest block of Dakshin Dinajpur. The population density of the two urban areas of this district shows a heavy pressure of population on land, especially in Balurghat municipality where the density is 14654 persons per sq. km. while in Gangarampur the population density is 5463 persons per sq. km. Actually, the idea of better facilities of urban life, may be it real or imagined, forced the rural people to leave their native places and settle in the urban areas of the district.

Table 2.3 Density of Population in the District of Dakshin Dinajpur, 2011

Name	Total Population	Area (in sq.km) in 2001	Density (per sq. Km)
Dakshin Dinajpur	1676276	2219	755
Kushmundi	198752	310.63	640
Gangarampur	237628	315.52	753
Gangarampur(M)	56217	10.29	5463
Kumarganj	169102	286.62	590
Hili	83754	90.78	923
Balurghat	248901	369.39	674
Balurghat(M)	153279	10.46	14654
Tapan	250504	445.63	562
Bansihari	141286	196.52	719
Harirampur	136853	214.94	637

*Source: Census of India, 2011²⁹ & District Statistical Handbook, 2014³⁰
Computed by researcher*

2.4.3 Sex Ratio

The total population of the district is 1676276 persons of which 857199 persons are male and 819077 persons are female. Table 2.4 represents that the sex ratio of this district is 956 females per thousand males as per census 2011. Like the other Indian districts, here, the sex ratio is also not in favour of women but the ratio is better than state's sex ratio (950 female per thousand male). However, the block-wise distribution of sex ratio shows a wide variation ranging from 982 female per thousand male in Harirampur to 933 female per thousand male in Gangarampur. The highest sex ratio is recorded in Balurghat municipality area while lowest sex ratio is found in Gangarampur municipality area.

Table 2.4 Block-wise Distribution of Sex Ratio in Dakshin Dinajpur, 2011

Name	Total Population	Total Male	Total Female	Sex Ratio
Dakshin Dinajpur	1676276	857199	819077	956
Kushmundi	198752	100317	98435	982
Gangarampur	237628	122941	114687	933
Gangarampur(M)	56217	29095	27122	932
Kumarganj	169102	87098	82004	942
Hilli	83754	42981	40773	949
Balurghat	248901	128318	120583	940
Balurghat(M)	153279	76730	76549	998
Tapan	250504	128500	122004	949
Bansihari	141286	72161	69125	958
Harirampur	136853	69058	67795	982

Source: Census of India, 2011³¹
 Computed by researcher

2.4.4 Level of Literacy

According to Census of India, a literate person is one who is able to read as well as write with appropriate comprehension.³² Dakshin Dinajpur ranks 12th among the districts of West Bengal on the basis of literacy rate (Census 2011). But on the basis of gender gap in literacy, the district is at 9th position among all the districts of West Bengal which rightly indicates the level of spread of education in the society.

Table 2.5 Gender Gap in Literacy in Dakshin Dinajpur, 2011

Name	Literacy Rate (in %)			Gender gap (in %)	Disparity Index
	Total	Male	Female		
Dakshin Dinajpur	72.82	78.37	67.01	11.37	0.11
Kushmundi	65.43	71.82	58.95	12.87	0.13
Gangarampur	71.45	77.03	65.47	11.56	0.11
Gangarampur(M)	89.39	88.82	80.07	8.75	0.08
Kumarganj	74.57	79.56	69.25	10.31	0.10
Hilli	76.04	81.97	69.77	12.21	0.11
Balurghat	73.88	80.18	67.15	13.04	0.12
Balurghat(M)	91.10	93.59	88.62	4.97	0.04
Tapan	68.62	74.24	62.69	11.55	0.11
Bansihari	68.79	75.21	62.06	13.15	0.13
Harirampur	64.78	71.45	58.00	13.45	0.13

Source: Census of India, 2011³³
 Computed by researcher

The average literacy rate of Dakshin Dinajpur is 72.82% (Table 2.5) which is less than states literacy rate i.e. 77.08%. Here, the average male literacy rate is 78.38% and female literacy rate is 67.01%. Thus, the gender gap in literacy rate is about 11.37%. The block-

wise study of gender disparity in literacy reveals a low variation among the different blocks of Dakshin Dinajpur. Here, the Disparity Index is prepared to find out gender disparity in literacy. The Disparity Index value shows the highest gender disparity in Harirampur block (0.13) while lowest in Kumarganj (0.09). In urban area, the gender disparity in literacy is comparatively lower than the rural area.

2.4.5 Work Participation Rate

The work participation rate refers to the percentage of population of a particular area, community or group that involves in economic activity and the male-female work participation rate shows the gender gap in economic activity. It is evident from the table 2.6 that in Dakshin Dinajpur, about 41.94% of the total population is engaged in economic activity while 58.07% people are still economically dependent on the working group. The work participation rate is highest in Balurghat block while it is lowest in Kushmandi (38.11%) which is most distantly located from the district's head quarter Balurghat. It is observed that the work participation rate is surprisingly lower in the two municipalities of Dakshin Dinajpur.

Table 2.6 Gender Disparity in Work Participation in Dakshin Dinajpur, 2011

Name	Work Participation (In %)			Gender Gap (In %)	Disparity Index
	Total	Male	Female		
Dakshin Dinajpur	41.94	58.28	24.83	33.44	0.46
Kushmundi	38.11	56.07	19.80	36.27	0.55
Gangarampur	40.80	57.96	22.40	35.57	0.51
Gangarampur(M)	37.15	55.95	16.99	38.95	0.62
Kumarganj	42.98	59.23	25.71	33.51	0.46
Hilli	44.94	58.61	30.51	28.10	0.36
Balurghat	45.64	61.13	29.16	31.97	0.41
Balurghat(M)	37.90	57.29	18.47	38.81	0.60
Tapan	45.63	59.74	30.77	28.97	0.37
Bansihari	40.94	57.83	23.30	34.53	0.49
Harirampur	40.36	55.16	25.27	29.88	0.42

Source: Census of India, 2011³⁴

Computed by researcher

The male-female work participation rate reveals a wide gender gap. About 58.28% of the total males are economically active while only 24.83% females are involved in some economic activities. The male-female work participation rate also shows a wide spatial variation here. The male work participation rate varies from 55.16% in Harirampur to

61.13% in Balurghat. But the female participation rate ranges from 19.81% in Kushmandi to 30.78% in Hilli. The urban work participation rate shows comparatively wider gender gap than the rural areas. The result of Disparity Index shows that gender disparity in work participation rate is highest (0.62) in Gangarampur municipality and it is lowest in Hilli block (0.36) as the highest female work participation rate is recorded here. Thus, the table clearly points out a poor economic status of the women as a large number of women in this district are still dependent on the male members.

The study also highlights the extent of employment of the workers in different activities. On the basis of extent of employment, the workers are further divided into main workers i.e. who works for 183 days or more in a year and marginal workers i.e. who works for less than 183 days in a year.³⁵ Table 2.7 shows that about 31.41% of the total population works as main workers while 10.53% are marginal workers. Out of the total main workers, 81.22% are male while the rest are female. But, in case of marginal workers, the situation is very much different as women have larger share in marginal workers.

The following table shows that the highest male main workers is observed in Kushmundi and female main workers is recorded in Hilli block. In urban area, the highest male main workers is observed in Gangarampur municipality and the highest female main worker is observed in Balurghat municipality. It is evident from the table that in Dakshin Dinajpur, very few women are economically active and majority of them are actually marginal workers. The highest female marginal workers are recorded in Hilli block and Harirampur recorded the lowest female marginal workers.

Table 2.7 Work Force Structure of Dakshin Dinajpur, 2011

Name	Main Worker (in %)			Marginal Worker (in %)		
	Total	Male	Female	Total	Male	Female
Dakshin Dinajpur	31.41	81.22	18.78	10.53	40.78	59.22
Kushmundi	28.72	85.18	14.82	9.39	40.88	59.12
Gangarampur	32.30	81.71	18.29	8.50	42.30	57.70
Gangarampur(M)	31.75	84.20	15.80	5.41	41.12	58.88
Kumarganj	32.42	81.36	18.64	10.55	39.10	60.90
Hilli	35.88	74.41	25.59	9.06	37.32	62.68
Balurghat	32.93	79.68	20.32	12.72	41.51	58.49
Balurghat(M)	33.35	78.62	21.38	4.56	53.97	46.03
Tapan	31.00	81.22	18.78	14.63	37.36	62.64
Bansihari	29.94	83.82	16.18	11.00	40.39	59.61
Harirampur	26.94	81.96	18.04	13.42	42.89	57.11

Source: Census of India, 2011³⁶
Computed by researcher

2.4.6 Occupational Structure

The Census of India divided the workers into four main categories on the basis of types of economic activities. These are— Cultivator, Agriculture Labourer, Household Industry Worker and Other Type of Workers.³⁷ Table 2.8 shows that in Dakshin Dinajpur, majority (39.82%) of the workers work as agriculture labourer while 28.09% workers are engaged in other type of activity. The share of cultivators in the total work force is 27.49%. Household industry is not much developed here. Only 4.59% workers are involved in household industries.

Table 2.8 Occupational Structure of Dakshin Dinajpur, 2011

Name	Percentage Distribution			
	Cultivator	Agricultural Labourer	Household Industry	Other Worker
Dakshin Dinajpur	27.49	39.82	4.59	28.09
Kushmundi	42.49	45.22	1.33	10.96
Gangarampur	28.82	43.13	5.33	22.72
Gangarampur(M)	1.42	4.75	14.49	79.34
Kumarganj	30.68	48.66	4.93	15.74
Hilli	23.16	34.17	12.68	30.00
Balurghat	26.29	38.20	5.29	30.22
Balurghat(M)	0.94	0.81	2.56	95.68
Tapan	33.15	49.76	2.77	14.32
Bansihari	30.65	45.54	2.68	21.13
Harirampur	28.63	49.88	4.57	16.92

*Source: Census of India, 2011³⁸
Computed by researcher*

In this district, highest concentration of cultivator is found in Kushmundi (42.49%) while highest share of agricultural labourer is found in Harirampur which accounts for about 50% of the total worker of the block. Among the blocks, lowest share of cultivator and agricultural labourer is found in Hilli block. The highest concentration of household industry worker is recorded in Gangaramur block and Gangarampur municipality. Handloom industry is a major household industry here. The share of other type of worker is highest in Balurghat block (30.22%) while it is lowest in Kushmundi (10.96%). In both Balurghat and Gangarampur municipality, majority of the workers work as other type of worker. It is evident from the table 2.8 that the blocks like Balurghat, Gangarampur, Hilli which are in close proximity to the two municipal towns of the district have larger proportion of workers involved in other activities.

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