

Chapter II

THE STUDY AREA: AN IDENTITY

Identity of a region principally refers to its global location and the physico-socio-eco-cultural ambience with its historical backdrop. Such an identification to be unravelled is of utmost significance especially for geographical research that attempts to correlate the geomorphic environs with the issues to be focused in the respective study. Accordingly, introducing the identity of the area under current study is required in order to investigate the areal geographical imprint on the process of urban-rural linkage generating therein.

The present study has dealt with West Bengal as a macro area of study

The present scene of urbanisation in West Bengal is characterised by “the overwhelming role of primate city (Calcutta), the wide gap between the former and the other major cities in the region in terms of population size, economic activities and cultural influence, and the predominantly rural character of the other areas in the region.”¹(Dasgupta, 1988, p.9)

For micro level study, two districts of North Bengal – Jalpaiguri & Koch Bihar have been selected (ref. Fig 2.1). The rationale for selecting these two districts in particular has been given in ‘Introduction’. A detailed description (emphasising the demographic and urban evolution) of the study area has been presented here.

2.1 Koch Bihar: A District Profile

The district of Koch Bihar*, in the north-eastern frontier of India, is included in the Jalpaiguri division of West Bengal. It lies between 25°58'N-26°33'N latitudes and between 88°48'E-89°55'E longitudes. Geographically it forms a part of the Himalayan Terai of West Bengal. With the exception of a few kilometres at the extreme southern tip of Tufanganj subdivision where the river Raidak forms the boundary and for about

*[Spelling is according to that given in Census of India, 1991 & 2001]

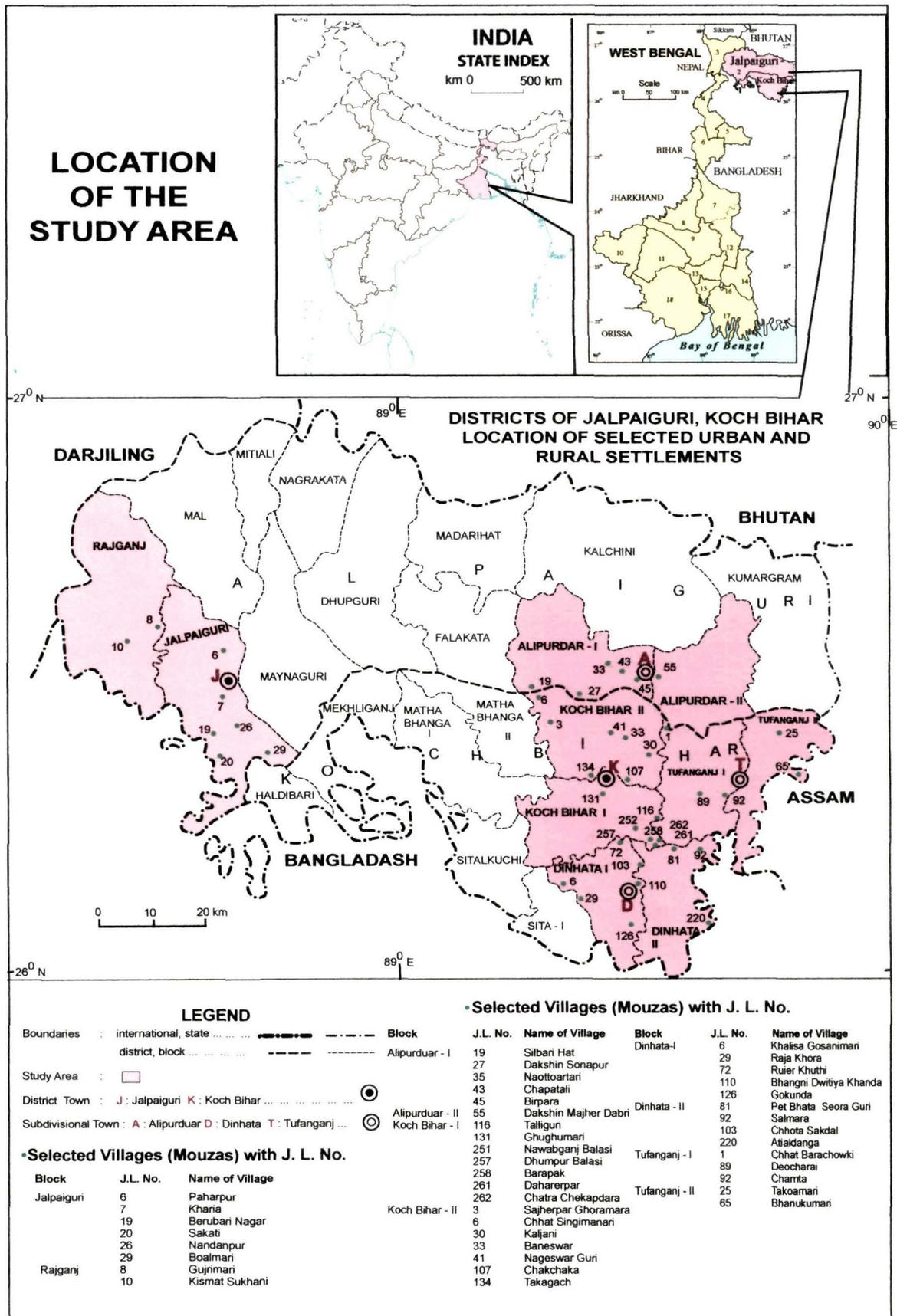


Fig 2.1

8 km to the north of Mekhliganj P.S. where the river Jaldhaka forms the boundary, there is no natural boundary of the district. On the north and on most part of the west this district is bounded by the district of Jalpaiguri, the much indented southern boundary is formed by the Rangpur district of Bangladesh and on the east it is bounded by the Goalpara district of Assam. The total area of the district is 3387sq.km. Besides the congregated area included in the boundaries of the district, there are enclaves or *chhits* which are outlying and detached tracts of land situated inside the district of Rangpur in Bangladesh.

The name of Koch Bihar is a compound of two words-Koch and Bihar and thus the word Koch Bihar means the abode or land of Koch or Rajbanshi communities. The name has been transformed from Kamata Bihar, Nij Bihar, Behar, Cooch Bihar and then to Koch Bihar during its long heritage. It is quite difficult to decide “whether the district took its name from the capital city or the capital city took its name from the name of the country.”²(Majumdar, 1977, p.2). According to another opinion, the area of Koch Bihar is situated by the side of the river Sankosh and from the name of ‘Kosh’ the term ‘Koch’ has been derived and, added with ‘Bihar’ it refers to a place near the side of river Sankosh.

2.1.i Evolution of the District

The history of evolution of the district indicates that the region has a long legacy. It was a part of Kamrup or Pragjotishpur Kingdom in the north-eastern part of India. The real history of Koch Bihar is interlinked with the history of the Koch Kings, who ruled this territory from 1510--1950. The boundaries of Koch Bihar and Jalpaiguri had been determined in the year 1955, by which thirty four *chits* of Koch Bihar were transferred to Jalpaiguri.

In 1510, Biswa Sinha founded an independent ‘Koch’ Kingdom in the Eastern part of India and from this time this Kingdom was a small but powerful one with an area larger than the present area of the Koch Bihar district. At that time the name of the kingdom was ‘Kamtapur’. Following a treaty in 1773, between the then King of Koch Bihar, Dhairjendra Narayan and the East India Company, Koch Bihar became a

tributary State under the British Empire. From 1773 to 1840, it was an independent State after which it came under the control of the British Government. During the reign of King Nripendra Narayan (1863-1911), Koch Bihar came to be regarded as a modern state with new ideas in all aspects of the human life and in different sections of administration. Thus, until 28th August 1949, Koch Bihar was an Indian State ruled by the Maharaja of Koch Bihar who had been a feudatory prince under the British Government. By an agreement dated 28th August 1949, Maharaja Jagaddipendra Narayan of Koch Bihar ceded his full and extensive authority, jurisdiction and power of the State to the Dominion Government of India. The transfer of administration of the State to the Government of India took place on 12th September, 1949. Eventually, Koch Bihar was transferred and merged with the province of West Bengal on 1 January 1950. Since then, Koch Bihar is being administered as a district of West Bengal.

2.1.ii Physical Aspects

The topography of Koch Bihar is essentially flat with a slight north-west to south-eastern slope. The greater part of the district is cultivated and is composed of green fields studded with timber trees and an inferior variety of orange trees.

Six river systems cut through the district flowing in a south-easterly direction are: 1) the Tista system, 2) the Jaldhaka system, 3) the Torsa system, 4) the Kaljani system, 5) the Raidak system and 6) the Sankosh or Gadadhar system.

The soil of Koch Bihar is alluvial of very recent formation. The surface soil is sandy loam.

The flora of the district may be enumerated as palms, bamboos, plantains, medicinal plants and herbs, creepers, aquatic plants and woods, ferns and orchids, fungi, timber trees, bamboos, flowers, minor grasses, vegetables etc.

The climate of this district is characterised by a highly humid atmosphere and abundant rains, with temperatures being seldom excessive. The mean daily maximum and minimum temperatures in cold season are 24°C and 10.4°C respectively, while

those for hot season are 32.5°C and 20.2°C respectively. The average annual rainfall of the district is 3201.3mm.

2.1.iii Socio-Economic setting

The economy of the district of Koch Bihar is predominantly agrarian. Among the agricultural crops Aus Paddy and Jute are the pre-kharif crops, Aman Paddy is the kharif crop and in the Rabi season tobacco, oilseeds, pulses, mustard and wheat are grown in plenty in this territory. The district is the major tobacco growing area of the state. Tobacco of good quality is an important cash-crop in the Dinhata sub-division of the district. Jute is another important cash-crop in this area. Paddy is produced in all parts of the district due to the fertile nature of the soil. During the recent years the district has made remarkable progress in the cultivation of winter vegetables. This district is rich in land fisheries resources as considerable number of fishes of all varieties is available in tank, beels (shallow depressions) and closed canals and rivers. As such, fishery is also an important occupation for the people of the area.

The district of Koch Bihar has been generally considered as an industrially backward district. This is mainly due to its locational disadvantages and the dearth of other infrastructural facilities and inputs. Abundant local skills is observed in a few trades only e.g. Pati (mat) making, Bamboo craft including Bamboo matting, Pottery, Dhokra and Fatia, Handloom, Bidi making, Carpentry, Bakery etc. Some other skills are developing e.g. Tailoring, Readymade garments, Machine Wool Knitting, Repairing of machine parts etc. Sericulture, an agro based labour oriented intensive cottage industry, is a completely non-traditional trade in this district. As the climatic condition of this region is congenial for the development of this industry, it promises a vast potential.

Dinhata, Haldibari, Tufanganj, Mathabhanga and Mekliganj are all important centres of trade, engaged in the purchasing and selling of tobacco, jute, paddy, bamboo and timber materials. Koch Bihar town is also a large commercial centre engaged in trade with the border state of Assam.

The different parts of the district are well connected by the state transport systems. The motorable roads in the district are 356.81 km long. A broad gauge line of the North East Frontier Railway connects different parts of the district with Delhi, Kolkata and Guwahati. The National Highway no.31 passes through the district and there is a small airport near Koch Bihar town.

From the administrative viewpoint, the district comprises five sub-divisions, nine police stations, and twelve community development blocks as administrative units. There are six municipal towns and three non-municipal towns and the total number of mouzas, as per jurisdictional list, is 1165.

The demographic record of the district of Koch Bihar in 1872 presents the total population as 532565. The 1881 census disclosed 602,624 souls, pointing to a 13.15% increase. In 1891, the total population was ascertained to be 578,868, which showed a decrease of 3.9%, due to the two cholera epidemics, unhealthy climate, scarcity of food and partly due to migration to the tea gardens of Western Duars in the adjoining district of Jalpaiguri. A further decelerating trend in the growth rate has been noted for the total, rural and urban population during 1901-1931, along with the negative growth in 1931 for total and rural population (Table 2.1). The factors responsible for this decline are claimed to be influenza epidemic, cholera and smallpox epidemics of 1928 and 1929. The increase of population that started in 1941, has continued till now, though variations in terms of rise and fall are there in the intra-census years (Table 2.1) The pattern of the growth rate of rural population and that of the total population is at great variance with that of the urban population, the former showing positive as well as negative growth while urban population has maintained positive growth throughout the period (1901-2001). Urban population started increasing rapidly since 1941-1951, following the partition-induced migration and the emergence of two new municipal towns. But from 1971 till recent times, the growth has become almost stable. Figure 2.2 makes it clear that the growth rate of urban population has been higher than the rural growth rate till 1951, while in the decades 1961 and 1971 rural growth rate surpassed that of urban. But after that, the urban growth rate has again superseded the rural one continuing till recent years.

Table 2.1 Growth of Population in Koch Bihar district: 1901-2001

Year	Total Population		Urban Population			Rural Population
	Number	Decadal Variation (%)	Number	Percent share	Decadal Variation (%)	Decadal Variation (%)
1901	568,116		14,060	2.47		
1911	590,912	4.01	15,794	2.67	12.33	3.80
1921	592,489	0.27	17,261	2.91	9.29	0.02
1931	589,053	-0.58	18,030	3.06	4.46	-0.73
1941	638,703	8.43	26,821	4.20	48.76	7.16
1951	668,949	4.74	50,180	7.50	87.09	1.13
1961	1019,806	52.45	71,446	7.11	42.38	53.27
1971	1414,183	38.67	96,652	6.83	35.28	38.93
1981	1771,643	25.28	122,260	6.90	26.50	25.19
1991	2171,145	22.55	169,497	7.81	38.64	21.36
2001	2479,155	14.19	225,618	9.10	33.11	12.58

Source: West Bengal District Gazetteers (Koch Bihar), District Census Handbook of Koch Bihar

The level of urbanisation in the district of Koch Bihar, represented by the percent share of urban population to total population, has been very low throughout the hundred year period. At present it is much below the state's average. The extent of urbanisation in Koch Bihar district is 7.85% and 9.10% respectively in 1991 and 2001. The reasons for this poor progress of urbanisation may be the climatic constraints and the extremely poor economy coupled with lack of transportation facilities "discouraged congregation of people and activities...and made the situation far from conducive to urbanisation. Even the State of Koch Bihar, economically much better-off, did not give rise to another town for a space of another century or so"³ (Bhattacharya, 1983-1984, P.187). In 1901, the population of the then State was contained in 1192 villages and four towns viz., Koch Bihar, Dinahata, Mathabhanga and Haldibari.⁴(The Imperial Gazetteer,1908, p.383).

Decadal Variation of Urban and Rural Population: Koch Bihar District

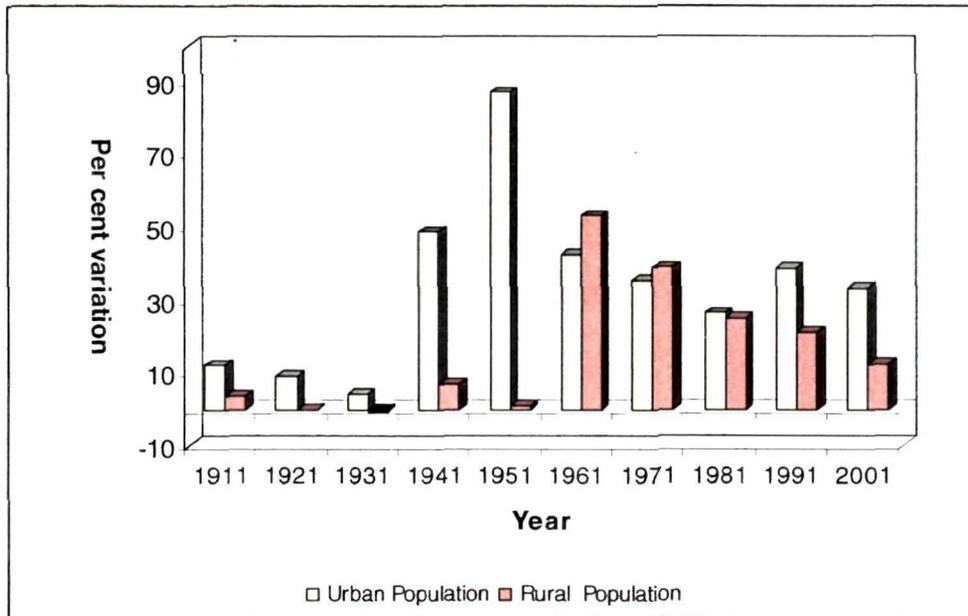


Fig. 2.2

Looking through the mirror of the District Census Handbook, it can be seen that in the year 1901 except Koch Bihar, the three towns of Dinhata, Mathabhanga and Haldibari had a population size of slightly above 1000, i.e., 1207, 1112 and 1283 respectively. Koch Bihar had a population base of 10,841. Thus, urbanisation was at its nascent stage in the district at the beginning of the 20th century, though the early history of urbanisation in West Bengal and particularly in North Bengal may be traced back to this district unlike the district of Jalpaiguri (the other study region of the present research). The year of 1941 gave birth to the two municipal towns, Mekhliganj and Tufanganj with 1298 and 1412 population respectively. Later on in 1971, Guriahati, a non-municipal town was added with Koch Bihar municipality, thereby transforming it into an urban agglomeration. In 1981, the outgrowth of Kharimala Khagrabari was adjoined with the already formed Koch Bihar urban agglomeration. In 1991, Dinhata town became an urban agglomeration with the adjoining non-municipal town named Bhangni Pratham Khando. In 2001, Khagrabari, the rural neighbour of Koch Bihar town has been upgraded as a census town and attached with the urban agglomeration. Apart from Koch Bihar and Dinhata, the district does not have any other urban agglomeration, which implies that the phenomenon of urban sprawl has become evident in case of these two towns.

According to the 2001 census, there are six municipal towns and four non-municipal towns. Figure 2.3 shows the location of urban centres in Koch Bihar district. Koch Bihar, the district capital (76,874) is followed by Dinhata with 34,273 population. Mathabhanga with 21,107 comes to the third position followed by Tufanganj (19,310), Haldibari (13,185), and Mekhliganj (10,835).

So, the nascent state of urbanisation in the district of Koch Bihar and its slow rate even in 2001 may be ascribed to its non-industrial base and its distance from Kolkata, the state capital around which urbanisation of the state has mostly become polarized.

2.2 Jalpaiguri: A District Profile

The district of Jalpaiguri, a border district located in the Northern sector of West Bengal, lies between 26°16'-27°0' north latitude and between 88°4'-89°53' east longitude. Bounded on the north by Darjiling district and Bhutan, on the south by the district of Koch Bihar and the district of Rangpur of Bangladesh, on the east by Assam and on the west by the district of Darjiling and Bangladesh, the district is shaped as an irregular triangle whose total area is 6237.6sq.km.

The district has been so named after its principal town Jalpaiguri, which is also the divisional and district headquarters' town. The nomenclature of the district has its derivation from the words 'Jalpai' meaning olive trees and 'Guri' or place, and thereby referring to the place with plentiful olive trees. Another version of the name is associated with 'Jalpes', i.e., 'Siva', the presiding deity of the entire region from time immemorial. Situated on the land of the lower Himalayas, Jalpaiguri is a unique district with its "geographical diversity, traditional history, colourful ethnic-groups, miscellaneous linguistic and religious groups and beautiful natural sceneries" (Census, 1991, p.xvi)⁵.

2.2.i Evolution of the District

As an administrative unit, the district of Jalpaiguri had no existence till 1869 and thus it may be regarded as a new district in the administrative map of Bengal

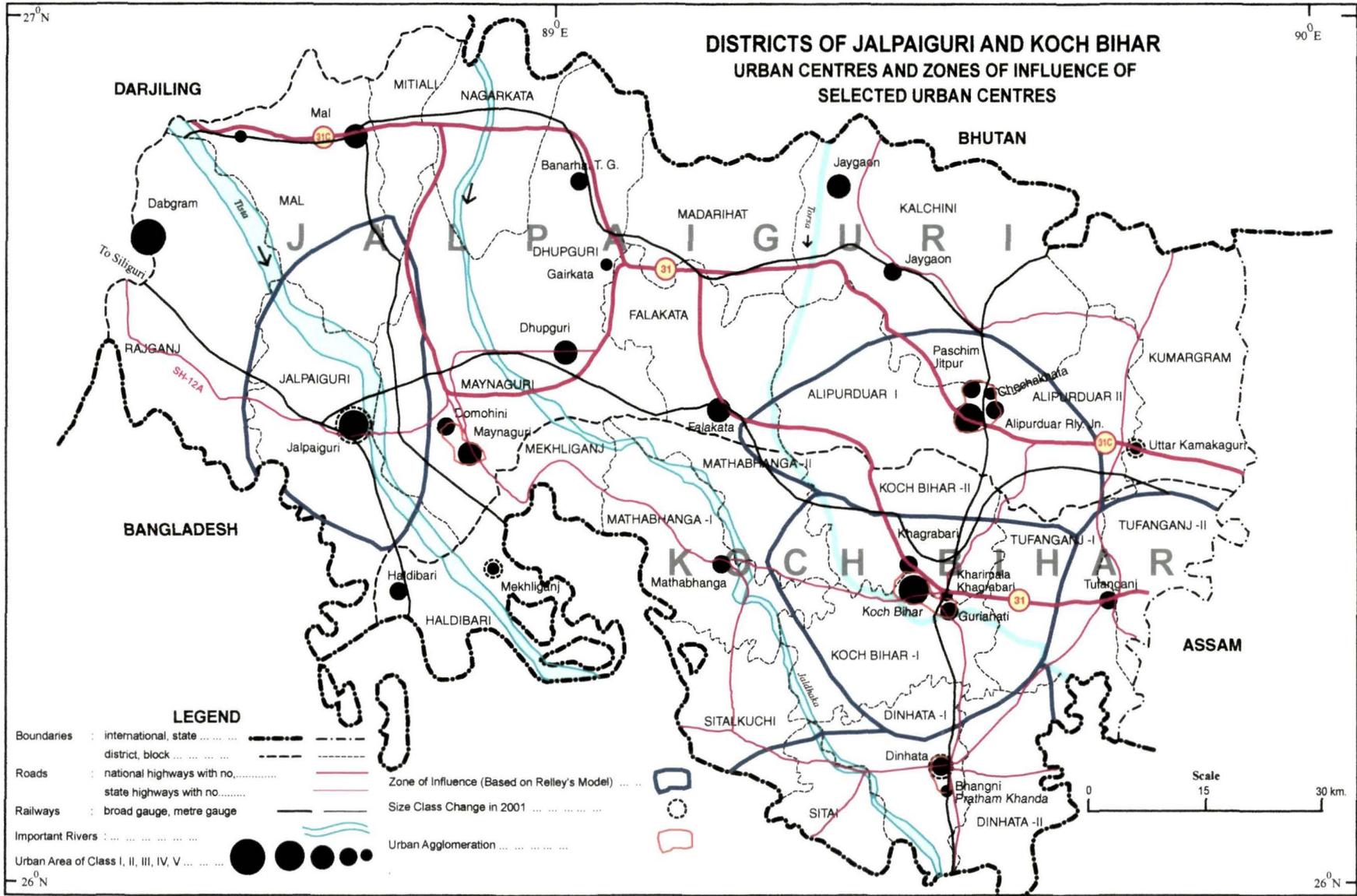


Fig 2.3

from 1st January, 1869. When it was formed it comprised two separate and distinct areas of the region namely (a) Western Duars (since 1865) and (b) Jalpaiguri and Rajganj police stations of Rangpur district (since 1869). Before 1869, the Western Duars was a separate district and the areas covering Jalpaiguri and Rajganj were included in the Jalpaiguri subdivision in the Rangpur district now in Bangladesh (from 1854 to 1869).

In past period, the Duars area covering this district was included in the Kamptapur and later in Koch Bihar Kingdom. Before British advent, the Bhutians separated Duars from the kingdom of Koch Bihar and ruled over it. After the Second Bhutan war in 1864, the area came under British rule.

Although the district is of recent creation, several important changes have taken place in its boundaries and jurisdictions. At the close of the Bhutan war in 1864, the British retained possession of the low, fertile strip of country lying along the base of the Bhutan hills, together with the mountainous tract of Dalingkot. The annexed area was formed into the two Districts of Western and Eastern Duars, of which the latter has since been incorporated with Goalpara district of Assam. The Western Duars, after its annexation, was divided into three subdivisions; namely, 1) the Sadar or principal (Jalpaiguri) subdivision, comprising the tract of land between the Tista and the Torsha rivers, with its headquarters at Maynaguri; 2) the Buxa sub-division, extending from the Torsha to the Sankos river, and bordering on the Eastern Duars, with its headquarters at Alipurduar; and 3) the Dalingkot sub-division, co-extensive with the mountainous tract of the annexed territory. From 1st January 1867, the Dalingkot sub-division was transferred to the Darjiling district. On 1st January 1869, the incorporation of Titaliya subdivision of Rangpur district On 1st January 1869, the incorporation of Titaliya subdivision of Rangpur district with the Western Duars, formed into a new district of Jalpaiguri, with its headquarters at Jalpaiguri town, on the west bank of the Tista river. Thus, the life span of the district of Western Duars was only between 1864 and 1868 which lost its separate identity with the formation of Jalpaiguri District in 1869.

Historically, the development of the district started only after the growth of the tea plantations which began in 1874-75 and continued till 1900 for the same reason. The Western Duars which had once been a very thinly populated forest area became

gradually populated with the development of inhabited villages. During 1901-1947, the district developed due to large migration of people from outside and the establishment of a broad gauge railway changed the socio-economic activities of the people. After partition in 1947, five police stations of the southern sector of the district were transferred to Bagura district in the erstwhile East Pakistan and from that period, the district began to lose its importance as a district in the administrative map of Bengal.

2.2.ii Physical Aspects

The District of Jalpaiguri is a part of two geographical regions known as 'Duars' and 'Tarai'. The land in the eastern part of the river Tista is Duars and the west part of the Tista is called 'Tarai'. The 'Tarai' region is characterised by a continuous expanse of level land. "The country is level and open, dotted with numerous homesteads of *jotdars*, each enclosed in its shady grove of bamboo, plantain, mango, jack, and betel-nut trees... There is little appearance of waste land along the banks of the numerous small streams and watercourses..."⁶ (Hunter, 1876, p.223).

In the northern sector of the district land is undulated, high and low, deep and plain. East of Tista, a strip of submontane country hemmed in between Koch Bihar on the south and the Bhutan on the north is known as the Western Duars. This part of the district is flat except in the north-east corner, where the Sinchula Hills rise abruptly to a height of from 4000'-6000'.

The principal rivers of the district, proceeding from west to east, are---the Mahananda, Karotoya, Tista, Jaldhaka, Duduya, Mujnai, Torsa, Kaljani, Raidak and Sankosh, which all flow down from the northern hills in a south-easterly direction and ultimately discharge their waters through various channels into the Ganges or the Brahmaputra. Except in the Buxa hills, the geology of the district is mainly characterised by recent alluvial deposits with coarse gravels in the foothills, sandy clay and sand along the course of the rivers, and fine sand consolidating into clay in the other parts of the river plain. A series of beds of slates, quartzites, dolomites have composed the Buxa hills. Along the base of the hills masses of calcareous tufa occur extensively.

The greater part of the district is covered by fertile alluvial soil. In the basin between the Tista and Jaldhaka a hard black clayey soil is found. The soil for the most part derives sufficient moisture from the heavy rainfall.

The climate of this district is similar to that of the districts in the plains to the south, but owing to its proximity to the hills, temperature is rarely excessive and rainfall is much heavier.

The floral configuration of the district, as manifest in the three forest divisions, viz., 1) Jalpaiguri Forest Division 2) Baikunthpur Forest Division and 3) Buxa Forest Division, contains commercially valuable deciduous trees such as Sal, Jarul, Pine, Fur, Debdaru, Segun etc. The district with Jaldapara and Garumara wild life sanctuaries is famous for its faunal reserve.

2.2.iii Socio-Economic setting

The economy of Jalpaiguri district is chiefly centred on agriculture and plantation, of which agriculture has absorbed majority of the population. The agrarian predominance was also recorded in the third quarter of the nineteenth century by Hunter who cited the Deputy Commissioner's estimates that "forty-nine out of every fifty people in the District are engaged in agricultural pursuits, more or less. Even the castes who are hereditarily attached to occupations unconnected with agriculture, either possess land, or hold leases of land, which they cultivate themselves, and on the produce of which they mainly depend for subsistence, their caste occupation being looked upon merely as a subsidiary means of obtaining a livelihood"⁷ (Hunter, 1876, p.256). Intensive farming is undertaken on 869 thousand acres of agricultural land. The total area under food grains is 342 thousand hectares of land. Rice, Jute, Pulses, Sugarcane, Tobacco, Oilseeds etc. are produced in large quantities. Tobacco, an important crop of this district, is cultivated on a large scale in the middle portion of the land between Tista and Jaldhaka rivers. Tea is the most important plantation crop of this region, produced in 161 tea plantations located in the eastern portion of the district. The tea plantation area of the district is estimated at 59.8 thousand hectares of land. Orange is also an important plantation crop of this district. In general, this district is

internationally famous for its tea and timber, which have provided employment to a large section of people.

In Jalpaiguri district, the “only mineral of importance is limestone”⁸ (The Imperial Gazetteer of India, p.37) quarried along the base of the Bhutan hills in the form of calcareous tufa. The lignite is found in the west side of Jayanti river.

The industrial backbone of this district is constituted by its handicraft products, including manufacturing of cane and bamboo products, cotton weaving, mat weaving, candle making, bidi making, pottery, silver and gold ornaments, clay toys etc. Besides, the small scale industries are rice and oil milling, wheat and spices grinding, stone-crushing, saw-mills, automobile workshops, engineering workshops, carpentry, tea-chest manufacturing etc.

The trade of the district depends on the three ‘T’, as the principal commodities exported from the district are tea, timber and tobacco. Dhupguri, Mainaguri, Falakata, Gayerkata, Birpara, Banarhat, Samuktala are the important trading centres of the district.

The transport network of the district is represented by broad gauge railways of NFR connecting Kolkata and Haldibari, Kolkata and Samuktala(Assam border), Katihar- Kamakhyaguri, Silliguri-Alipurduar and the National Highway no. 31 connecting Guwahati, Delhi, Patna, Lucknow, Kolkata etc. with the different areas of the district. The State Highway connects the district headquarter with the subdivisional headquarters and most of the block headquarters.

The administrative arrangement of the district is demonstrated by its two sub-divisions, namely the Sadar and the Alipurduar with their headquarters at Jalpaiguri and Alipurduar respectively. These two sub-divisions comprise nine and seven police stations respectively. The thirteen Community Development Blocks of the district are constituted by 753 villages of which 734 are inhabited and 19 uninhabited, and 15 towns of which 12 are Municipal and 3 are non-municipal towns.

The salient demographic features of the district may be understood by a spatio-temporal investigation. Concerning population, Alipurduar police station is the largest, followed by the Jalpaiguri Sadar police station. Both these police stations include municipal towns within their bounds and it is primarily due to the existence of the towns that these two areas are populous. The demographic evolution of the district is recorded in the *Imperial Gazetteer* and the *Gazetteer of Bengal and North East India*, according to which a continuous growth of population from 417,855 in 1872 to 580,570 in 1881, to 680,736 in 1891 and to 787,380 in 1901 has occurred due to the rapid development of Western Duars. Moreover, more than one-fifth of the population in 1901 was composed of immigrants. [(*Imperial Gazetteer*, 1908)⁹ and (*Gazetteer of Bengal and North East India*, 1993)¹⁰] But these figures do not seem to be accurate, when we look through the census of 1901. Table 2.2 gives an idea of decadal variation of population in the district as a whole and its rural and urban components from 1901 to 2001.

The picture conveyed by the table is that though there has been a steady rise in the absolute figures of the total as well as urban population of the district over a centurial period, yet the decadal growth rates show few rise and fall particularly for the total population. A close examination suggests that the growth rates for total population have mostly been represented by the growth pattern of rural population in contrast to that of the urban areas.

The district recorded a sustained growth from 1901 to 1921. When rural Bengal suffered a 4.43% decline in population during 1911-21, rural Jalpaiguri registered a 4.55% rise in population. According to the West Bengal District Gazetteers (Jalpaiguri), between 1872 and 1921, the population of the district had increased by 244.2 percent. "In the same half-a-century, the population of Alipurduar subdivision had increased by a fantastic 1042.3%. No other part of Bengal had in a period of comparable span, after the advent of Census, recorded such increase in population."¹¹ (West Bengal District Gazetteers, Jalpaiguri, 1981, p.72) Large-scale immigration of land-hungry people from Rangpur, Dinajpur, Pabna, Malda, Rajsahi, Bogra, Goalpara and Mymensingh districts, belonging to present Bangladesh, counts for this

Table 2.2 Growth of Population in Jalpaiguri district: 1901-2001

Year	Total Population		Urban Population			Rural Population
	Number	Decadal Variation (%)	Number	Per cent share	Decadal Variation (%)	Decadal Variation (%)
1901	546764		10289	1.88		
1911	663222	+21.30	11765	1.77	+14.34	+21.34
1921	695946	+4.93	14613	2.1	+25.91	+4.55
1931	740993	+6.47	18962	2.56	+28.01	+6.00
1941	847841	+14.42	27776	3.28	+46.43	+13.58
1951	916747	+8.13	66145	7.22	+138.22	+3.72
1961	1359292	+48.27	123814	9.11	+87.19	+45.25
1971	1750159	+28.75	168080	9.60	+35.75	+28.05
1981	2214871	+26.55	311221	14.05	+85.16	+20.32
1991	2800543	+26.44	458247	16.36	+47.24	+23.04
2001	3401173	+21.45	606882	17.84	+32.44	+19.30

Source: West Bengal District Gazetteers (Jalpaiguri), District Census Handbook of Jalpaiguri

unprecedented population growth. Actually the vast uninhabited forest tracts and cultivable waste lands, especially in the Alipurduar subdivision, were the points of attraction. The new economic activity centring the tea gardens of the district was another factor encouraging immigration of labourers from the different districts of West Bengal, Bihar and Orissa. "The growth of tea plantation and industry also encouraged ancillary activities in both rural and urban areas of Jalpaiguri favouring further immigration which tapered off around the nineteen twenties"¹² (West Bengal District Gazetteers, Jalpaiguri, 1981, p.72)

During 1921-1951, the population growth rate declined and fell below the growth rate of Bengal. The partition in 1947 leading to immigration of the Hindu Refugees from the erstwhile East Pakistan doubled the district's growth rate of

population in 1951-61 than that of West Bengal. In the following decades the rate of growth declined steadily. An interesting fact revealed by table 2.2 and figure 2.4 is that except in 1911, the growth rates of urban population have always been higher than that of the total and rural population.

This fact indicates that though population of the district has grown in a sluggish nature over the period of 100 years, the urban population has experienced a rapid increase during the same time period. A recognisable change in the growth pattern has been detected from the decade 1941-51, following which the rate of growth is on the higher side than that earlier. "To be specific, the period 1941-51 makes, so to say, the major watershed in the increase of urban population, recording the highest increase ..."¹³ (Bhattacharya, 1983-84, p.192). Massive political immigration from the erstwhile East Pakistan after 1947 (as discussed earlier) and from Bangladesh after 1971 had some effects on the urban areas. But that was not enough to account for the unprecedented growth. In 1951 the addition of Alipurduar as a new town with nearly 25,000 heads raised the growth rate substantially.

Contrary to this rapid increase of urban population, the level of urban population (as expressed by the percentage share of urban population to total population) has been low throughout this time period, in comparison to the other districts of the state and also in comparison to the state's average. The extent of urbanisation in Jalpaiguri is 16.40% in 1991 while it is 17.84% according to 2001.

It may thus be understood that urbanisation is a very recent phenomenon in this district. In this context, references may be made to the *Imperial Gazetteer* which states that during 1901, there were two towns—Jalpaiguri, the head-quarter, and Buxa cantonment at Alipurduar subdivision. "Outside these, more than half of the population are contained in villages....." (*Imperial Gazetteer*, 1908)¹⁴ (The District Census Handbook, Jalpaiguri later has not recognised Buxa Cantonment as a town if one scans through the growth history of the towns).

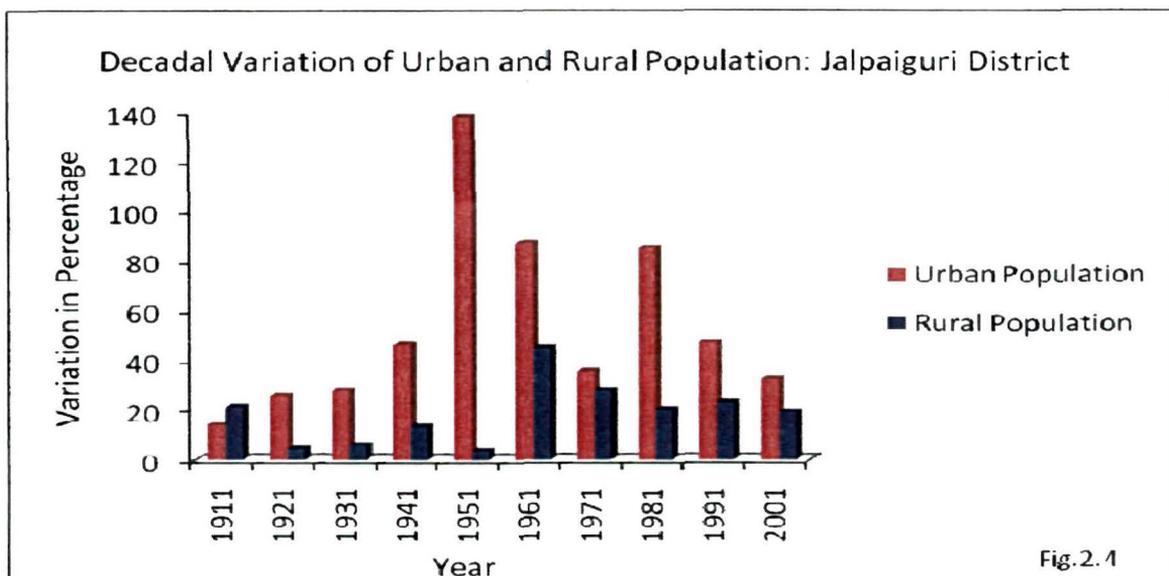


Fig.2.1

Later on, Buxa lost its urban status and therefore the town of Jalpaiguri has solely dominated the urbanscape till 1951 when Alipurduar has emerged as a second municipal town. Following this, 1961 saw the emergence of Malbazar municipality and Mainaguri, a non-municipal town. The two non-municipal towns of Dhupguri and Falakata were added to the scene along with the formation of urban agglomerations in Alipurduar and Mainaguri in 1971. 1981 gave birth to two more non-municipal towns, namely Uttar Latabari and Odlabari, while in 1991 Uttar Kamakhyaguri emerged as a non-municipal town. In 2001, Banarhat Tea Garden and Gairkata were upgraded as Census towns. The situational distribution of urban centres has been shown in Figure 2.3.

2.3 A Profile of Five Urban Centres and their Hinterlands

The following section presents a sketch of the five selected urban centres and their hinterlands. The urban hinterlands or zones of influences have been demarcated on the basis of Reilly's 'Law of Retail Gravitation'¹⁵ (Haggett, Cliff, Frey, 1977, p.32) which have been shown in figure 2.3. (Appendix I shows the breaking points in respect of complementary zones of the urban centres). Apart from the theoretical zones of influence, isolines have been drawn on the basis of the distances between the villages and their nearest town (the selected urban centres) and those isolines have been superimposed by the distance circles drawn from the respective urban centres. The villages, which are the centres of attraction in the present study, have been selected

from these superimposed distance zones. The location of the selected villages has been shown in figure 2.1.

2.3.i Koch Bihar

The town of Koch Bihar, the district headquarters of its namesake, is situated in 26°20'N and 89°27'E, on the left bank of the eastern channel of the Torsa. On the west of the town is the old loop of the Torsa called Mara (Dead) Torsa. On the east is the channel of the Bura (Old) Torsa which flows from north-west to south-east. The tract included between these two channels is the town of Koch Bihar. Since the devastating floods of the Torsa in 1954, a long embankment protects the town against the rising water level of the Torsa. It is situated at a distance of 710 km. from Kolkata.

Koch Bihar town has a long heritage. It was the capital of a kingdom of the once Princely State dating back to 1510 A.D. The planning of the town was made during those days, the imprint of which may be observed in present day along with its straight and broad roads intersecting at right angles. There are a number of tanks which served as the principal source of drinking water in the past.

Koch Bihar, having a population of 76874 according to 2001 Census, is now one of the main centres of trade in the district. The commodities marketed are tobacco, jute, rice, pulses and mustard seeds. A sizable quantity of jute and tobacco are exported by air. It is the headquarters of the North Bengal State Transport Corporation which maintains passenger services to Kolkata, Assam and Bhutan.

From table 2.3, it is observed that at the beginning of the 20th century, the population of the town was 10,458. It took a space of 50 years (1901--1951) for it to change from a class IV to class III status, but thereafter within three decades (1951—1971) it became a class II town transforming into an urban agglomeration. However, the vitality of the town was not of a very high order. The town experienced the maximum growth rate (108%) in 1951(table 2.3), which means that the town doubled its population within a single decade, undoubtedly as a result of in-migration caused by the Partition of Bengal in 1947. In 1971, the core urban area comprised about 86% percent share of population of the urban agglomeration while the rest was represented

by the concerned non-municipal accretion (Guriahati). In 1981, the percent share of core town was 84% and in 1991 the respective percentage declined to 77%. The year 2001 saw a much more reduced percent, i.e., 63%. Hence a steady trend of depopulation of the core urban area and repopulation outside the municipal boundary has been evident, which is a “sure indication of greater advantage of certain centres in giving rise to urban sprawl as well as subsidiary centres dependent on the mother-town.”¹⁶ (Bhattacharya, 1983-1984, P.196). That is why, though the core town has not yet reached a level of class I town even in 2001, the urban agglomeration can be categorised as a class I town with a population of 122,795.

With the increasing activities and functions along with the sprawling population, this urban centre of a prolonged tradition has acquired a position of a service centre not only for its own population but also for the rural neighbours in its surroundings. As illustrated in figure 2.3, the zone of influence of Koch Bihar town corresponds with those of Dinhata, Tufanganj and Alipurduar respectively in the southern, eastern and northern part. It is explicit that in southern and eastern part the town can draw people from more distant parts, i.e almost from a double distance than that of Dinhata and Tufanganj (ref. Appendix I). So, in eastern side it engulfs half the area of Tufanganj I Block, in the south it covers the northern section of Dinhata and in the west, it is extended up to the eastern part of Mathabhanga I and II blocks. But in its northern side, a part of Koch Bihar II block remains uncovered by the town's complementary zone because of the influence of Alipurduar in that part. Thus an approximate idea of the hinterlands of the selected towns can be obtained from figure 2.3.

Table 2.3 Growth of Population and Change in Size class of the selected Urban centres: 1901-2001

Towns		1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001
<i>Jalpai Guri</i>	Population	9,708	11,463	14,520	18,962	27,766	41,259	48,738	55,159	61,743	68,732	100,348
	Decadal Variation(%)		+18.14	+26.60	+30.59	+46.43	+48.60	+18.13	+13.17	+11.94	+11.32	+46.00
	Class	V	IV	IV	IV	III	III	III	II	II	II	I
<i>Alipur duar UA</i>	Population						24,886	28,927	54,454	71,573	102,815	114,035
	Decadal Variation(%)							+16.24	+88.25	+31.44	+43.65	+10.92
	Class						III	III	II	II	I	I
<i>Koch Bihar UA</i>	Population	10,458	10,841	11,461	11,837	16,000	33,242	41,992	62,664	80,101	92,820	122,795
	Decadal Variation(%)		+3.66	+5.72	+3.28	+35.17	+107.76	+26.11	+49.48	+27.83	+15.88	+32.30
	Class	IV	IV	IV	IV	IV	III	III	II	II	II	I
<i>Dinhata UA</i>	Population	1,207	1,833	2,290	2,516	3,536	5,848	11,306	11,737	14,536	23,848	38,386
	Decadal Variation(%)		+51.85	+24.93	+9.87	+40.54	+65.38	+93.33	+3.81	+23.85	+64.06	+60.96
	Class	VI	VI	VI	VI	VI	V	IV	IV	IV	III	III
<i>Tufan ganj</i>	Population					1,412	2,316	3,473	4,209	4,906	16,418	19,310
	Decadal Variation(%)						+64.02	+49.96	+21.19	+16.56	+234.65	+17.15
	Class					VI	VI	VI	VI	VI	IV	IV

Source: District Census Handbook, Koch Bihar, Village and Town Directory, 1991, Statistical Handbook, West Bengal, 2004

From figure 2.5 the location of the selected villages in Koch Bihar's hinterland can be identified in view of their distances from the nearest town- Koch Bihar and the distance circles drawn from Koch Bihar urban centre. It is found that the distance circles have spread much farther apart than the isolines of the actual distances, while comparing a distance circle having same value as that of an isoline. This is because of the fact that the road connection of a village with the nearest town-Koch Bihar reduces its ideal distance from the centre of the town, represented by the distance circles. Here, one should remember that the road connection implies bus connectivity of the village with the core town. Again, it has been found that the villages located beyond the theoretical hinterland of Koch Bihar in the northern part of the Koch Bihar II block, fall under the jurisdiction of Koch Bihar as their nearest town. For instance, the village Chhat Singimari (J.L. No. 6), although situated beyond the complementary zone (drawn on the basis of Reilly's model), is 25 km distant from Koch Bihar, which is the nearest town of the village. Our study has, therefore, considered the villages on the basis of their nearest town. From the hinterland of Koch Bihar, the selected villages are 14 which have been located in the five distance zones as depicted in figure 2.5.

2.3.ii Dinhata

Dinhata, a subdivisional headquarters, is located on the Koch Bihar-Gitaldaha Road, 25.6 km. to the south of Koch Bihar town. The Dharla, which is the southern channel of the Torsa passes by the west of the town. The metre gauge railway that passes by the east of the town has become broad gauge. This class III town (38,386) was born in 1901. But it grew up at so slow pace that it took a span of sixty years for its transformation from a class VI (1207) to a class IV town (11,306). The town has grown, however, faster after 1950. The unprecedented growth in 1951 and in 1961 sharply slumped in 1971 after which it resumed growing in size. The sudden and sharp fall in population of this town may be attributed to its location bordering Bangladesh, which pulled people away during 1971 Bangladesh War.

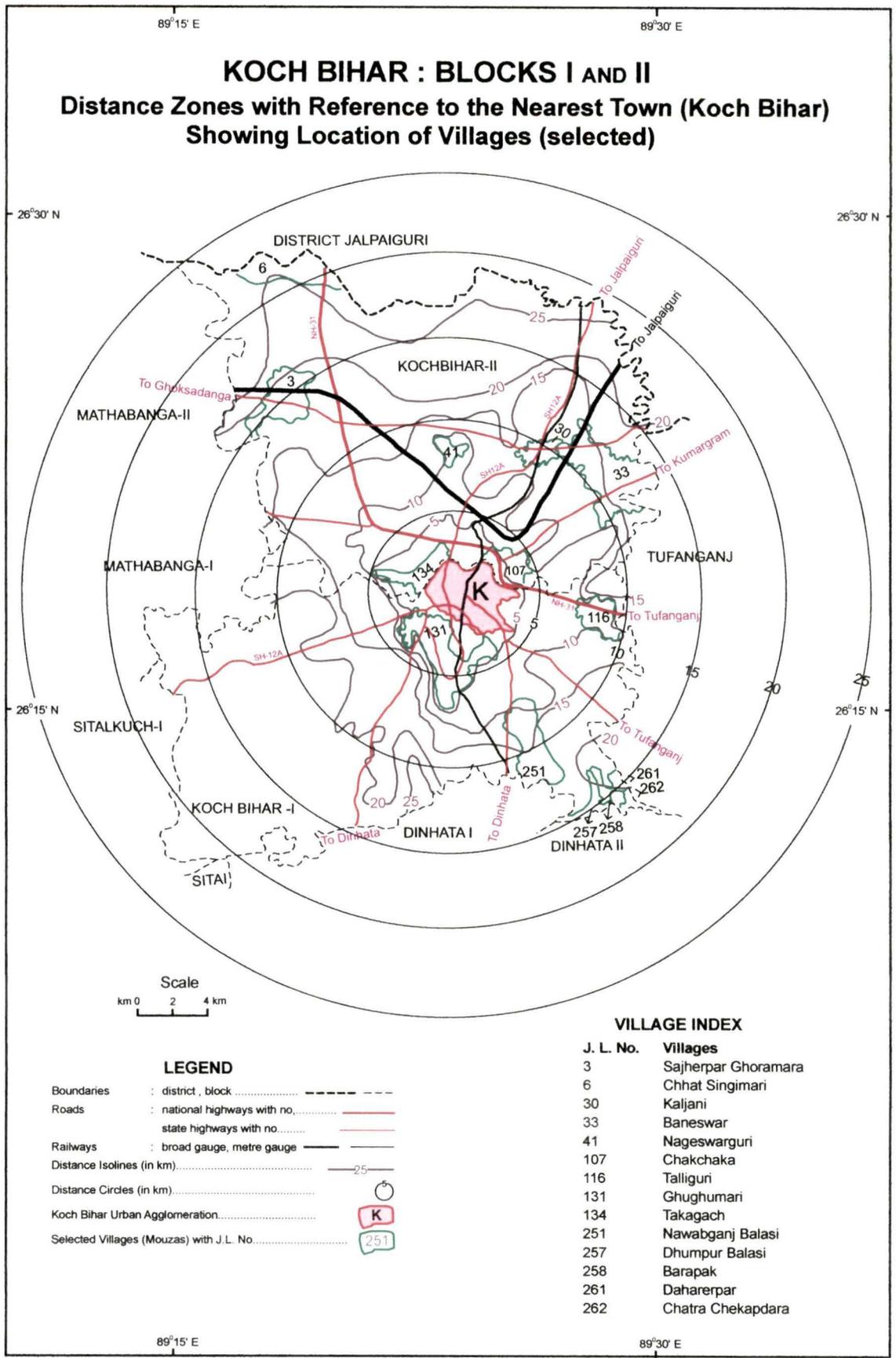


Fig. 2.5

However, equipped with urban infrastructural facilities, the town has some attractions for the villagers of its peripheries. The theoretical hinterland, as observed in figure 2.3, has been found to be restricted by international boundary in the entire southern, eastern and south-western part. The northern boundary has been formed by that Koch Bihar and the western boundary is made by the complementary zone of Mathabhanga. In general, this town has ideally a larger influence zone as compared to the towns of Tufanganj in the east and Mathabhanga in the west. (Appendix I)

Figure 2.6 depicts the situation of the Dinhata blocks I and II having the town of Dinhata and its hinterland villages. In the north western side of the town an inverse picture from that of Koch Bihar is observed as the isoline of 5 km. distance spreads beyond the ideal distance circle of 5 km. On this part no bus road exists. This fact implies that the absence of bus connectivity on this part has increased the actual distance of the villages from their nearest town (Dinhata). Besides this anomaly, the other parts resemble the picture as that of Koch Bihar.

A number of nine villages have been surveyed from Dinhata's hinterland. The location of these villages has been represented in figure 2.6.

2.3.iii Tufanganj

To the east of Koch Bihar town, the town Tufanganj is another subdivisional headquarters. It has a Block Development Office, a college, schools, hospital, etc. The town, situated at a distance of 735 km. from Kolkata is 25 km. far from the nearest railway station in Koch Bihar. The National Highway 31 has passed through the town and thus increased its connectivity.

The town is of much later origin than Koch Bihar and Dinhata as it emerged in 1941 in the urban landscape of the district. Unlike Koch Bihar and Dinhata, the urban sprawl of Tufanganj is not such evident as to transform it into an urban agglomeration.

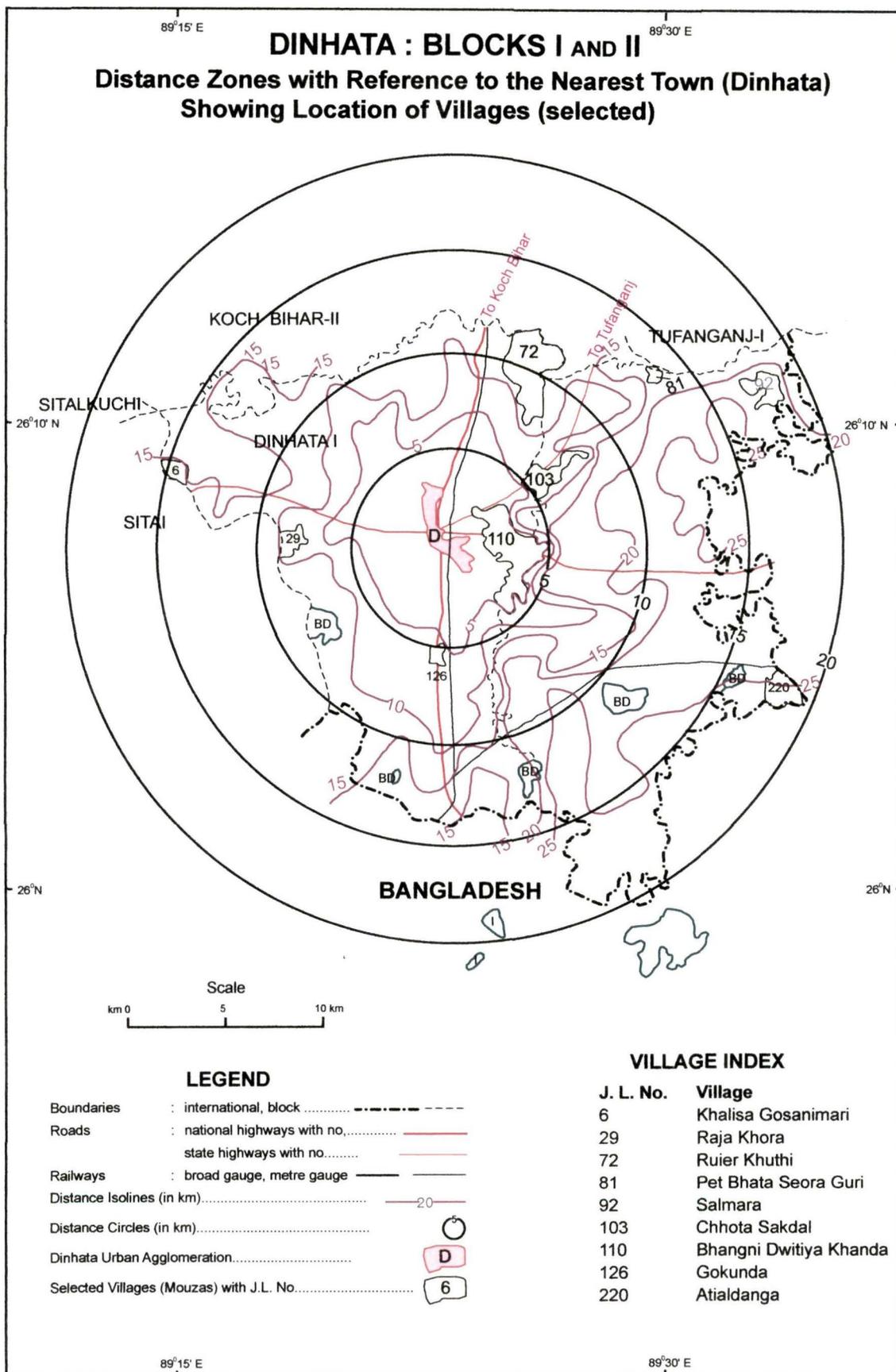


Fig. 2.6

According to its population size (19,310) in 2001 census, it is a small town with class IV status (ref. table 2.3). It has a population density of 5149.33, literacy rate of 81% and work participation rate of 33%. For four decades from the year of emergence, this town remained stagnant (class VI) at its original class till 1981 as the rate of growth was not high enough to give it a lift to the next higher class. But thereafter, in 1991 it made a big leap with a growth rate of 235%, rising to the level of a class IV town (Table 2.3). Migration from Assam was one of the reasons for such a high rate of growth. However the rate of growth has declined drastically during next decade, 1991-2001.

As a matter of fact, the well-knit communication network, represented principally by the NH 31, has uplifted the town from its earlier status and has thus increased its significance in rendering services to the hinterland population. The hinterland of the town, as depicted in figure 2.3, cannot be demarcated in the eastern and southern part because of the state and international boundary. According to the demarcated hinterland, the town extends its influence up to 7.5 km in the western part, and up to 12.5 km in the northern part it (appendix I)

In general, the alignment of NH31 along the central part of the block (ref. figure 2.7) has played a major role in reducing the distance of the villages from Tufanganj town. The location of five villages, selected for the present purpose has been shown in figure 2.7.

2.3.iv Jalpaiguri

Jalpaiguri, the main town of the district of Jalpaiguri, is the divisional headquarters, district headquarters and the subdivisional headquarters. It is the commercial and administrative core of the district and the chief centre for transaction in the tea and timber products in West Bengal. The town is located at the confluence of the Tista and the Karala in 26°32'N and 88°43'23"E and the urban area covers 12.50sq.km. The river Karala divides the town into two parts. It is 614 km. distant from Kolkata. The total population of the town is 100348 and the total number of households is 22063 according to 2001 census.

The township of Jalpaiguri was formed with its rural beginning, near about 1869,

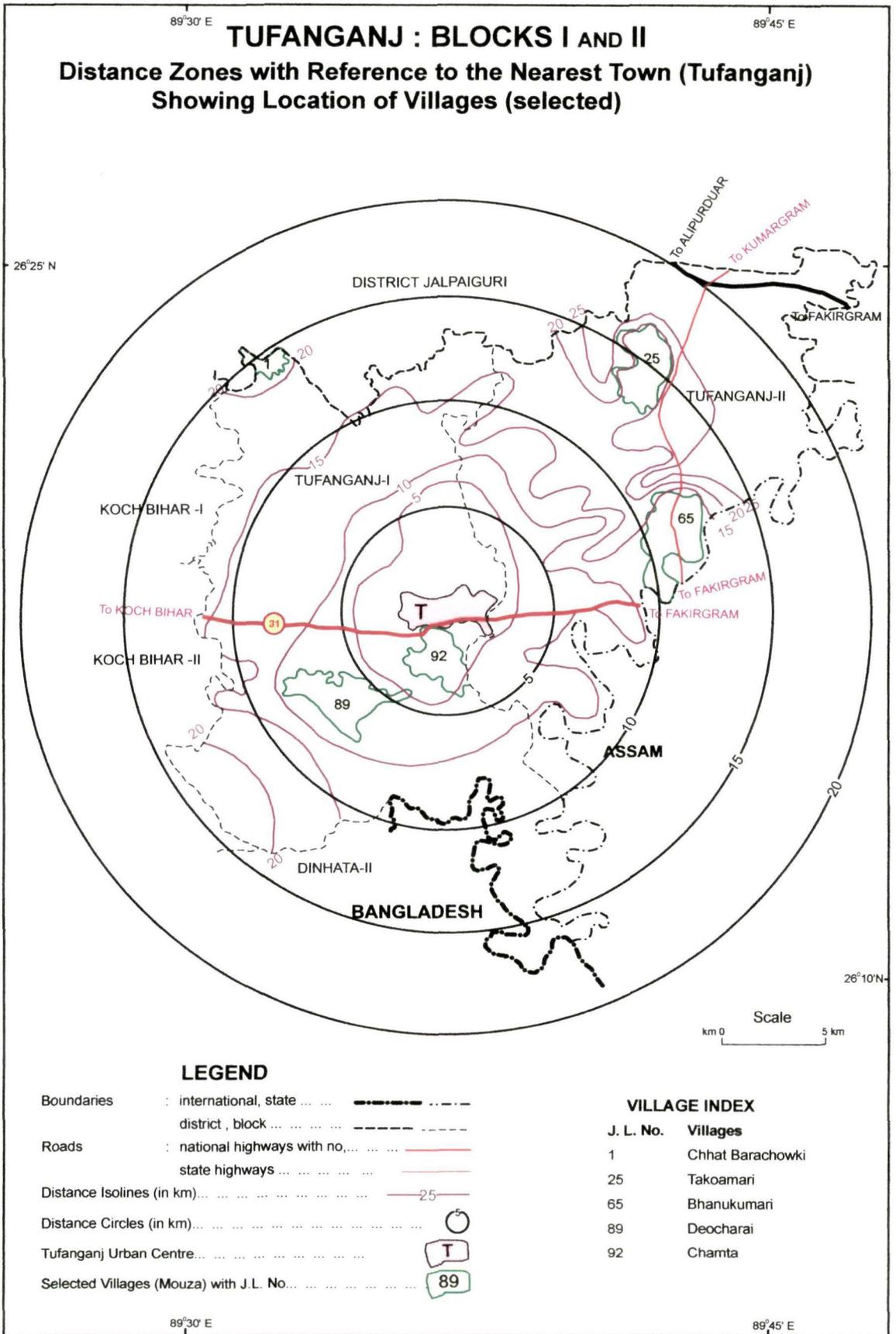


Fig. 2.7

100348 in 2001. Tourism has helped a lot to attract population and thus to upgrade the town from its earlier position in recent times.

In the district of Jalpaiguri, the shape of the theoretical influence zone of Jalpaiguri town is elongated, i.e. it is spread in a north-south direction, while that of Alipurduar is spread in east-west direction. (ref. figure 2.3). The shapes have been mainly controlled by the situational distribution of other urban centres. Thus, along the east-west axis, the complementary zone of Alipurduar extends over a much larger region, while from the northern side, Jalpaiguri can draw population from farther parts than Alipurduar. The theoretical influence zone of Jalpaiguri town extends to the blocks of Maynaguri, Mal, Mitiali and Rajganj on the western side, beyond the block of Jalpaiguri.

As illustrated by figure 2.8, the ideal and real distances have been almost matched in case of 5km and 20km (in the north western side) isolines in respect of the villages falling in the jurisdiction of Jalpaiguri as the nearest town. Otherwise, the spread of a state highway has decreased the actual distance of the villages to certain extent. A number of 8 villages (figure 2.8) from the distance-hinterland of Jalpaiguri town has been considered in the present study.

2.3.v Alipurduar

In the Duars area of Jalpaiguri district, Alipurduar is an important town, which is the chief business and communication centre. Situated on the north bank of the Kaljani river in 26°29'N and 89°32'E, it is a subdivisional municipal town with a population of 72999 (Alipurduar municipality) according to 2001 census. The Alipurduar municipality was established on 7 February, 1957. It sprawls over 9.80 sq.km. It is about 110 km. east of Jalpaiguri and 720km. away from Kolkata. This trading centre has a big railway workshop.

The town derives its name from the late Col. Hedayet Ali Khan who did laudable service in the Bhutan war and was stationed here as the first Extra-Assistant Commissioner. Formerly it was an unhealthy place owing to its swampy climate. Heavy rains last here from May to September and heat becomes oppressive here in hot weather,

when there is no rain. A number of the old beds of the Kaljani river are to be found here. The Alipurduar Junction and the Alipurduar stations of the North-East Frontier Railway are on the route between Howrah/Sealdah and Dibrugarh, the former also being on the routes between Lucknow and Guwahati and between Katihar and Lumding. The special significance of Alipurduar in the urban space of North Bengal is its identification as an urban agglomeration in 1971 after its amalgamation with the census town Alipurduar Railway Junction. Subsequently, three more non-municipal towns (Chechakhata, Paschim Jitpur and Sobhaganj) have joined to form the present urban agglomeration. Thus, similar to that of Koch Bihar, though the municipality has not stepped into the range of 100,000 population even in 2001, the urban agglomeration has reached the level of a class I town (i.e., population 100,000 and above) even in 1991. According to 2001 census, the demographic size of Alipurduar urban agglomeration is 114035, while that of the municipal core area is 72999. Hence, the actual municipality area comprises 64% population of the urban agglomeration and the rest 36% is of the adjacent non-municipal urban area, and these together coalesced to form the urban continuum. In the previous decades starting from 1971, the percent share of the population of the core urban area was slightly higher (i.e., 67-68%) than that of the recent decade, which is a sure indication of the marching of the town outside its statutory limit. The population growth and the associated changes in the status of the town in different census years from 1901-1911 have distinctly been explained by table 2.3.

For Alipurduar town, the theoretical hinterland covers the southern part of Kalchini block on its northern side and parts of north Koch Bihar district on its southern side apart from Alipurduar block I and II. (figure 2.3)

Regarding the distance hinterland of Alipurduar town, formed by the distance isolines and the distance circles, the situation (figure 2.9) is more or less uniform as the deviation from the ideal and the actual distance of the villages from the town of Alipurduar as their nearest town has been found to be large in almost all the cases as the isolines of actual distance have fallen much ahead of the ideal distance circles. A good road network radiating in all the directions from the urban centre may be the reason for this scenario.

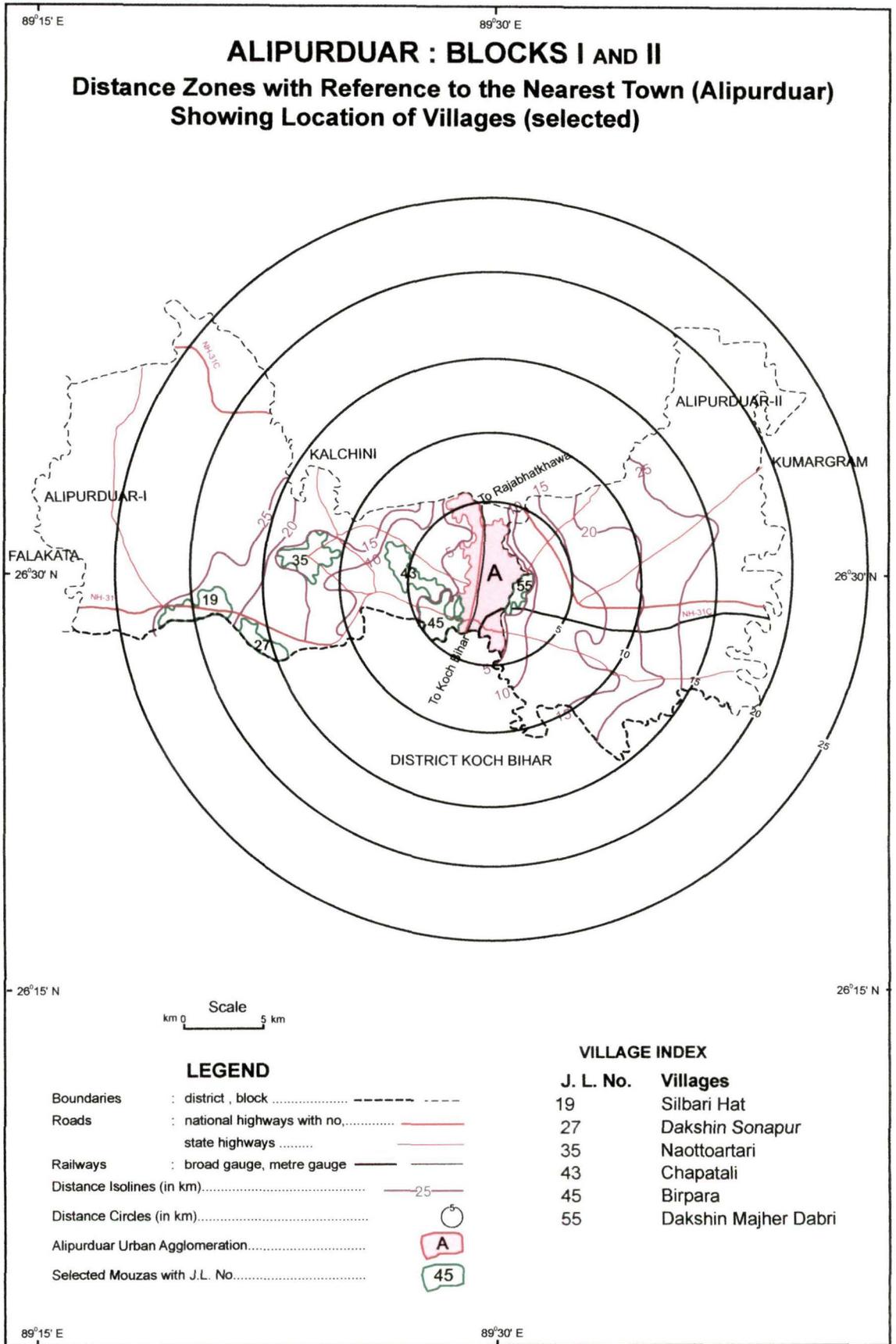


Fig. 2.9

While selecting the villages, a number of six villages (figure 2.9) which fall in the two matched zone of distance circles and the isolines of distance from the nearest towns, have been taken into consideration.

Thus, the total number of investigated (surveyed) villages in the hinterland of the five aforementioned selected towns are forty two (42), divided into twenty eight (28) villages in Koch Bihar district and fourteen (14) villages in Jalpaiguri district. Keeping in mind that the urban-rural interaction has been determined to a great extent by the proximity of the towns, these sampled villages have been stratified according to the distance from their nearest towns and thus distributed among the each distance-zonal hinterland of the respective five towns. A distance-wise classification of the selected villages has been given in Appendix II. A sample of one thousand five hundred fifty nine (1559) households of these sample villages have been interviewed, which form the smallest unit of the present study. The method of sampling of households has been explained in the 'Methodology' section of 'Introduction'. Table 2.4 shows the classification of the sample villages and the sample households.

Considering the physiographic character, all the villages are topographically homogeneous in character, exhibiting flat lands in the plains of North Bengal. Agriculture, being the major economic backbone of these rural hinterlands, covers the major portion of the land area of these settlements. But, agriculture in most of these areas suffers from the lack of irrigation facilities as the proportion of irrigated land is small in general. This problem is very acute for the villages in the surroundings of Dinhata and Koch Bihar. However, the villages around Tufanganj are comparatively more irrigated than the other zones.

Table 2.4 Surveyed Villages and Surveyed Households: A Distance-based classification

District	Hinterland of Urban centres	Distance-zone	Surveyed villages	Total no. of Villages surveyed	Number of households sampled	Total Number of sampled households	
KOCH BIHAR	Koch Bihar	0--5	2		151		
		5---10	3		105		
		10--15	3		170		
		15--20	3		64		
		20--25	3		34		
				14		524	
	Dinhata	0--5	1		60		
		5---10	3		33		
		10--15	2		73		
		15--20	1		10		
		20--25	2		36		
					9		212
	Tufanganj	0--5	1		60		
		5---10	1		60		
		10--15	1		102		
		15--20	1		34		
		20--25	1		69		
					5		325
	JALPAIGURI	Jalpaiguri	0--5	1		111	
			5---10	1		43	
10--15			2		48		
15--20			2		64		
20--25			2		80		
				8		346	
Alipurduar		0--5	2		84		
		5---10	1		27		
		10--15	1		13		
		15--20	1		15		
		20--25	1		13		
					6		152
				42		1559	

Thus, the rural settlements with uniform physical but of different socio-demographic attributes have been taken into consideration to highlight the urban-rural interaction and associated rural development, where physiographic impact has no part to play.

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