

CHAPTER II

GEOGRAPHICAL BACKGROUND OF THE STUDY AREA

2.1: Location & Boundary:

Six northern districts of West Bengal, namely, Darjiling, Jalpaiguri, Koch Bihar, Uttar Dinajpur, Dakshin Dinajpur and Maldah comprise North Bengal, a region formed due to the cutoff from South Bengal by the river Ganga. It lies to the north of the Ganga River. The latitudinal extension of the region is from 25⁰53'11"N to 27⁰13'15" N and longitudinal extension is from 88⁰15' E to 89⁰53'04" covering an area of 21,855 sq. kms., the region is bordered by Sikkim and Bhutan in the north; the eastern side is bounded by Assam and Bangladesh whereas Murshidabad district of West Bengal determines the southern limit of the region and the western boundary is formed by Bihar.

Administratively, the region consists of eighteen Subdivision, sixty-nine C.D. Blocks, twenty two Urban Centers and seven thousand six hundred and seven Mouzas.

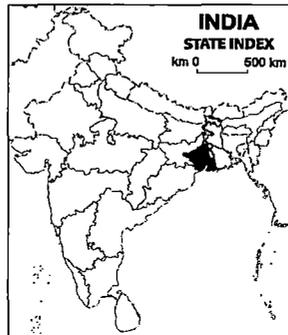
2.2: Geographical Account:

2.2.1: Physiography:

The physiography of North Bengal is full of diversity. The North Bengal is full of diversity. The northern part of it has lofty hilly country, while at the immediate foothills there are marshy and swampy tracts called the Terai & Dooars. In the south, monotonous riverine plains exist. The hills and valleys of the Middle and Outer Himalayas in Darjiling district constitute this region, a tangled mass of hills country having a very rugged topography. Steep slopes, knife-edged ridges, very often concave and deep gorges are common. The Tarai and Dooars region occupies the wavy plains of the foothills of

*[Spelling is according to that given in Census of India, 2001]

LOCATION MAP



NORTH BENGAL



REFERENCES

- Boundaries: International - - - - -
- state, district - - - - -
- Headquarters: state, district ... ● **GANGTOK** ● **HUGLI**
- C.D.Blocks ○ **Habibpur**
- National highway, Other roads ... —○—
- East-west corridor ————
- Railways, Rivers, Lakes/Reservoirs ————
- ER. ————
- Study Area ■

Koch Bihar, Jalpaiguri and southern half of Darjiling district. They slope downwards from the foothills and slowly flatten out to continue up to the sea. The upper parts and the eastern fringe are often called 'Dooars' – means doors to the mountain. A rough section from north to south resembles it as a gigantic staircase running step by step down from the lofty Himalaya to southern North Bengal plain. The western part of it is known as 'Terai'. 'Terai' means a damp and humid place. The northern plain includes the southern part of Jalpaiguri district, Uttar and Dakshin Dinajpur, Koch Bihar and Maldah districts.

2.2.2: River:

North Bengal has a wonderful river system in the whole country. It is well drained by a number of rivers and rivulets of various magnitudes. One of the distinctive characteristics of the major rivers of the region is that they undergo drainage inversion from converging drainage in the hills to divergent system in the plains. Most of the rivers are full to the brim during the peak season in the lower reaches. Catchments areas of these rivers are mostly large. All the rivers of the region are international in the sense that they flow through India and Bangladesh in the lower reaches and through Nepal and Bhutan in the upper courses. The main rivers of the region are the Mahananda, Balason, Mechi, Tista, Torsa, Jaldhaka, Karala, Kaljani, Raidak, Sankosh, Dima, Jainti Atrai etc.

2.2.3: Climate:

There is a diversity of climate in North Bengal region. The northern mountainous region experiences cool and humid climate while in the foothills and plains the climate can be best described under four seasons recognized by the 'Meteorological Department', Government of India, though slight modification may however be necessary. These four seasons are the hot season, the advance of monsoon, the retreat of monsoon and the cold season. The average annual rainfall of the mountainous region is around 300 cm to 400 cm having 120 rainy days. The average annual temperature is around 12.6⁰C. The highest temperature is observed in the month of May. January is the coldest month when the minimum temperature is 8.6⁰C and the mean daily minimum temperature is 19⁰C. The climate of the southern plain is characterized by a hot and apprising summer season,

plentiful rain and moisture in the air while during winter temperature drops rapidly. In April the mean daily maximum temperature is almost 32°C and the mean daily minimum temperature is 21.8°C. The cold season commences after the middle of November and the temperatures drop rapidly. January is the coldest month with the mean daily minimum temperature of 10.3°C.

2.2.4: Natural Vegetation:

A number of physiographic, climatic, edaphic and biotic factors have created a rich variety of vegetations in North Bengal region, mainly in three districts, namely, Darjiling, Jalpaiguri and Koch Bihar. On the basis of vegetation type the natural vegetation of the region is generally classified into six subgroups-

i) *Tropical Moist Deciduous forests* are found in the hills up to 768 meters elevation. Very common species of such forests are Sal, Champ, Chillauni, Chukrasi and sometimes Khair and Sisoo in reverine plains. ii) *Tropical Semi Evergreen Forests* available in the foothills are composed of species like champ, Panisaj, Gokul, Angav. iii) The forest of Saur, Utis, Mahua, Chilauni is known as *Subtropical Hill Forest* which is found in hills up to an elevation of 1850 meters. iv) *The Eastern Himalayan Wet Temperate Forest* has grown up between 1850 meters and 3000 meters with Champ, Silver Fir, Hemlock and Oak as common species, above 3000 meters. v) The *Alpine Forest* is found and with certain variation is divided into sub-alpine and dry and moist alpine trees like Rhododendron, Junipers and Barberries.

The *forests of the plain* may further be categorized into *Riverain, Dry Mixed and Wet Mixed forests*. In the riverain forest of the plains the most conspicuous tree species are Sal, Sisoo, Khair, Simul, Toon etc. whereas, in Dry mixed plain forest where the water level is low and the soil is dry, species like paccasaj, Gamari, Oodal, Maina, Mandana are qualiable. To the contrary, in the wet mixed plain forests with high water table and moist soil, champ Jamuna, Lali, Malgiri, Azmbaka, Borhar grow in abundance.

2.3: Economic Accounts:

2.3.1: Agriculture:

The physical configuration of the districts makes the condition of agriculture in different parts exceedingly varied. The strip of the country at the foot of the hills contains level stretches of alluvial soil admirably suited for cultivation of rice. The hilly region is characterized with mainly tea and orchards. The southern plain of the region is suitable for a lot a crops. Fertile soil of the river valleys transported by the rivers coming from the Himalaya is excellent for number of crops. A large number of populations engaged as cultivators and agricultural labourers. Three districts namely Koch Bihar, Uttar Dinajpur and Dakshin Dinajpur have high participation rate, whereas, Darjiling and Jalpaiguri districts represent comparatively low participation rate as cultivators and agricultural labourers. The deviation from state average (20.41%) is strikingly higher in case of districts of North Bengal. The picture of irrigation is not a good one as Darjiling district represents only 7% irrigated area to cultivated area according to 2001 data. But Maldah district have 51% irrigated area which is even higher than that of state average (47.62%). All the rest four districts have about 1/4th portion of irrigated area to cultivated area. The consumption of fertilizer in agriculture is quite good in North Bengal in respect of state average. Maldah and Jalpaiguri districts used fertilizers less than state average (80.30 kg/acre in 2001). The maximum fertilizer consumption is occurred in Dakshin Dinajpur (127.90 kg/acres) which is followed by Darjiling, Uttar Dinajpur, Koch Bihar, Maldah and Jalpaiguri district.

The crops cultivated in the region are – wheat, jute, rice, various fruits, tea, medicinal plants etc.

2.3.2: Industry:

The main industries of the region are tea industry, timber industry, silk industry etc. Only 818 registered factories are developed in the region according to 2000-2001 Statistical Abstract of West Bengal. The entire region suffers from the lack of large scale industry. The tea industry is very important foreign exchange earner only 14.79 % of the workers engaged in secondary activities. It is noted here that all the six districts of North Bengal(North Bengal average-14.79 %) gives negative deviation from the state average (

According to 2001 census whereas only 26.75 % of total main workers of North Bengal are engaged in tertiary activities. The maximum and minimum work participation rates in tertiary activities are observed in Darjiling (49.32%) and Uttar Dinajpur district (19.61%) respectively. In respect of number of 'registered small scale industrial units' per lakh population, the sole Darjiling district (470 per lakh population) represent positive deviation from the state average (359 per lakh population) whereas, in case of 'estimated net distinct domestic product' all the six districts of North Bengal lie below the state average (Rs.9736.62/lakh population), that is say, all of them are economically backward so far as cost of domestic product is concerned.

2.3.3: Transport:

Transport section in North Bengal is characterized by Roadway, Railway, Inner Waterway and Airway. National Highway Number 34 might well be called the backbone of the state as it runs north-south from Kolkata to Gangtok passing into Sikkim at Rangpo. The construction of Farakka Bridge over the Ganga River has increased its importance again. It has connected the North Bengal region with the entire state, as well as country. At Dalkhola NH-34 is joined from the west by the National Highway from Bihar. At Siliguri, this highway is connected with the state way to Darjiling, to the north and Jalpaiguri and to Bangladesh border at south. At Sevoke on the Tista another national highway branches out to the east. It crosses the river Tista gorge by magnificent one arch high concrete bridge and succeeds through Jalpaiguri and Koch Bihar to Assam. A number of Jeep able roads are there to cover the hilly region. The North-East Frontier railway system serves the North Bengal Region. The Bagdogra Airport is the only one airport of the region connecting with the rest of the country. In respect of Road density Dakshin Dinajpur and Darjiling district represent higher density (about 0.55 km/10sqkm) than the state average (0.52 km/sq.km.) whereas Koch Bihar district represents lowest road density (0.34 km/10sqkms) according to 2001 statistical abstract. On the other hand, the rail density of the region provides a slightly different picture as Jalpaiguri district (0.067 km/sq.km.) have highest rail density. It is strikingly noted here that Dakshin Dinajpur district represents zero rail density according to 2001 data. The average rail density of North Bengal is 0.046 km/10sq.km. which is greater than that of state average

(0.043 km/10sqkm). Only Maldah district have negative deviation from the state average. Therefore, it is clear from the above the transport and communication of North Bengal is not enough good. The problem further deteriorated due to prolonged rainy period.

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