

Chapter I

Geo-Economic Location of North Bengal

Geographical Personality

Lying between $25^{\circ} 30' N$ to $27^{\circ} 13' 15'' N$ latitudes and longitude $88^{\circ} 15' E$ and $89^{\circ} 53' 04'' E$, situated in between the Himalayas in the north and River Ganga in the south, North Bengal comprising the five northern districts of West Bengal - Cooch Behar, Darjeeling, Jalpaiguri, Malda and West Dinajpur - forms a separate geographical entity, both physically and economically distinct from the southern portion of West Bengal. In its geographical location North Bengal commands a unique position. The region borders on three foreign countries - Bhutan in the north, Nepal in the west and Bangladesh in the south - and two Indian states - Assam in the east and Bihar in the west. Thus hemmed in largely by international boundaries on all sides, the region acquires a special strategic significance. (Fig.3).

General physiography

The general physical character of the area is contrasting nature. The Himalayas in the north and the north eastern portions are immediately succeeded further south by plains traversed by innumerable rivers flowing from north to south with braided courses. The region may thus be divided into two broad distinct physiographic units :

- A. The mountainous terrain of the Himalayas of the north and north-east;

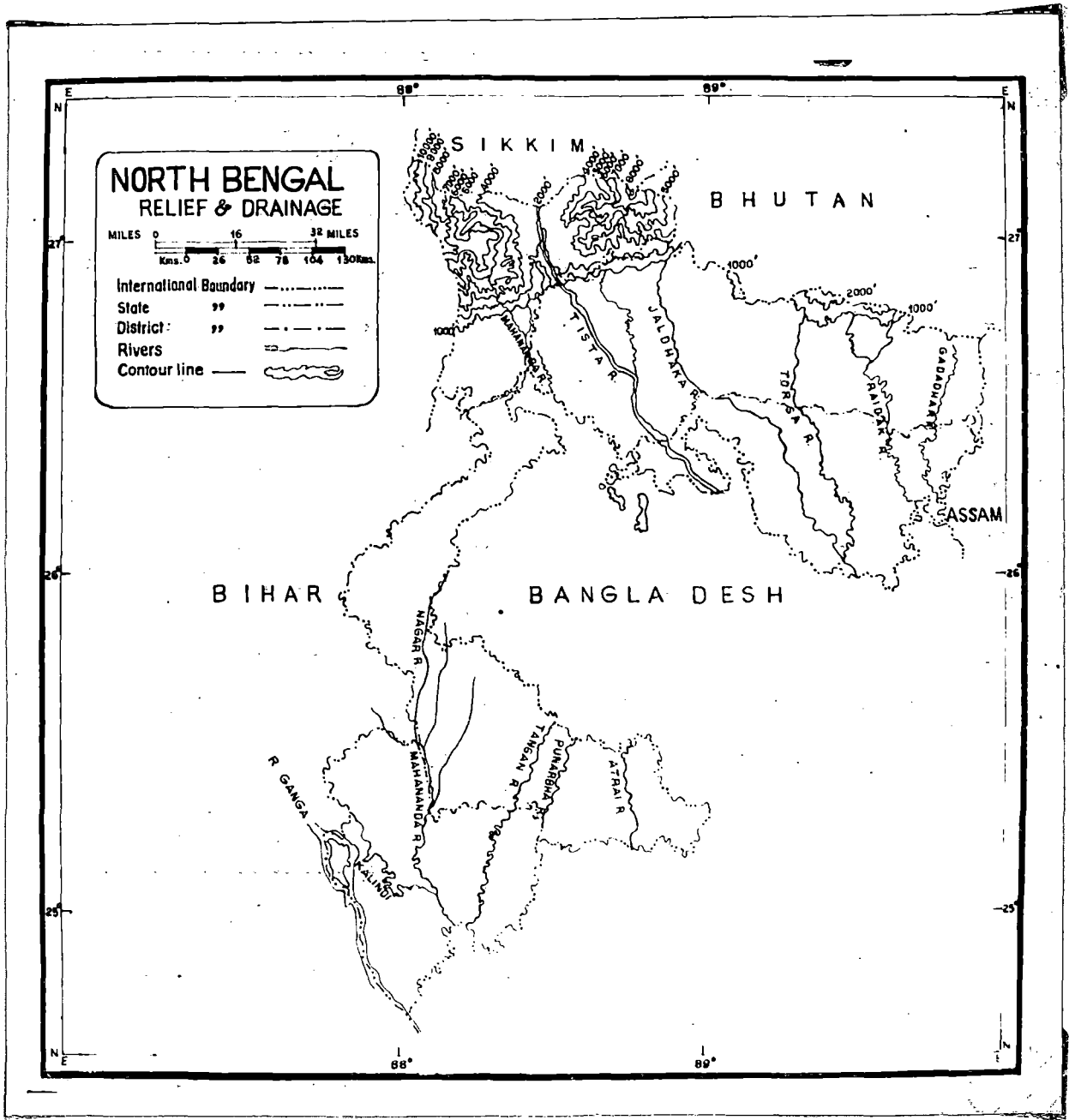


Fig. 4

- B. The flat alluvial rolling plains of the south and south eastern part.
- A. The mountainous terrain of the Himalayas in the north and north and north-east

The mountainous terrain of the Himalayas covers the districts of Darjeeling in the north and Jalpaiguri in the north east part of the region. The mountain system represents complicated relief features with zig-zag alignment of the ridges give rise to a number of long spurs on either side. Ridges mostly stretching from north to south are followed by rivers flowing in the same direction.

The confused nature of the relief is dominated by the Singalila ridge which rising 3658.53 mts. at Phalut near Darjeeling falls southward at Manibhanjan to ^{1829.26}~~1829.26~~ mts. and forms the International Boundary between Nepal and India. Tiger Hill, another ridge with an altitude of 2439.02 mts. rises in the east of Manibhanjan.

East of the Tista, Rishila with 3201.21 mts. height makes the border between Bhutan, Sikkim and India. From here one of the more predominant ridges runs southeast ward cutting off the Jaldhaka valley from the rest of the Darjeeling district. (Fig.4)

- B. Flat alluvial rolling plains of the south and the south eastern part

A traverse from the foot of the Himalayas towards the

Barind will reveal the following spatial association of land
4
form :

1. Boulder-strewn undulated plains;
2. Sandy undulations of the Duars;
3. The clayey flats of the Tal and
4. The slow rise of the ferallitic Barind.

The spatial association of these landforms suggests the operation of the mechanism of alluvial fan formation at the foot of the hill. The grain size variations of the materials between boulder plain and the Duars reflect the natural process of fluvial sorting within a water-filled basin of sedimentation. The clay minerals of the Tal region show unmistakable signs of anaerobic decomposition : The presence of "terra-rosa" on the swellings of the Duars suggests a fairly long period of oxidation and also a slow process of evolution of the Duars landscape. One should not forget that tectonic upliftment of the Himalayas also involved the upliftment of the basement of the North Bengal lake : this will perhaps explain why rivers flowing through the Tal and the Barind do not show signs of inter catchment in their profiles.

Rivers of North Bengal

The rivers generally, follow a north to south course, though in some cases they flow from west to east.

The Tista the dominating river of North Bengal, rises from a glacier in North Sikkim, 6341.46 mts. above sea level, and forms the boundary between North Bengal and Sikkim. In the district of Darjeeling it is joined by the Rangpoo in the south and the great Rangit in the West. At Sivok, the Tista enters into the district of Jalpaiguri. The Lish, the Gish, and the Chel emerge from the hills, and join with the Tista in the Jalpaiguri district. After crossing the Jalpaiguri district, the Tista falls into the Brahmaputra River at Rangpur district in Bangla Desh.

East of the Tista, are rivers debouching from the foothills which, like it, flow into Brahmaputra the most important of the eastern rivers is the Jaldhaka.

The Torsha, the Mansai, the Kaljani, the Raidak, the Gadadhar coursing through the Cooch-Bihar district join with Brahmaputra in the south.

All the rivers lying to the west of the Tista - the Mahanadi, the Balason and the Mechi flow into the Ganga.

The Mahanadi has its source near the mountain of Mahaldiran to the east of Kurseong. After leaving the hills, the Mahanadi flows south as far as Siliguri, (known as Mahananda) where it changes its direction more to the south west and forms the boundary between Terai and the Jalpaiguri district. Nagar a small tributary rising in the North of Bangla Desh enters into West Dinajpur and finally joins with Mahananda.

The Tangan, rising in the part of the Jalpaiguri district now in Bangladesh, entering into West Dinajpur is a fairly large

river. It is navigable by boats throughout the year.

The Funarbhaha, now an insignificant stream, famous for Hilsa fisheries, flows across the northern boundary of the West Dinajpur district.

The Atrai entering the northern part of West Dinajpur flows southward.

The Kalindri flowing as an offshoot of the eastern branch of the Ganga is actually a branch of the Mahananda, which by the name of Phulliar traversing for a short stretch through Bihar enter into the district of Malda near Mihaghat, where it is known as Kalindri.

In fact, the Ganga forms the south Western boundary of the Malda district receives the water of all the other rivers. In the district of Malda, it forms the south western border with an island or char in its bed, about 15 miles in length, known as Bhutnidiara.

Climate

North Bengal's climate with its monsoon characteristics is largely influenced and modified by the Himalayan mountain system in the north. The maximum mean temperature is 6.5° C in Darjeeling and 23.3° C in Jalpaiguri, while the minimum mean temperature is 1.7° C and 10° C respectively. The summer temperature in the plains is attained in April and May. Over the Darjeeling hills the maximum temperature is obtained in the month of June. The month of January is the coldest month of the year in North Bengal. "Kalbaisakhi" or Norwester (Thunder Storm) are common

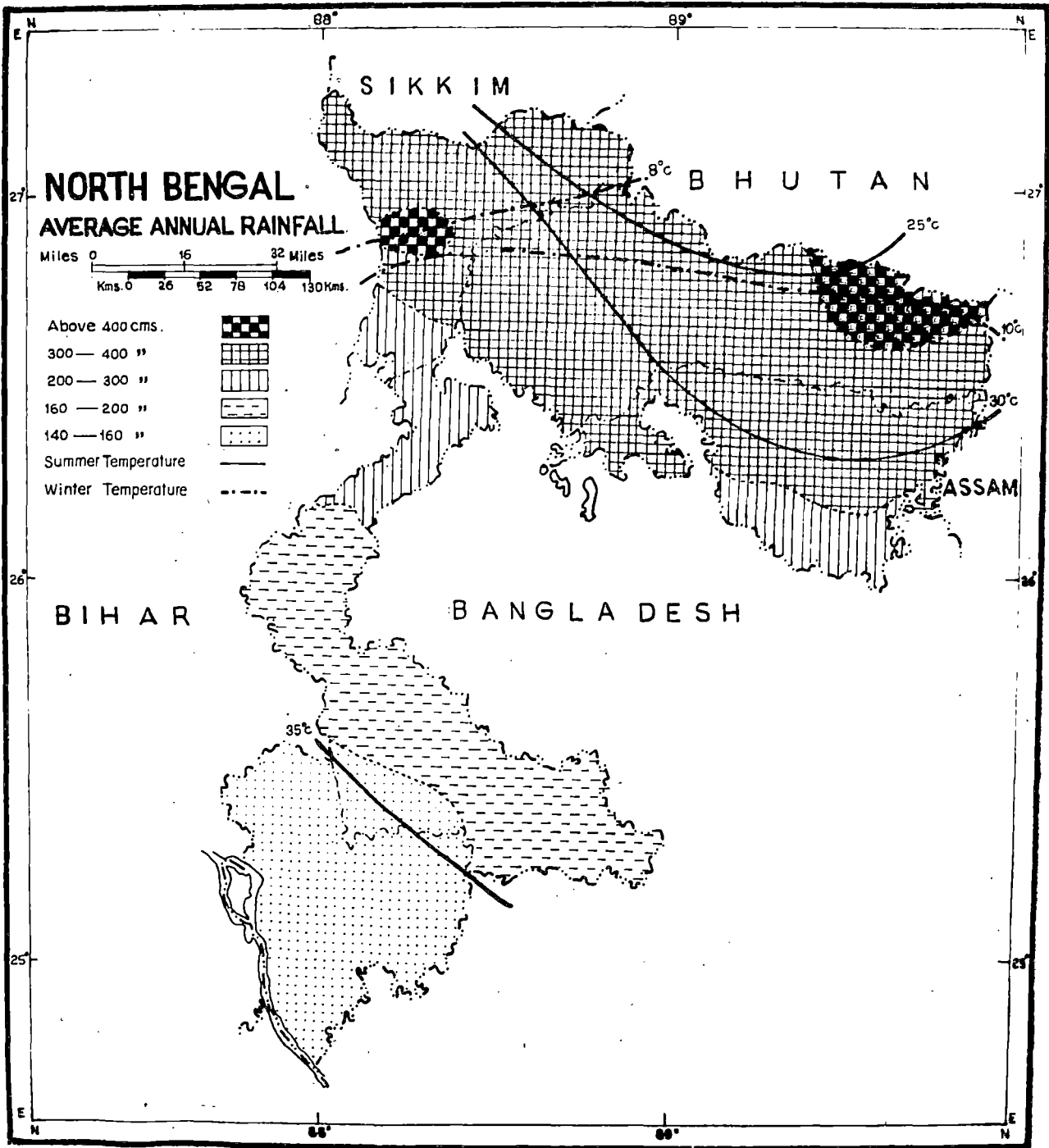


Fig. 5

from the middle of April to May.

The region experiences an average annual rainfall of about 117.5 cms. Rainfall in the Himalayan regions ranges from 250 cms to over 500 cms, while the southern plain districts receive on an average 125 cms to 187.5 cms. In the districts of Cooch Behar, Darjeeling and Jalpaiguri, rainy season starts from the last week of May and lasts upto to the middle of October. (Fig.5)

The tables (4 & 5) represent the temperatures and rainfall condition of the different districts of North Bengal.

Table - 4⁵

The distribution of temperatures
in North Bengal (in Centigrade)

Name of the district	Maximum				Minimum			
	1969-70		71-72		1969-70		71-72	
Cooch Behar	32	32	30	31	24	23	24	25
Darjeeling	20	20	21	19	12	11	7	7
Jalpaiguri	32	32	31	31	23	23	23	25
Malda	35.3	38	33	39	24.6	24	25	25
West Dinajpur	34	37	33	38	25	24	26	25

Table - 5⁵

Monthly Average annual rainfall of
North Bengal (in millimetres)

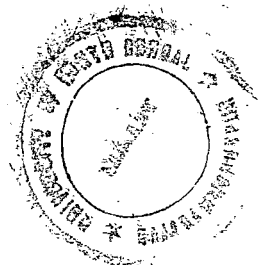
Name of the district	Maximum				Minimum			
	1969-70	71-72	1969-70	71-72	1969-70	71-72	1969-70	71-72
Cooch Behar	899	885	959	N.A.	6	1	12	1
Barjeeling	726	982	611	N.A.	3	2	16	8
Jalpaiguri	681	835	586	962	12	22	41	3
Malda	225.7	436	296	105	3.5	15	21	N.A.
West Dinajpur	332	472	390	223	2	9	17	25

N.A. - Not available

The agricultural products of the region depend greatly upon the timely arrival of the monsoon. Paddy, jute, tobacco, the main agricultural crops are planted with the onset of the rainy season. The climate in general, therefore has a direct impact on the regional economy.

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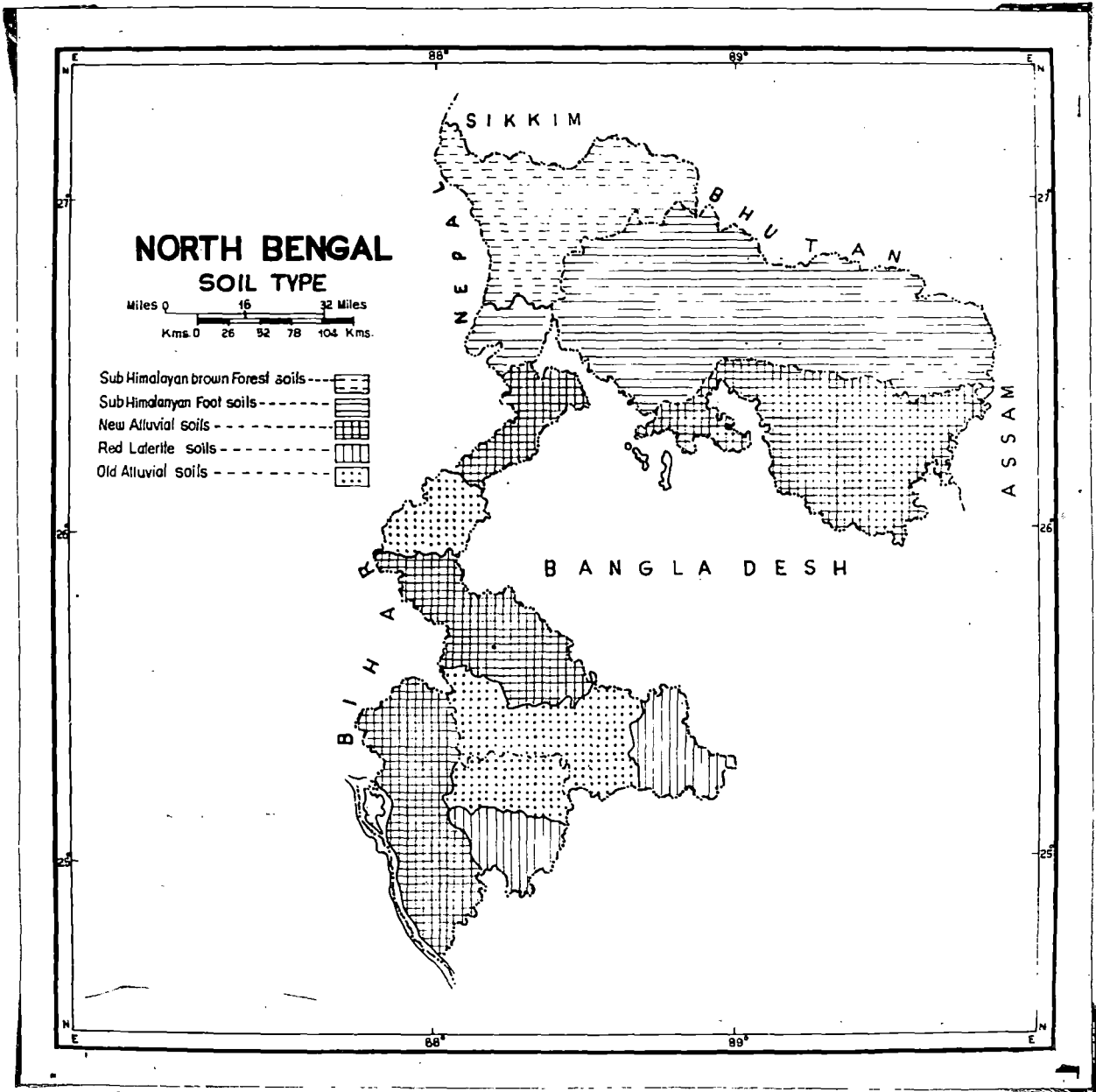


Fig. 6

Soil.

The agro-based raw materials for industrial growth have a direct relationship with the soil character of the region. The soil depending on altitude and aspect vary from place to place. An investigation by the West Bengal soil testing Laboratory in Siliguri made in 1977 led to following classification of the soils of North Bengal. (Fig.6)

1. The Gangetic Alluvium (old alluvium);
2. The Terai soils ;
3. The red soils ;
4. The Brown Forest soils.

1. The Gangetic Alluvium Soils or the Old Alluvium.

This type of soil occurs in the Western and the south - western part of the district of Malda and the north - western and the south - western parts of the district of West Dinajpur. Deposition from the river Ganga keeps this region generally fertile. A wide variety of crops are grown in these areas, such as Paddy, Jute, Mesta, Wheat, Barly, Oil seeds, Pulses, Chillies etc.

The old alluvium soils have great horticultural importance. Mango orchards are widely developed in these areas. Mulberry cultivation has also taken an important place, forming a number of pockets in Malda district.

2. The Terai Soils.

Soils, derived from the mountainous Tracts of the Himalayas, brought and deposited by the hilly rivers like the Tista, the Mahananda, the Torsa, the Jaldhaka and their tributaries have been termed as Terai soils. Soils of these groups are found in the districts of Cooch Behar, parts of Darjeeling (Siliguri subdivision), Jalpaiguri and in the Islampur subdivision of West Dinajpur.

These soils are deep black to grey black in colour, shallow in depth and light in texture. Due to heavy rainfall and constant leaching in the bases, the soils are highly acidic (PH 4.4 to 6.0) with organic matter sometimes not properly decomposed. Cash crops like Rice, Jute, and Tobacco are grown extensively on these soils, Tea is the most important plantation crop in this tract and mustard is also cultivated widely here. The cultivators of Rajganj block in Jalpaiguri district and Siliguri subdivision in Darjeeling district have recently taken up pineapple cultivation on a massive scale in this area.

3. The Red soils.

The land lying east of River Mahananda in Malda district and in the southeastern part of West Dinajpur district is mainly composed of soils red to reddish-black in colour sticky and hard in character. The soil reaction is mildly acidic (PH. 5.6 to 6.6). The soils poor in organic matter but rich in phosphorus and other chemical bases, response well to fertilizers. Previously the

cultivators of this area practised only a single crop, the Aman* but with the introduction of wheat cultivation, double-cropping system has been a popular practice.

4. The Brown Forest Soils.

Soils, found in the district of Darjeeling, are fertile but highly acidic (PH is as low as 3.8) in character. They are known as brown forest soils. Due to low temperature and inadequate sunlight the depth of soil is shallow. Orange is an important horticultural crop on these soils besides the famous flavoured tea.

Agriculture.

The physiographic climatic and edaphic conditions have influenced greatly the agricultural economy of North Bengal. With a contrasting physical landscape, copious rainfall and varied soils the region produces a variety of crops having distinct specialisations.

Agriculture being the backbone of the economy engages about 75 percent of the total population of North Bengal, which is 50 percent when West Bengal as a whole has been considered. The agricultural products meet not only the food needs but also provides the raw materials for small scale and cottage industries functioning in the region.

* Aman, one of the three principal varieties of paddy.

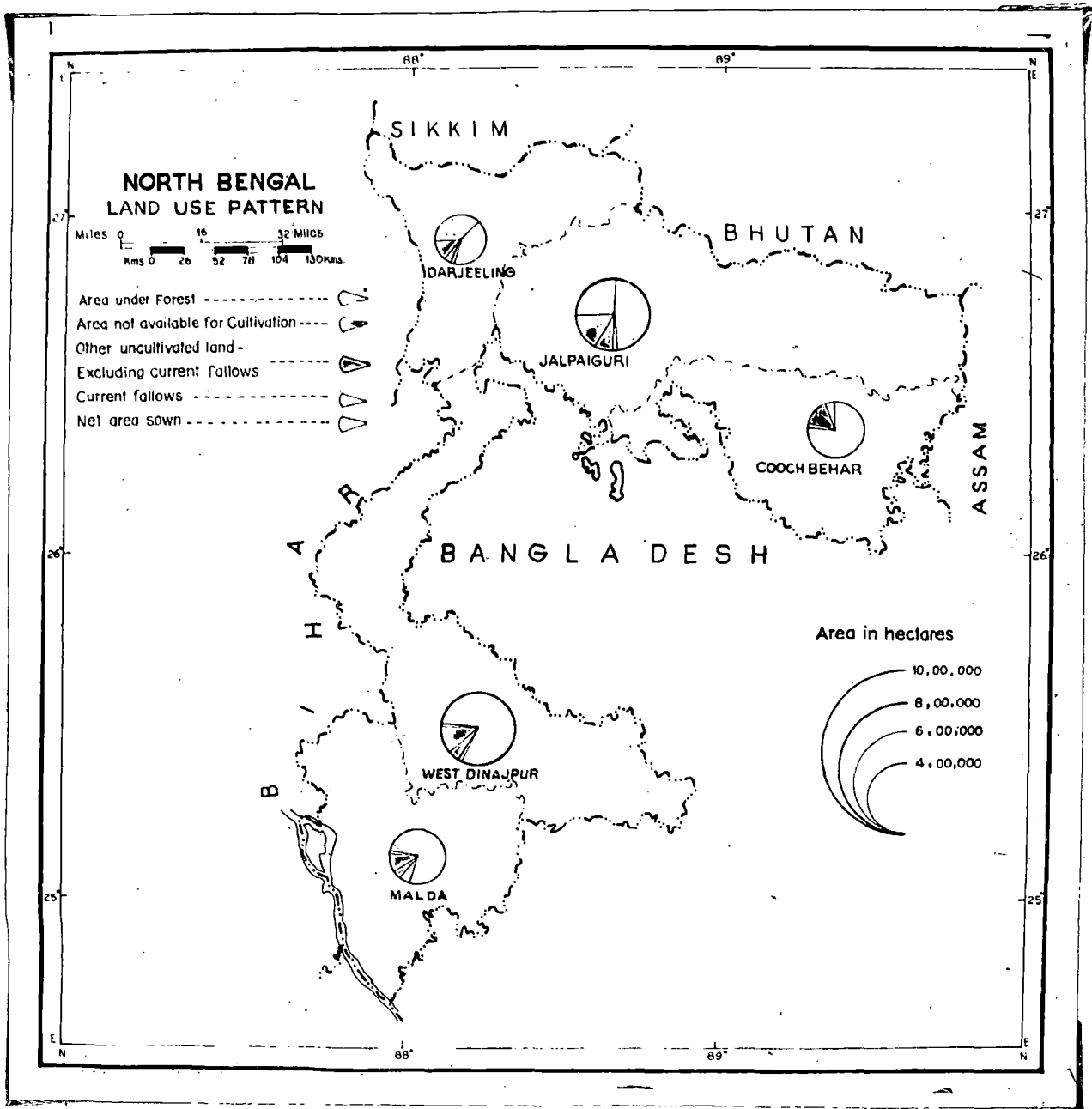


Fig. 7

Of total area of 21.6 lakh hectares about 65 percent is devoted to cultivation when the State's agricultural land amounts to 60 percent of the total land. Table 6 shows landuse of North Bengal.

Table - 6⁷

Land-use in North Bengal - 1971

Utilisation of the land	Percentage
Net area sown	65.5
Area under Forest	13.0
Area not available for Cultivation	14.0
Other uncultivated land excluding current Fallows	5.5
Current Fallows	2.0
Total	100.0

The importance of agriculture is palpably clear from the proportion of total land available for it in a region where relief is not all that suitable for cultivation in a considerable part. This is further revealed in the landuse pattern obtaining in the districts (Table-7). (Fig.7).

Table-7⁸

A district-wise land-use pattern in North Bengal ('000 hectares)

Name of the district	Area for which returns of agricultural statistics are obtained	Area under Forest	Area not available for cultivation	Other uncultivated Land excluding current Fallows	Current Fallows	Net Area sown
Cooch Behar	339.2	6.0	43.3	23.8	3.7	262.4
Darjeeling	310.7	118.5	72.6	14.7	1.7	103.2
Jalpaiguri	615.0	165.3	96.5	45.6	3.2	302.2
Malda	360.5	0.5	35.5	14.2	22.8	287.2
West Dinajpur	555.4	0.8	64.9	21.3	4.5	463.9

It is interesting to note that West Dinajpur has about 50 percent of its total land area under cultivation and the proportion decreases in other districts. Cooch-Bihar and Malda having 75 percent following further to 40 percent and 33 percent, in Jalpaiguri and Darjeeling district respectively.

Population

The distribution of population in North Bengal considered district-wise is largely determined by the total area and the availability of agricultural land. The total population in 1971 was 7,418,663 which is 16.74 percent of the Stat's total of 44,312,011. The growth rate of population, in North Bengal between 1961 and 1971 was 33.68 percent against 26.87 percent for West Bengal, during the same period.

The district-wise distribution of population may be found to be related to their respective total areas, latter providing living space for supporting existing densities.

Table -8⁷

Co-relation between population and area
by districts in North Bengal 1971 and 1961

Name of the districts	Rank in population 1971	Percentage of State's population 1971	Percentage of State's Area 1971	Rank in Area 1971	Rank in population 1961
Cooch Behar	4	3.19	3.84	4	4
Darjeeling	5	1.76	3.68	5	5
Jalpaiguri	2	3.95	6.97	1	2
Malda	3	3.67	4.07	3	3
West Dinajpur	1	4.2	6.03	2	1

It is interesting to note here that West Dinajpur having 36.03 percent of total land area ranking first in the concentration of population, where as Jalpaiguri, possessing 6.97 percent of the total area stands 2nd in the same respect, Malda comes third with 4.07 percent, followed by Cooch Behar and Darjeeling with 3.84 and 3.68 percent respectively. Thus in three districts rank in area is closely followed by rank in total population. The slight departure from this rule in the case of Jalpaiguri is due to unfavourable relief which being more homogenous in West Dinajpur gives it a higher rank in population.

Economy

Agriculture as the mainstay of the majority of the population of the region plays a vital role in defining its economy and all activities other than agriculture have grown on that basis. However, the following groups of occupation are clearly discussed.

- (a) The primary;
- (b) The Secondary;
- (c) The Tertiary.

- (a) The primary occupations include the activities of cultivation, fishing, hunting and mining;
- (b) The secondary occupations, mainly are concerned with the manufacturing activities.
- (c) The Tertiary activities are primarily dominated by trades and commerce and different types of services.

A classification of the working population engaged in different occupation brings out the true character of the existing economy of the region (Table-9).

Table - 9⁷

Distribution of working population
by occupation in North Bengal (1971)

Name of Occupation	Total number of employment	Percentage of employment to total workers.
(a) Primary		
1. Cultivators	1,064,137	48.92
2. Agricultural labourers	437,580	20.11
3. Livestock, forestry, fishing, hunting, plantations, orchards and allied activities	246,455	11.33
4. Mining and quarrying	934	0.04
(b) Secondary		
5. House hold industries	41,893	1.92
6. Other than household industries	49,661	2.28
(c) Tertiary		
7. Construction	12,837	0.59
8. Trade and commerce	100,119	4.60
9. Transport and communication	53,000	2.44
10. Other services	168,262	7.74
11. Non workers	19,461	0.90
Total	2,174,878	100.00

The foregoing table shows that primary occupation employes 80.40 percent of the total workers and the tertiary activities shares 16 percent followed by the secondary or industrial activities with only 4.20 percent of the total workers in North Bengal.

From the point of view of economic development, North Bengal's industries are much subdued in character regarding their bulk as well as variety as compared with those of lower or the southern part of West Bengal, though they have typical speciality of their own, needing a through study. The economy of North Bengal, basically an underdeveloped region has so far depended on a few of its speciality industries some of which enjoy world market. In spite of this such industries have had little effect on the economy of the region, although it excels speciality products in the whole of India offering tea, raw - silk, tobacco, jute, cinchona, orange, pineapple, ginger, cinamon, mango - to name only the important ones, besides a large variety of forest products. But many of these resources have not yet been exploited to any measurable degree in an organised manner for giving rise to a strong industrial base.

Raw Materials

Availability of raw materials considered as an important factor for the location of industries may be grouped as follows :

1. Agricultural material;
2. Forest-based raw material; and
3. Minerals.

1. Agricultural raw-materials.

Raw material obtained directly from the agricultural sector and generally termed as agricultural raw materials, include both cash and plantation crops produced in North Bengal.

The cash crops further be divided into :

(a) Food crops; (b) Fibre crops; and (c) Horticultural crops

(a) Food crops.

Among the food crops worth mentioning in North Bengal are rice, oil seed, pulses, wheat etc.

Rice. There are three kinds of rice namely Aus (Autumn rice) Aman (winter rice) and Boro (Summer rice), cultivated among which Aman predominates in both area and production (Table No. 10)

Table - 10⁸

Production of rice in North Bengal

1973 - 74

Name of the district	Production ('000 tonnes)
Cooch Behar	263.30
Darjeeling	10.62
Jalpaiguri	367.50
Malda	188.16
West Dinajpur	412.27
Total	1242.05

A districtwise variation of production of rice in North Bengal shows that West Dinajpur with 33.19 percent of the total production ranks first, while Jalpaiguri sharing 29.58 percent comes second followed by Cooch Behar with 21.19 percent Malda with 15.13 percent and Darjeeling with 0.91 percent.

(b) Fibre - crops.

Fibre crops include jute, meta, hemp. In North Bengal only jute is produced.

Table-11⁸

Production of Jute in North Bengal ('000 bales)

Name of the District	1974-75	1975-76	1976-77
Cooch Behar	133.0	157.3	172.8
Darjeeling	175.50	112.45	154.12
Malda	107.83	142.81	202.82
West Dinajpur	107.13	122.37	170.63

The table reveals the growth rate of production of jute in 4 districts of North Bengal for last 3 years.

(6) Horticultural crops.

Mango, orange and pineapple are most important among the horticultural crops in North Bengal. The district of Malda is famous for mango orchards. They cover about 6.83 percent area of the total land devoted to agriculture orange and pineapple have largely been cultivating in the district of Darjeeling. The former is producing generally in the hill areas of Mirik and Takdah, while the latter has been growing in the plains and Rajganj block of Jalpaiguri district.

Apart from these three types of crops tobacco, in Cooch Behar and Jalpaiguri districts, Cinchona and Ipecac etc.

have been cultivated in Darjeeling district. Mulberry crops have also been planting in all the districts of North Bengal for silk industry for which Malda is famous.

The small scale rice mills, oil mills, jute bailing plants rope making ^{Units} ~~mills~~, fruit processing units, cigar-chereot, silk-reeling and weaving have been thrived up based on these agricultural raw materials.

2. Forest-based raw-materials.

The forest offer varieties of timber as well as fuel for industrial use besides checking heavy soil erosion occuring mostly in north and north eastern parts of North Bengal.

The importance of forest products in the industrial economy of North Bengal, may be gauged from the regional distribution of the forests (Table-12).

Table-12⁸

Distribution forests in North Bengal
by districts ('000 hectares)

Name of the district	Total area	Area under forest	Percentage of the forest area to total area
Cooch Behar	329.2	6.0	1.8
Darjeeling	310.7	118.5	38.0
Jalpaiguri	615.0	165.3	26.8
Malda	360.5	0.5	0.13
West Dinajpur	555.4	0.8	0.14

Thus, about 13.2 percent of the total land area is under forest in North Bengal. A district-wise distribution of the forests shows that, Darjeeling ranks first with 38 percent followed by Jalpaiguri having 26.8 percent, Cooch-Bihar 1.8 percent and West Dinajpur 0.14 percent and Malda 0.13 percent. Since any region having 25 percent of its total area under forest can effectively help its economic development it is presumed that the districts of Darjeeling and Jalpaiguri are in a better position in successfully utilising their resources for industrial development.

The forests of North Bengal belong to three major categories.

- (a) Coniferous forests mostly occupying the higher elevations of the mountainous areas of the districts of Darjeeling and Jalpaiguri.
- (b) Wet ever-green forests occurring in the sub-montane and comparatively plain tracts of Jalpaiguri, Darjeeling and Cooch-Bihar districts where rainfall exceeds 203.20 cm annually.
- (c) Wet deciduous forests found in the southern parts of Jalpaiguri, Cooch Bihar and West Dinajpur districts with lower rainfall than the former areas.

According to J. D. Hooker the vegetation of Darjeeling Himalayas differs widely depending upon the variation of altitude. Vegetation available at different elevations are as follows :

1. 3658.53-3048.78 mts. Firs (*Abies wabbiana*), varieties of rhododendron, juniper, polly, red-current bushes, cherry, pear or pepper tree, creeping raspberry, hypercum, balsam, lichens etc;
2. 3048.78-2743.90 mts. Oak, chestnut, magnolia, arboreous rhododendron, nichelia or champa, olive, fig, laurel, maple, lily, white rose etc;
3. 2743.90-2439.02 mts. Magnolia, maple, rhododendron, oak, laurel, simplocus, vivernum and vaccinium etc;
4. 2439.02-1981.69 mts. Peach, oak, chestnut, maple, older, olive, walnut, birch, magnolia, raspberry, strawberry and hypercum etc;
5. 1981.69-1219.51 mts. Alder, oak, maple, birch, acacia, terminalia, cryptomeria, Japonica, cherry, olive, pear, pepper etc;
6. 1219.51-3048.87^{mts} Sal, tun, bombax or cotton tree, banian lemon, worm wood etc;
7. 304.87 mts and below : Different kinds of figs, dates, bamboos, wild mulberry, orchids, fern, ginger and many types of grasses etc.

Changes in variation also occur in the districts of Cooch-Bihar and Jalpaiguri. Fruit trees like blackberry, jam and mango have been found in abundance in Malda and West Dinajpur districts.

Forest Products.

The forest products obtained from the forests of Darjeeling are of two kinds :

- A. Major products;
- B. Minor products.

Table -13¹⁰

Forest products of Darjeeling district
1971 - 72

Name of the products	Quantity available (in cubic feet)	Value (in rupees)
A. Major products		
1. Timber	69,104	91,41,156 - 00
2. Fire Wood	1,91,070	7,94,403 - 00
B. Minor Products		
1. Bamboo	3,14,481 number	1,24,171
2. Others	N.A.	3,77,161

The table 13 gives us an idea about the amount of different forest products obtained annually from the forests of Darjeeling district.

Timbers of various kinds, available in forests of North Bengal are as follows :

1. Bohera (*Terminalia belerica*),
2. Champ (*Michelia tabularis*),
3. Chikrashi (*Chukrasia tabularis*),
4. Chilauni (*Schima Wallichii*),
5. Gamari (*Gmelina orborea*),
6. Jam (*Equgenia jambolasa*),
7. Jarul (*Lagrostromha periflora*),
8. Kadam (*Anth cephalus cadamba*),
9. Faksaj (*Terminalia*),
10. Sal (*Shorea*),
11. Sisco (*Dalbergia sisco*),
12. Tun (*Cederla toona*),
13. Teak (*Tectonia grandis*).

Sal, the most important timber, has been converted into sleepers in the saw mills for supply of the railways and various constructional works. Other varieties of timber are used for making furniture, building construction, plywood and the like, saw mill and plywood waste, bamboos and agricultural waste such as paddy straw and jute stick materials may be utilised for the development of fiber board and hard board industries. The forest-based resources, thus appear to have taken important part in the development industries already operating in North Bengal.

Among the other minor products adra, dar haldi and lac are worth mentioning as raw-materials for the cottage industries

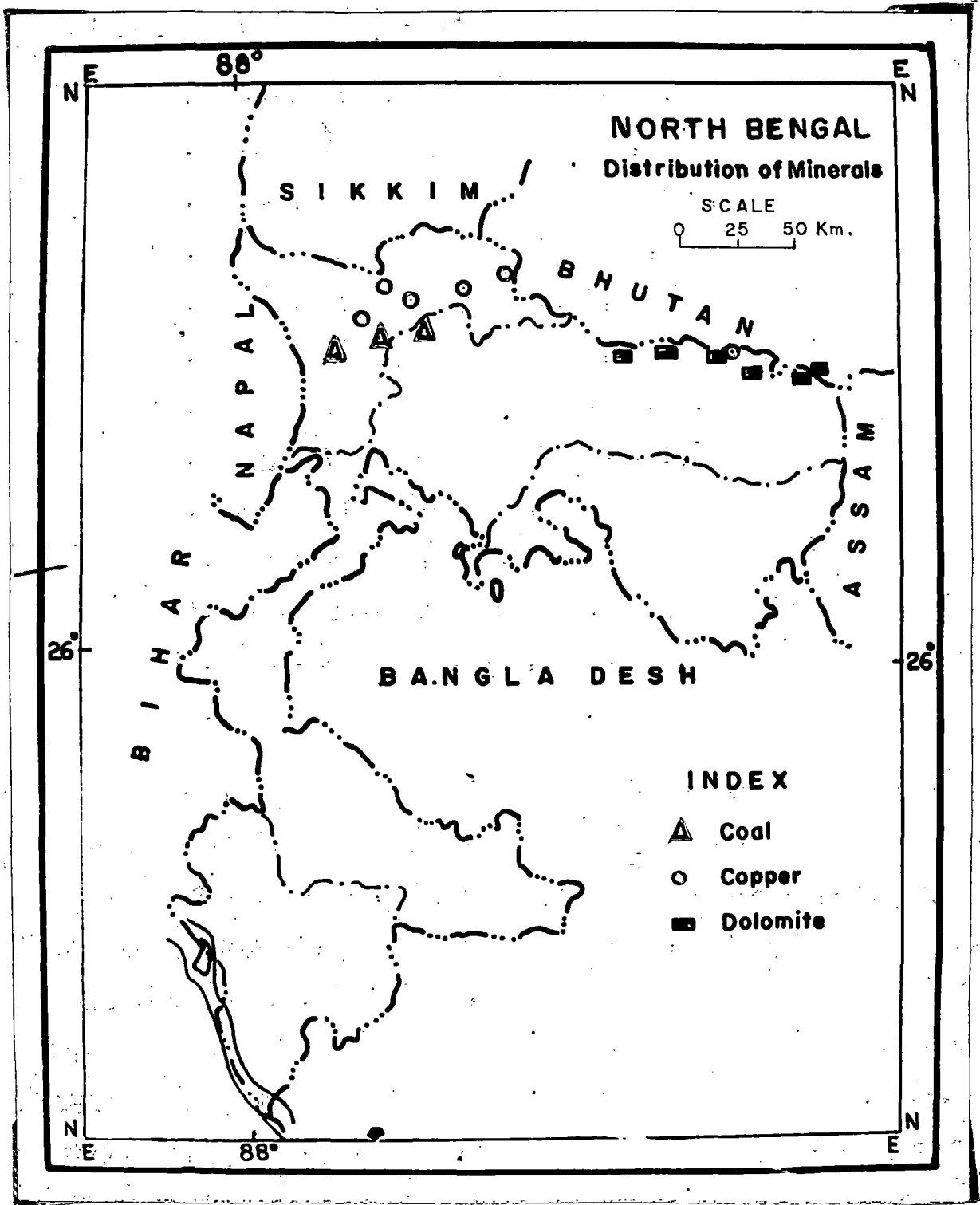


Fig. 8

in the region. Apart from the major and minor products, medicinal plants like Citronela, Ipecac, occur in abundance in Gooch Behar, Darjeeling and Jalpaiguri forest area.

Minerals

The mineral deposits available here are not, in general, commercially suitable for exploitation. However, minerals like coal, dolomite, limestone, present in some areas have economic importance. An estimate of such minerals may therefore be taken for consideration. (Fig.8)

(a) Coal.

Coals of Lower Gondwana beds are found in the districts of Darjeeling and Jalpaiguri associated with quartzite, sandstone and shale. The coal seams already investigated are those in the area from adjoining to the River Balason in the West to Neoranala in the east through Tindharia, Lish nala, Ranthi nala and Lethi nala. Coal seams have further been noticed in the east, along the Jaldhaka road section. The most important workable mines are in the river beds of Lethi, Lish and Ranthi.

Due to structural disturbances the bands of coal in the Gondwana series found are generally thin, containing flaky, semi anthracitic and often graphitic texture. They are low in volatiles and high in ash content.

(b) Dolomite.

In the Jainti-Buxa Duar area, in Jalpaiguri district, the occurrence of dolomite of Buxa formation has been found in

two distinct bands : the upper band is by far the most important while the lower one is of less significance. The thickness of the upper band is 380m., extending for about 1.2 kms. An estimated reserve of nearly 243 million tonnes is available here covering an area of 5 sq.kms with a depth of 50m. Presently, the Bengal Lime and stone co. and Jainti Lime Co. are engaged in mining the dolomite using it for lime production and sending a part of it to Durgapur Hindustan Steel Co.

Table-14¹¹

Production of dolomite in North Bengal

Year	Quantity (in tonnes)	Value (in Rupees)
1970	39,655	213,000
1971	27,389	144,000
1972	39,538	195,000

(c) Lime stone.

A few scattered occurrences of coarse, crystalline limestone bands, ranging in thickness from 1 to 1.22 m., interbedded with quartzites and sandstones have been reported from Falla in the beds of Phenock Stream, Bindi Stream, etc. The deposits of limestones have estimated at from a few hundred thousands tonnes to two million tonnes.

Limestone bands overlying the coal bearing formations are also reported from Darjeeling district occurring in the bed of Lish River.

Considerable deposits of calcareous tufa (containing more than 45% of CaCO_3) of Buxa formation are also found in Darjeeling and Western Duars areas of Jalpaiguri districts.

Minerals of lesser economic importance.

Copper.

A few occurrences of disseminated grains of copper associated with slates and schists have been traced in Darjeeling District. Deposits of copper pyrites with iron pyrites are also found at Buxa near Jalpaiguri.

Iron ore.

High grade micaceous hematite and octahedrous of magnetic occur in 6m thick band within the schists of Daling Formation of Sambalong, about 1.5 km east-south-east of sikbar, Kalimpong sub-division. Iron content varies from 58.90 to 71.50 percent.

Talc and Stealite.

Three working quarries of talc and stealite are reported from Ramsuk khola in Darjeeling district.