CHAPTER-II

Geographical Profile of the Study Area

2.1 Introduction

Jalpaiguri district has been named after its principal town Jalpaiguri, which is the divisional and the district headquarter town. The nomenclature of the district has its origins from the words 'Jalpai' which means olive in Bengali and the suffix 'Guri' meaning place, as the place previously had plenty olive trees. Another version states that the name is associated with 'Jalpes', the presiding deity "Shiva" of the entire region who had been the diety for worship since time immemorial. *Situated on the lower Himalayas, Jalpaiguri a unique district owing to its geographical diversity, traditional history, colourful ethnic groups, miscellaneous linguistic and religious groups and beautiful sceneries* (Census, 1991).

The Jalpaiguri sub-division of Rangpur, had been named since 1854, was adjacent to the earlier Sukhani sub-division and it was the core of the district formed in 1869. The local name of Jalpaiguri, which was the seat of a military cantonment, gave its name first to the sub-division and then to the district. Earlier in March 1849, Hooker had come at Jeelpigoree, which was then a large struggling village near the banks of the Tista, the southern part of the forest. According to Hooker, they were detained for several days, waiting for the elephants to proceed northwards which prove that Jeelpigoree was then a point of transshipment within an area covered by forests (Census, 1961, Gruning, J.F.1911).

The study area, Jalpaiguri district extends between 26°15'47" to 26°59'34" N latitude and 88°23'2" to 89°73'0" E longitude comprising an area of 3044.00 km^2. Jalpaiguri district is situated in the northern part of West Bengal and is bordered by Bhutan in the north, Darjeeling district in the west and north-west, Koch Bihar and Bangladesh in the south and Alipurduar district in the east (Fig. 2.1).

The district is divided into 2 sub-divisions, 7 Community Development Blocks, 80 Gram Panchayats, 391 Inhabited Villages, 9 Police Stations, 7 Panchayat Samity, 1,177 Gram Sansad and 418 Mouzas and the total population of the district is 2,381,596 (Census, 2011).

STUDY AREA

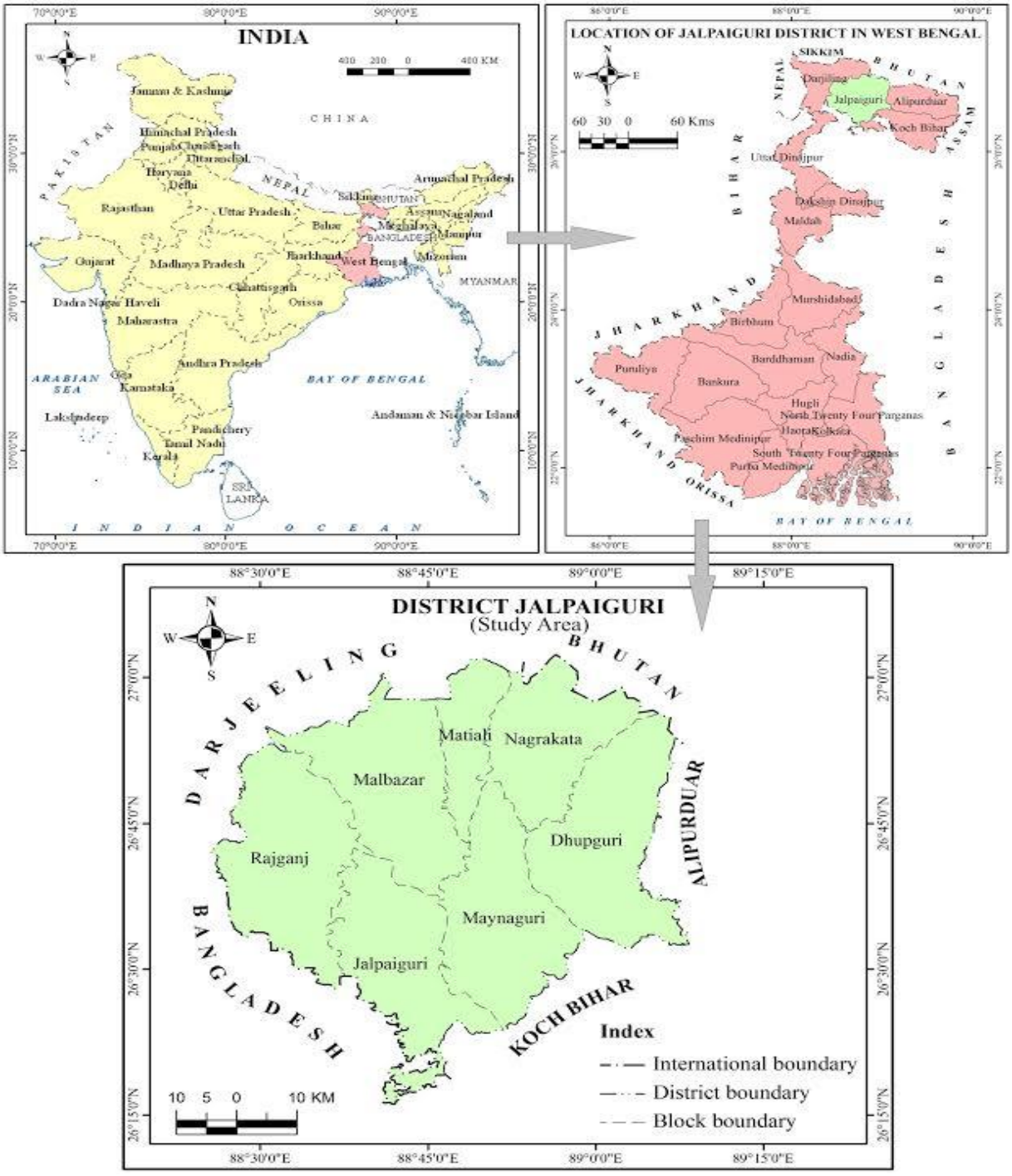

Fig. 2.1: Study Area

2.2 Physical Set Up of the District

Fundamentally, physical conditions are the prerequisite for the creation of a number of valuable resources. The essential physical conditions which make a direct or indirect contribution towards the genesis of natural resources are the geological structure, topography, drainage patterns, climate, soil and natural vegetation.

2.2.1 Topography

Jalpaiguri district is bordered by the Himalayan hill ranges in the north and the piedmont plains in the south, which gently grade into the alluvial plains further to the south. '*The piedmont or Sub-Himalayan zone is locally known as Duars. It covers the tilted plains at the base of the Himalayas bounded by the 300 meter contour line to the north and 66 meter to the south. It includes the entire northern half of Jalpaiguri district. This is formed due to the coalescing of several alluvial fans within the catchment area of major rivers like Tista, Jaldhaka, Kaljani and Raidak*' (Sarkar, 1990). The fluvial activity of the rivers and streams has given birth to terraces over the undulating surface of ancient drift deposits and forms landscape which then connects to the plains of the south (Fig. 2.2). It is the rill and gully erosion over an extended period of time, which has created an undulating surface in the ancient drift deposits. '*The plains of Jalpaiguri district is characterized by a 66 meter contour'* (Roy, 2011) covering the northern and southern part of the district along with a gentle slope of the land.

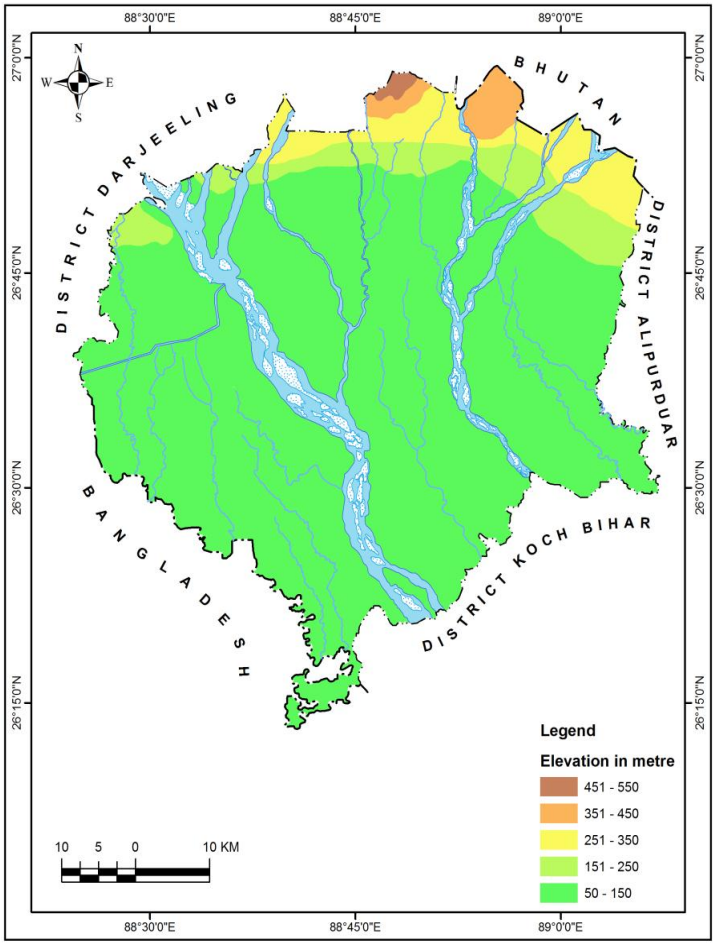

Fig. 2.2: Topographical Map of Jalpaiguri district

Source: NATMO, 2011

2.2.2 Geology

Geologically the district is dominated by schist, gneiss, phyllites, quartzite, dolomites, and coal. The northern part of the district experienced an extensive growth of alluvial fans. Black clay exists between the area of Tista and Jaldhaka rivers. The upper part of Jalpaiguri district comprises of thick boulders and conglomerates whereas in the lower part of the district there is a formation of terraces created by the fluvial activity of the rivers (Fig. 2.3). '*With the exception of the hilly northern fringe, the whole of the district is covered by alluvial deposits. The alluvium consists of coarse gravels near the hills, and the presence of sandy clay and sandy loam further south* (Census, 1961). The tectonic activity is the most crucial factor in developing the elevations and depressions and has an important effect on erosion and depositional aspect and the drainage networks of Jalpaiguri district.

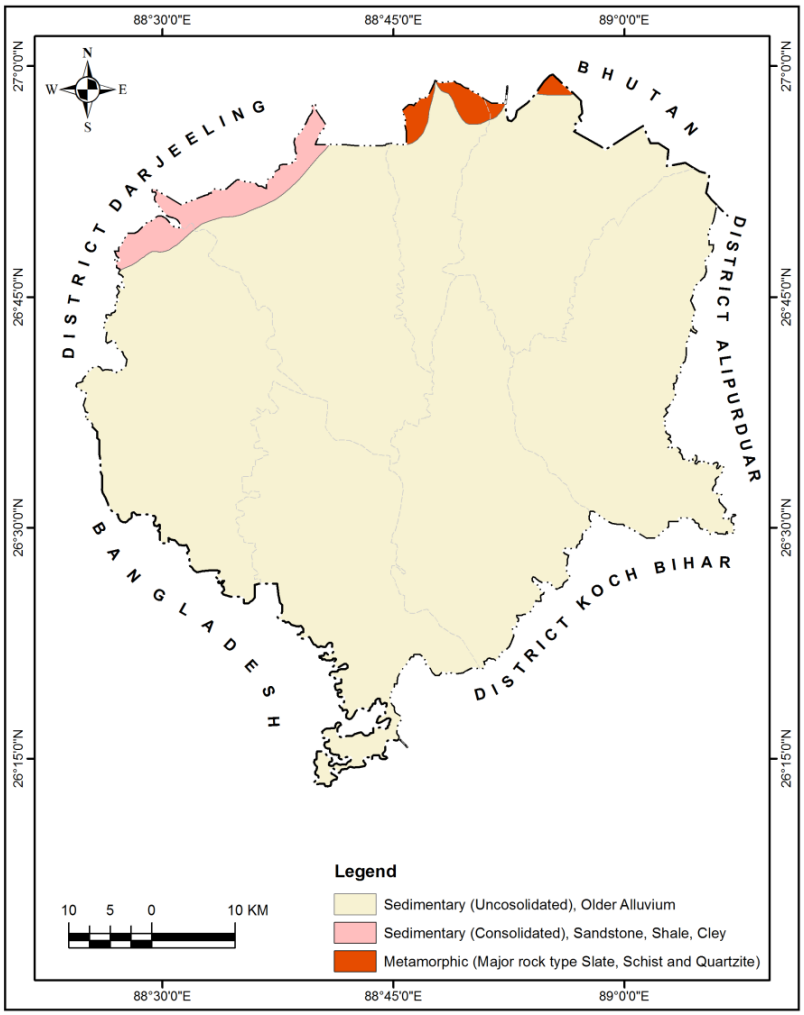

Fig. 2.3: Geological Map of Jalpaiguri district

Source: NATMO, 2011

2.2.3 Soil

Soil is a great natural resource which by means of climatic factors creates the base of the agricultural resources. The specific feature of the soil of Jalpaiguri district is its coarse texture, low water retaining capacity along with weak content of organic matter. According to the National Bureau of Soil Survey and Land Use Planning Regional Centre, Kolkata, the soils of Jalpaiguri district are coarse loamy to fine loamy type of soils (Fig. 2.4). The soils of the northern part of Jalpaiguri district are acidic in reaction with lesser amount of organic carbon whereas the soil pH increases southwards with its finest texture. '*The soils of river adjacent area have pH value between 5.0 to 6.5, medium quality of phosphate, higher quality in case of nitrogen and medium quality of organic carbon 0.5% to 0.75%*' (Biswas, 2013).

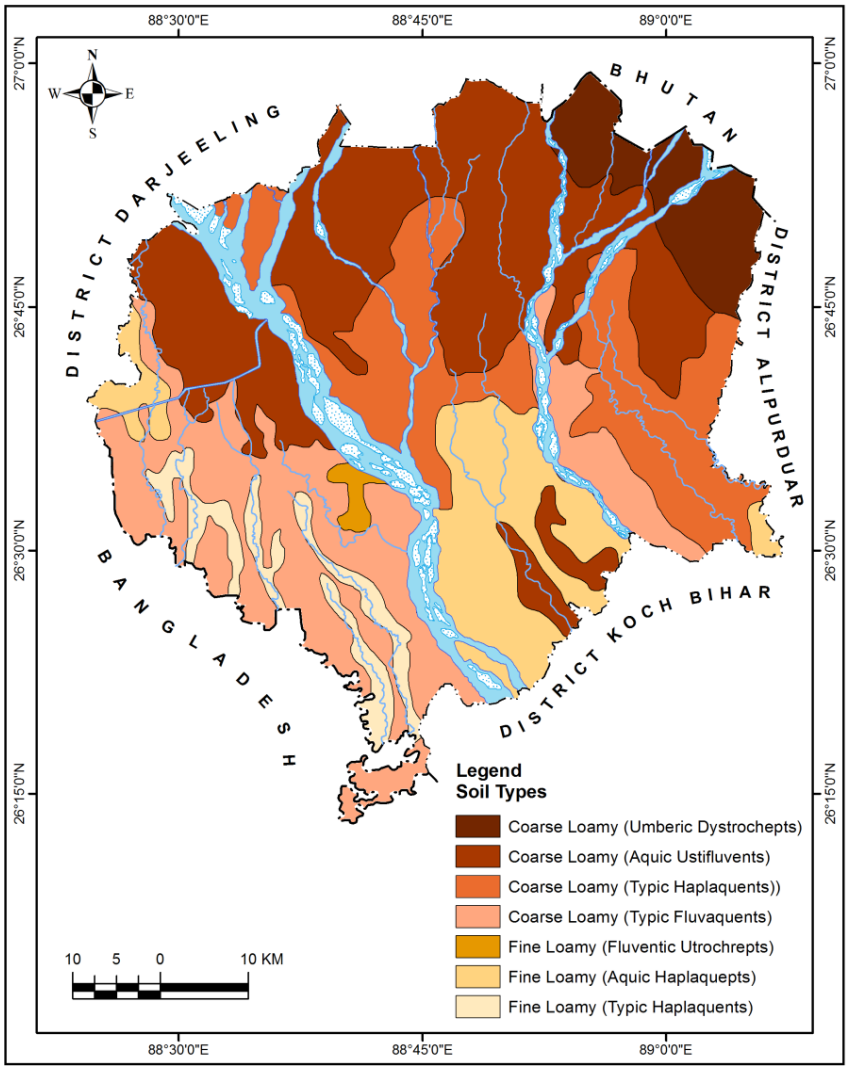

Fig. 2.4: Soil Map of Jalpaiguri district

Source: NATMO, 2011

2.2.4 Drainage

Majority of the rivers flowing in Jalpaiguri district originates in the northern hills and the rivers flows from the north towards the south and south-easterly direction among which Tista, Jaldhaka, Karotoya, Diana, Murti and Neora are noteworthy (Fig. 2.5). Jalpaiguri district is the interfluves of rivers and rivulets. Because of foothills rivers that flow from the hilly courses abruptly reaches the plain. The rivers after reaching the plains are braided and therefore the rivers are incapable of transporting their bed load. Hence, the river beds are raised resulting into floods during heavy monsoon rains in few parts of the plains. However, changing of the river courses and shifting of river are the common features in this region. Flooding, bank erosion is the problems which sometimes cause damage to agriculture, forest, tea garden and settlement.

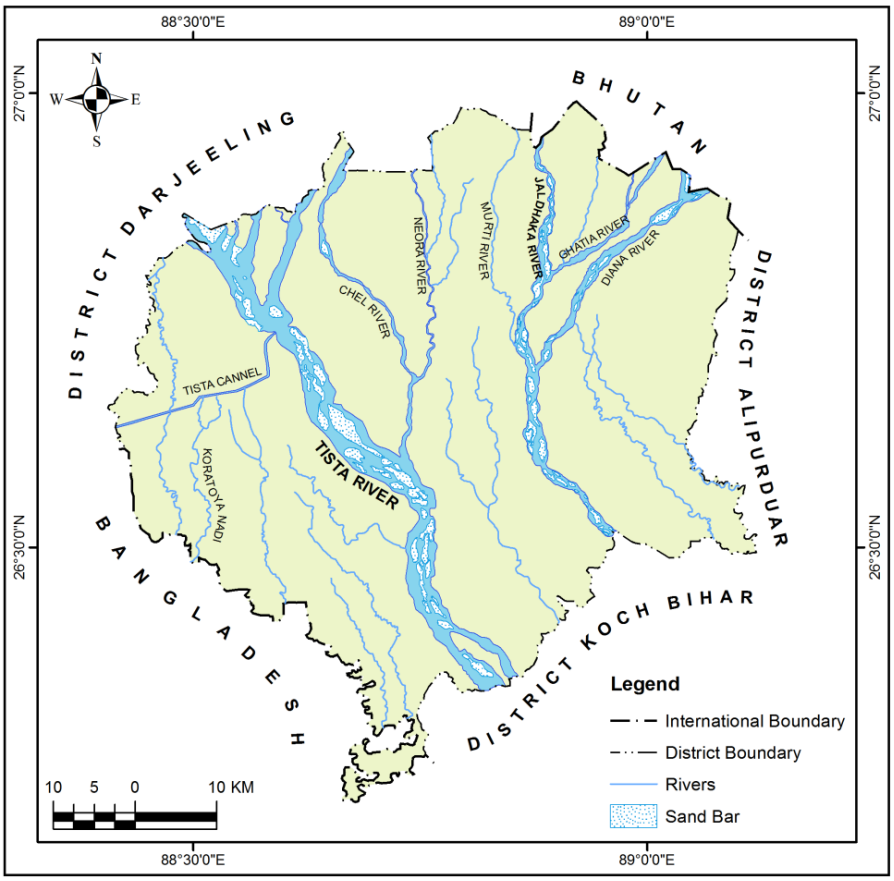

Fig. 2.5: Drainage Map of Jalpaiguri district

Source: NATMO, 2011

2.2.5 Natural Vegetation

Natural vegetation provides us a wide variety of valuable products. '*In fact the impact of forests and their importance can hardly be exaggerated. It provides us timbers, fuel wood, food and fodder, source of raw materials for forest based industries and source of medicinal*

plants' (Rakshit, 2003). The forest cover of Jalpaiguri district consists of semi-moist-deciduous vegetation (Fig. 2.6). The common species is Sal (*Shorea robusta*) in this region. But Sal is found with varying amount of other species like *Langerstroemia parviflora, Terminilia crenutata, Amoora rohituka, Dalbargia sisoo* etc. *The quality of Sal forest in this district is better than any part of India* (Census, 1961).

Broadly the forests may be classified into the following types:

i. Riverine forests,

ii. Plain forests and

iii. Savannah forests.

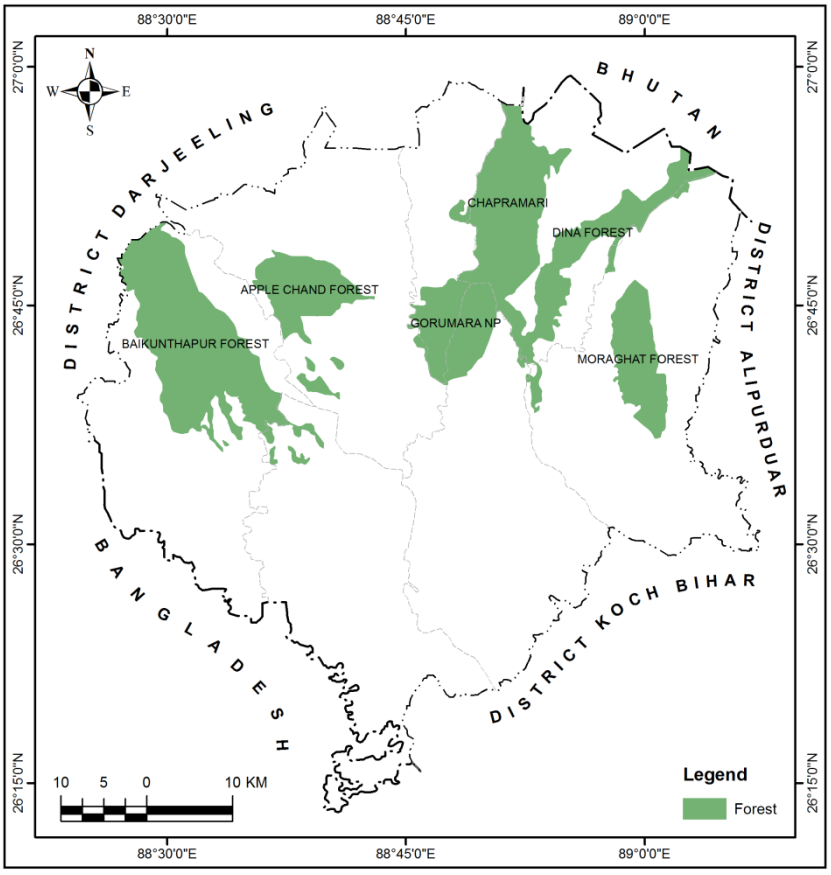

Fig. 2.6: Natural Vegetation Map of Jalpaiguri District

Source: NATMO, 2011

Riverine forests are deciduous forests and the major species are Khair and Sisoo of this region. These are found near the river beds on newly deposited sand and silt. At some places, Odal and Sidha are also found in large proportion.

The forests in the plains have specific types and can be primarily classified as mature sal, scattered sal, wet mixed and dry mixed sal (Census, 1961).

Savannah forests are found where a large amount of sand is present, and the common trees are Kumbhi, Amla, Sidha etc. The forests of Jalpaiguri district are significant for providing shelter and protection to the several species of wildlife.

2.2.6 Climate

The climate of Jalpaiguri district is sultry heat with high humidity and heavy precipitation (Chakraborty, 2007). It falls in the monsoon climatic zone and the effects of the south western monsoon against the Himalayan barrier allow the rain bearing winds to affect the temperature and rainfall of the district. The seasons are divided into cold, rainy and two relatively short periods of seasons i.e. spring and autumn is also noticed in Jalpaiguri district. '*However, the rainfall is heavy and the temperature is rarely excessive*' (Gruning, 1911). *Except in the northern part of the district, the ground water table is fairly near to the surface staying within a depth of 2 to 10 meter during summer*' (Roy, 2011). Sometimes heavy monsoon rainfall in the catchments causes destructive floods in the district. Summers are hot and humid where May, June, July and August are generally the hottest months and December and January are the coldest months where there is a pronounced dryness in winter.

Temperature

Monthly average temperature records for the year 2016 reveals that April and August are generally the hottest months and December and January are the coldest months (Table 2.1 and Fig. 2.7). The maximum temperature recorded in the district is 32.6°C in the summer month and there is a marked decrease of temperature in the coldest month where the minimum temperature is recorded to be 10°C. Maximum and minimum temperature (in $^{\circ}$C) for the successive years (2009-2016) is depicted in Table 2.2.

Humidity

The monthly average maximum and minimum humidity of Jalpaiguri district, 2016 has been presented in Table 2.1, where the highest percentage of humidity has been observed in the month of July (98) and the minimum percentage of humidity has been obtained in the month of March (47).

Table 2.1: Maximum and Minimum Temperature and Humidity of Jalpaiguri district, 2016

Month	Temperature		Humidity	
	Maximum in °C	Minimum in °C	Maximum (%)	Minimum (%)
Jan	22.5	10.0	92	57
Feb	25.9	13.5	88	53
Mar	30.0	15.8	84	47
Apr	31.6	18.5	85	57
May	31.3	19.9	92	65
Jun	31.5	21.7	95	76
Jul	29.8	22.4	98	84
Aug	32.6	23.8	94	75
Sep	30.7	22.7	96	78
Oct	31.3	19.9	91	65
Nov	29.9	15.0	88	50
Dec	26.8	11.8	91	49

Source: Meteorological Department, Govt. of West Bengal

Table 2.2: Maximum and Minimum Temperature (in °C)

YEAR	TEMPERATURE (°C)	
	Maximum	Minimum
2009	37	9
2010	36	7
2011	37	7
2012	37	8
2013	38	8
2014	36	9
2015	33	10
2016	33	10

Source: Meteorological Department, Govt. of West Bengal

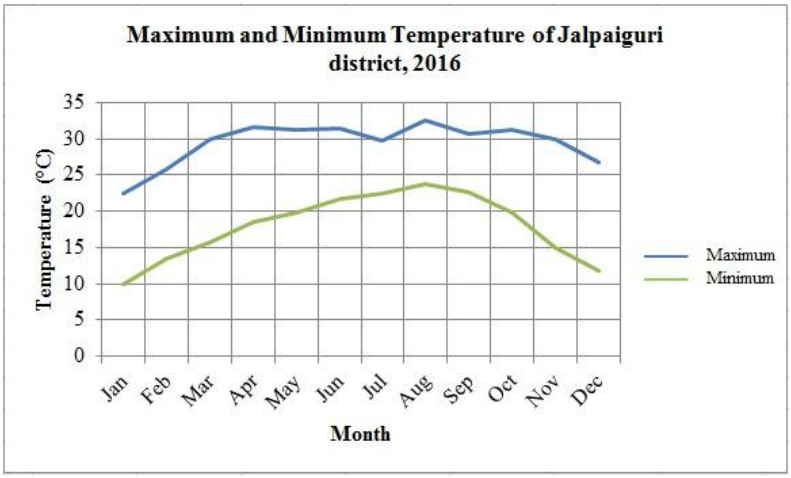

Fig. 2.7: Maximum and Minimum Temperature of Jalpaiguri district, 2016

Source: Meteorological Department, Govt. of West Bengal

Rainfall

Jalpaiguri district exhibits a great variety in its rainfall distribution. In this region the maximum concentration of rainfall occurs in the month of June, July, August and September. The mean annual rainfall ranges between 3000-4000 mm (IMD, 2011). The rainy season begins from early May and continues till October. Table 2.3 reveals that July has been recorded to be the month of highest rainfall with 1313.7 mm and December is the driest month with no rainfall (Fig. 2.8). The reason behind uneven distribution of rainfall is the variations in the topographic structure of the region. Rainfall is concentrated in four summer months and a distinct lack of rainfall has been observed in the month of November and December. Occasional heavy rainfall sometimes causes devastating floods with fissures in the river embankments due to sudden rise in the water levels. '*After the devastating floods of 1954, 1959 and 1968, the issue of effective flood management in Jalpaiguri district received attention* (Roy, 2011). The rainfall (in mm) of Jalpaiguri district for the successive years, from 2009 to 2016 has been depicted in Table 2.4.

Table 2.3: Monthly rainfall in Jalpaiguri district, 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall in mm	6.9	4.6	8.5	112.5	266.0	950.3	1313.7	224.5	699.9	249.4	0.0	0.0

Source: Meteorological Department, Govt. of West Bengal

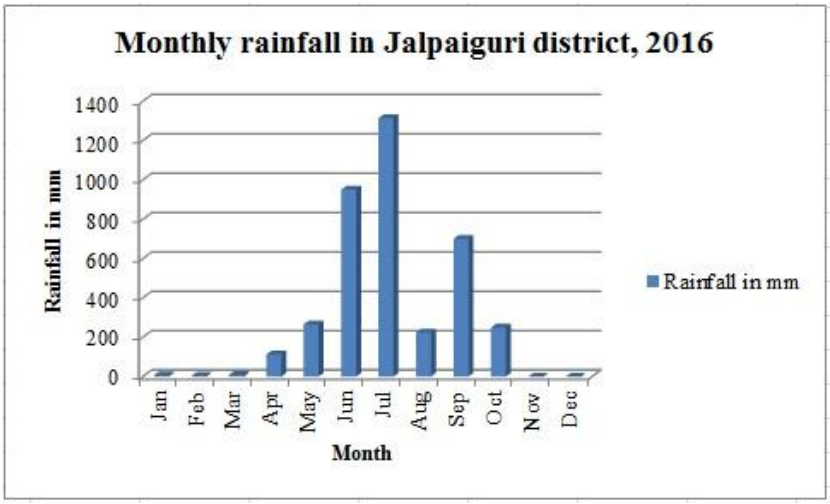

Fig. 2.8: Monthly rainfall in Jalpaiguri district, 2016

Source: Meteorological Department, Govt. of West Bengal, 2016

Table 2.4: Rainfall (in mm) for the successive years is shown below:

Year	Rainfall in mm
2009	3155
2010	3882
2011	3146
2012	3787
2013	3305
2014	3088
2015	3651
2016	3836

Source: Meteorological Department, Govt. of West Bengal

2.3 Cultural Set Up of the District

The analysis of the cultural set up of the district is significant because it provides the primary base for the study of spatial organization of the social and economic facilities being provided to the people of an area.

2.3.1 Distribution of Population

It is the varying physical, social, economic, infrastructural and historical factors which have a major influence upon the distribution of population in an area. Therefore, '*spatial distributions cannot be explained by reference to a given moment in time; they are constantly changing in response to changing human influence and values*' (Clarke 1973). Moreover, the migration of population has a direct affect upon the distributional changes of population over an area.

Table 2.5: Distribution of Total rural Population in Jalpaiguri district, 2001 & 2011

C.D. Blocks	2001	Population %	2011	Population %
Rajganj	283967	24.13	190645	16.97
Jalpaiguri	280927	23.88	261784	23.30
Maynaguri	254594	21.64	291073	25.90
Dhupguri	357134	30.35	380090	33.83
Total for Sadar sub-division	**1176622**	**100**	**1123592**	**100**
Mal	265392	54.47	275384	54.51
Matiali	105906	21.73	102418	20.27
Nagrakata	115907	23.80	127397	25.22
Total for Mal sub-division	**487205**	**100**	**505199**	**100**

Source- Census of India, 2001, 2011

Table 2.5 reveals the trend of the distribution of rural population in Jalpaiguri district. It has been observed that the rural population of Sadar sub-division consisting of the C.D. blocks of Rajganj, Jalpaiguri, Maynaguri and Dhupguri have slightly decreased from

11,76,622 in 2001 to 11,23,592 in 2011, whereas in Mal sub-division consisting of the C.D. blocks of Mal, Matiali and Nagrakata, the data reveals that the rural population have increased from 4,87,205 in 2001 to 5,09,199 in 2011. The total population of the district according to Census 2001 was 2,063,598 whereas the total population has risen to 2,381,596 in 2011 (Census, 2011).

Table 2.6: Distribution of Rural Male and Female Population of Jalpaiguri district

C.D. Blocks	Rural Population			
	Male		Female	
	2001	2011	2001	2011
Rajganj	147467	99129	136500	91516
Jalpaiguri	145272	134526	135655	127258
Maynaguri	131720	150757	122874	140316
Dhupguri	185929	193071	171205	187019
Mal	135344	139602	130048	135782
Matiali	53472	52476	52434	49942
Nagrakata	58790	64133	57117	63264

Source- Census of India, 2001, 2011

The distribution of rural male and female population for the district has been depicted in Table 2.6, according to 2001 and 2011 Census in order to understand the degree of differential distribution of rural population in Jalpaiguri district. The rural population of the district in Census 2001 was 16,63,827 whereas the rural population has decreased to 16,28,791 in 2011 due to the growth of census towns. However, the percentage of rural population in Jalpaiguri district is 68.39%, compared to the corresponding figure for West Bengal at 68.13% (Census, 2011).

2.3.2 The Economy

The economy of Jalpaiguri district is primarily agriculture based and it is the mainstay of the rural people. On the other side, the tea industry forms the core of Jalpaiguri's economy. The tea industry with tea processing, tea packaging provides a large scale employment and promotes the economy of the region by absorbing a large amount of labourers. Besides tea, small scale rice mills, oil mills and saw mills has been observed in the district. Apart from the presence of agriculture and tea industries, small scale industries and cottage industries in Jalpaiguri district includes the manufacturing of bamboo works, cotton and mat weaving products, pottery products, candle making etc. Furthermore, the cultivation of rice, jute, tobacco, mustard, are also extensively promoted in the district.

Table 2.7 depicts the area covered by the major crops of the district in thousand hectares and the production of the crops in thousand tons in Jalpaiguri district, 2011-12.

Table 2.7: Area and Production of major crops of Jalpaiguri District, 20011-12

Crops	Area*	Production**
Rice	224.6	469.7
Jute	35.7	467.2
Tea	77.3	151.7
Tobacco	0.5	0.8
Mustard	10.0	6.5
Pineapple	1.71	58.38
Banana	2.43	56.00

Source- Census of India, 2011
*In thousand hectares
** In thousand tons

Since, Jute is the principal cash crop of the district therefore the production of jute is obtained with 467.2 thousand tons. Moreover, Jalpaiguri district is well-known for the production of orchard fruits especially pineapple and banana which make a vital contribution to the district's economy.

2.3.3 Agriculture

Agricultural development plays an essential role in rural development. The sustainable development of agriculture is indispensible in the rural agrarian landscape of Jalpaiguri district. Agriculture is an important source of livelihood in the region where rice is the dominant food crop of the district. It is necessary for the large scale rural population as well as for the growth of national economy. The area is formed of alluvium and the silt carried by the rivers like Tista, Jaldhaka, Karotoya and Murti facilitates the development of agriculture in the district. The other major crops of the district consist of wheat, maize, jute and potato.

Table 2.8: Yield rates of major crops in Jalpaiguri district

Crops	2014-15	2015-16
Aus	3092	3156
Aman	3891	3959
Boro	5031	5393
Wheat	3451	3463
Maize	2934	3322
Potato	28209	30622
Jute	11.01	11.77
Tobacco	1645	1742

Source- Deputy Director of Agriculture, Jalpaiguri, Govt. of West Bengal

In Jalpaiguri district, the number of persons engaged in agricultural activities are generally dominated by the small farmers and the marginal farmers where the highest number small farmers has been observed in Dhupguri block with 9,605 persons followed by Maynaguri

block and in case of marginal farmers, 27,781 persons are engaged in Maynaguri block followed by Dhupguri block, (Census, 2011).

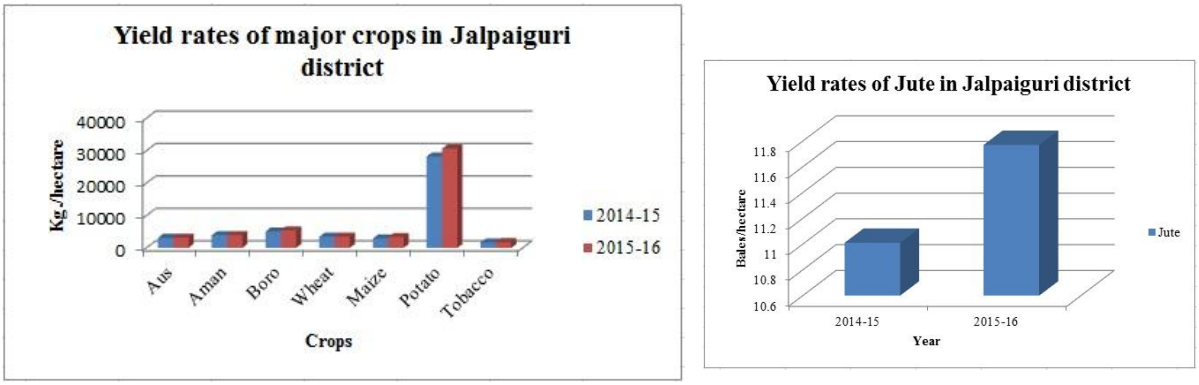

Fig. 2.9: Yield rates of major crops in Jalpaiguri district

Source- Deputy Director of Agriculture, Jalpaiguri, Govt. of West Bengal, 2014-16

Since agriculture and allied sectors is one of the major economic activities of the district, the yield rates of major crops for the successive years in (kilogram per hectare) and in (bales per hectare) has been depicted in Table 2.8. The trend reveals that the yield rates of paddy crops (Aus, Aman, Boro), wheat, maize, potato, jute and tobacco have increased from the year 2014-15 to 2015-16 (Fig. 2.9).

2.3.4 Work Force

The percentage of workers in total population is used as a vital indicator of the economic structure and dependency ratio of an area. The block wise percentage distribution of workers in different categories to respective total workers in Jalpaiguri district, 2011, has been depicted in Table 2.9, (Fig. 2.10). To assess the occupational structure of the study area the main workers are divided into four occupational categories:

(A) Agricultural labourers,

(B) Cultivators,

(C) Household industry workers and

(D) Other Workers.

Cultivators: According to Census 2011, 16.37% cultivators have been found in Jalpaiguri district. The highest percentage of cultivators is in Maynaguri block with 28.89% followed by Jalpaiguri block. It is Matiali block where the percentage of cultivators is lowest with 4.77% and this decrease is associated with the shift in the workforce away from agricultural operations towards the non-farm operations. The workers are engaged in the tea garden activities as the block is endowed with a number of tea factories.

Table 2.9: Percentage Distribution of Workers in Jalpaiguri district, 2011

C.D. Blocks	Cultivators	Agricultural Laborers	Household Industry Workers	Other Workers
Rajganj	10.56	15.08	3.31	71.05
Jalpaiguri	20.42	34.11	1.04	44.43
Maynaguri	28.89	35.12	1.72	33.27
Dhupguri	16.90	33.18	1.41	48.51
Mal	12.09	20.88	1.70	65.33
Matiali	4.77	10.76	1.43	83.04
Nagrakata	8.50	13.99	1.68	75.82

Source- Census of India, 2011

Agricultural Labourers: The percentage of agricultural labourers to its total workers is 25.94% in Jalpaiguri district. The highest percentage of agricultural labourers is in Maynaguri block with 35.12% followed by Jalpaiguri and Dhupguri block due to the high intensity of farming activities in these areas, whereas the lowest percentage of agricultural labourers is in Matiali block at 10.76%.

Household Industry Workers: The percentage of household industry workers is 1.80% in Jalpaiguri district. The work force involved in household industry is quite low as compared to the percentage of cultivators and agricultural labourers, because of the greater participation of people in the agricultural sector and the tea industries in the study area. However, the highest percentage of household industry workers is in Rajganj block with 3.31% followed by Maynaguri block and the lowest percentage of the workers is in Jalpaiguri block at 1.04% followed by Matiali block.

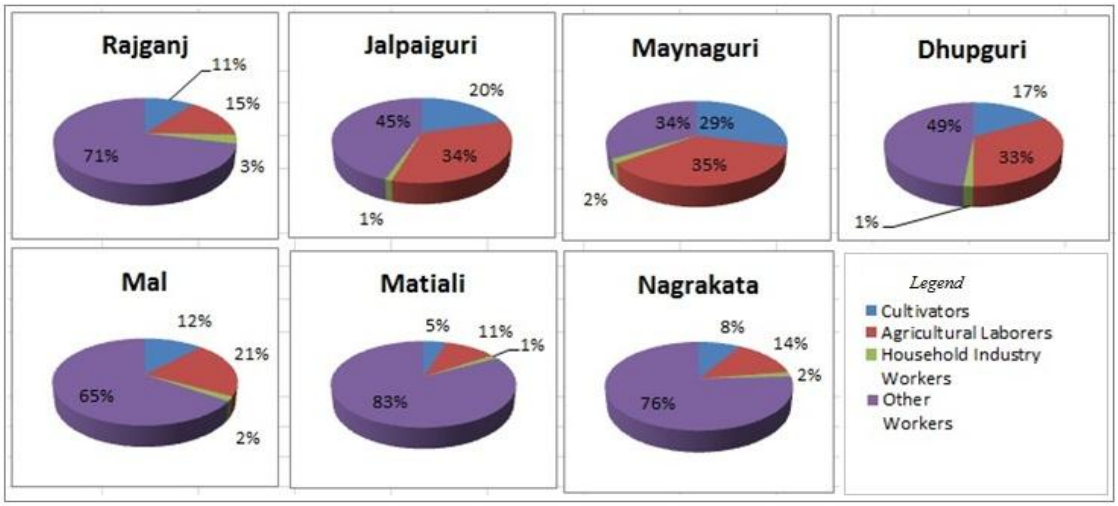

Fig. 2.10: Percentage Distribution of Workers in Jalpaiguri district, 2011

Source- Census of India, 2011

Other Workers: The other workers constitute 55.89% of workforce in Jalpaiguri district. The highest percentage of other workers has been observed in Matiali block with 83.04% followed by Nagrakata block and lowest percentage of the other workers is in Maynaguri block with 33.27% followed by Jalpaiguri block. The reasons behind the increase of other workers are the decrease of traditional agricultural activities in the study area with a sharp increase in non-farm activities.

2.3.5 Literacy

Literacy is one of the social indicators for human development. Higher literacy rate is fundamental because it brings socio-cultural and economic development of an area. However, literacy plays an important role in affecting the quality of human resources as it helps in conveying proper notions and thoughts across time and place.

Table 2.10 depicts that the total literacy rate for Sadar and Mal sub-division has increased by 10.37% during 2001-2011. Male literacy rate has increased by 6.66% and similarly the female literacy rate has increased by 14.71% over the period 2001-2011(Fig. 2.11). The increase in literacy rate is the consequence of increase in the numbers of educational institutions in the study area. The literacy rate in 2001 varied between a minimum of 48.50% in Nagrakata block to a maximum of 66.20% in the Maynaguri block. The minimum percentage for the males has been observed with 60.20% and for the females the minimum percentage has been obtained at 36.40% in Nagrakata block, whereas, the maximum percentage of literacy rate has been found with 76.70% for the males and 54.90% for the females in Maynaguri block.

Table 2.10: Effective Literacy rate of Male and Female in Jalpaiguri district

Blocks	**Total Literacy Rate**		**Male Literacy Rate**		**Female Literacy Rate**	
	2001	2011	2001	2011	2001	2011
Sadar sub-division						
Rajganj	59.10	72.08	70.50	78.52	46.50	65.18
Jalpaiguri	65.30	73.81	75.80	80.52	54.00	66.73
Maynaguri	66.20	75.63	76.70	81.98	54.90	68.84
Dhupguri	62.20	69.57	73.50	77.56	49.60	61.36
Mal sub-division						
Mal	53.50	66.31	64.80	74.23	41.80	58.17
Matiali	54.40	66.98	67.10	76.76	41.60	56.71
Nagrakata	48.50	61.27	60.20	70.51	36.40	51.93
Total	**60.18**	**70.55**	**71.27**	**77.93**	**48.12**	**62.83**

Source: Census of India, 2001, 2011

However for the promotion of literacy in Jalpaiguri district, the efforts of Sarba Siksha Abhiyan, National Adult Education Programme and Total Literacy Campaign of the National Literacy Mission leads to the improvement in literacy rate over the period of time.

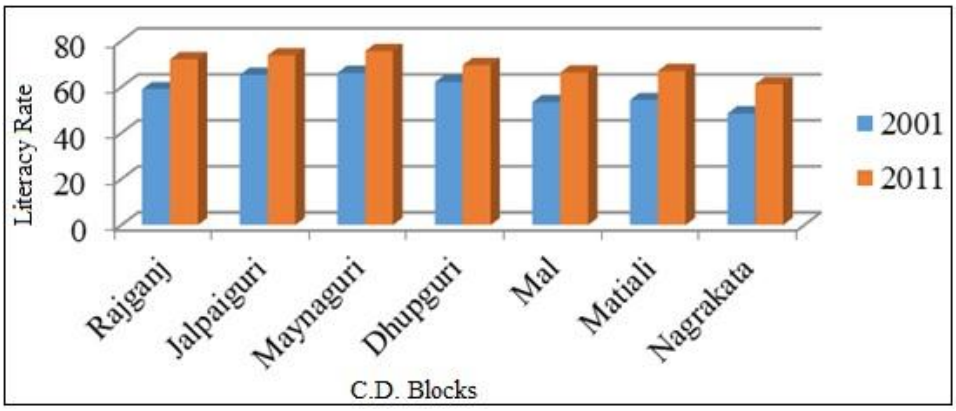

Fig. 2.11: Total Literacy rate

Source: Census of India, 2001, 2011

In 2011, the block that recorded the least percentage of total literacy rates is Nagrakata block with 61.27%, whereas Maynaguri block recorded the highest percentage of total literacy rate with 75.63%. The maximum absolute change in total literacy rate during the period 2001-2011 has been observed in Rajganj block with 12.98%, due to the presence of better transport network and higher number of educational institutions. Among the females the maximum difference has been obtained in Rajganj block with 18.68% whereas in case of males it has been observed in Nagrakata block with 10.31%, which indicates the existence of a sharp variation in the percentage of male and female literacy rate in Sadar and Mal sub-division of Jalpaiguri district.

2.3.6 Transport

Transport is an indispensible infrastructure for the rapid development of any region. Efficient transportation network acts as a catalyst in achieving social and economic development in the rural areas. Jalpaiguri district is located in the North-East Frontier Railway zone of the Indian Railways. The railway station that connects the district with the rest of the districts and states are the Jalpaiguri Road and Jalpaiguri Town Station. The national highway that passes through Mal, Matiali, Maynaguri and Rajganj blocks of the district is NH-31. NH-31c passes through Dhupguri and Nagrakata blocks and SH-12-A passes through Jalpaiguri Sadar block of Jalpaiguri district. Road length is one of the significant criterion to determine the accessibility of any region and the different agencies that maintain the length of the roads in the blocks of the district are P.W.D, Zilla Parishad, Gram Panchayat and Panchayat Samiti and Pradhan Mantra Gram Sadak Yojana (PMGSY).

524.04 km surfaced roads are maintained by the state Public Works Department (P.W.D), 811.17 km surfaced roads are maintained by the Zilla Parishad and 389.94 km surfaced roads are maintained by the Pradhan Mantra Gram Sadak Yojana (PMGSY), (Census, 2011).

2.4 Conclusion

It has been concluded that Jalpaiguri district is bordered by the hill ranges in the north and piedmont plains in the south and geologically it is dominated by schist, gneiss, quartzite, dolomites, coal and enormous alluvial deposits. The soil of this region varies from coarse loamy to fine loamy type. The inhabitants of this district are highly influenced by the rivers of this area, forest products of this district and the tea gardens. The major rivers like Tista, Jaldhaka, Karatoya, Murti, Diana sometimes causes damage to agriculture, forest, tea garden and settlement through flooding and bank erosion. The climate of this region is diversified in its rainfall and temperature pattern.

Temperature ranges from 33°C in the summer month to a marked decrease of temperature in the coldest month where the temperature is recorded to be 10°C. The mean annual rainfall for the district fluctuates between 3000-4000 mm. Jalpaiguri district consists of semi-moist-deciduous vegetation where sal is the most common species of this region. It is predominantly a rural region and the economy is predominantly agriculture based where 26% of the total workers are agricultural labourers. Besides agriculture, tea industry on the other hand is another source of livelihood in the region. Road transport is one of the key indicators of development of any region and Jalpaiguri district is no exception where the main mode of transport is the national highway NH-31 which passes through the district.

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