

Chapter-5

West Bengal and Bihar: Research Setting

5.1. Research Setting

To know and understand the data and draw the interpretations more accurately, a fair understanding of the characteristics of the area and attitude of people is very necessary for the interpreter who intend to unveil an understanding of the implications and behavioral complexes of person who live in the area under references and form a representative part of the larger community. The socioeconomic background of the respondents is also necessary to understand their behavioral complex.

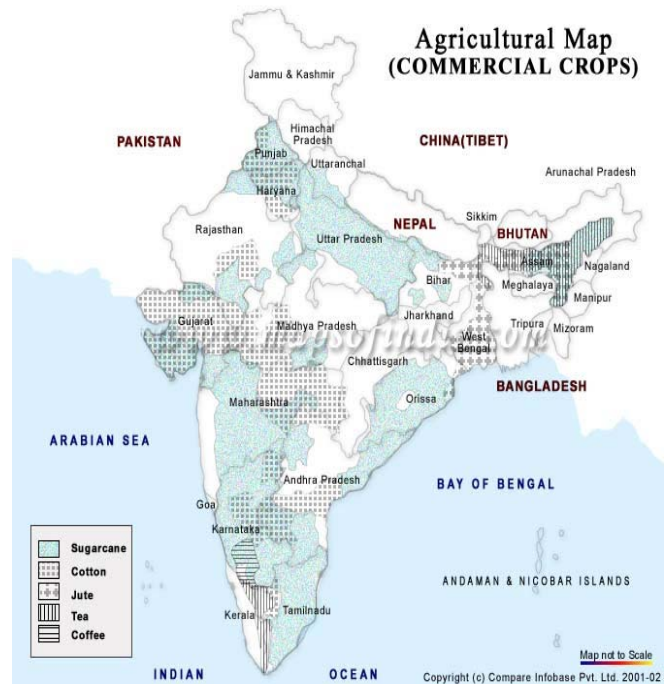
5.2 Area of Study



Map 5.1: Political map of India.

India is a country in south Asia that lies entirely on the Indian Plate in the Northern portion of Indo-Australian plate. The country lies to the north of equator between 8°4' and 37°6' North latitude and 68°7' and 97°25' east longitude. It is the seventh largest country in the world with a total land area 3287263 square kilometer. India measures 3214 kilometer from north to south and 2993 kilometer from east to west. It

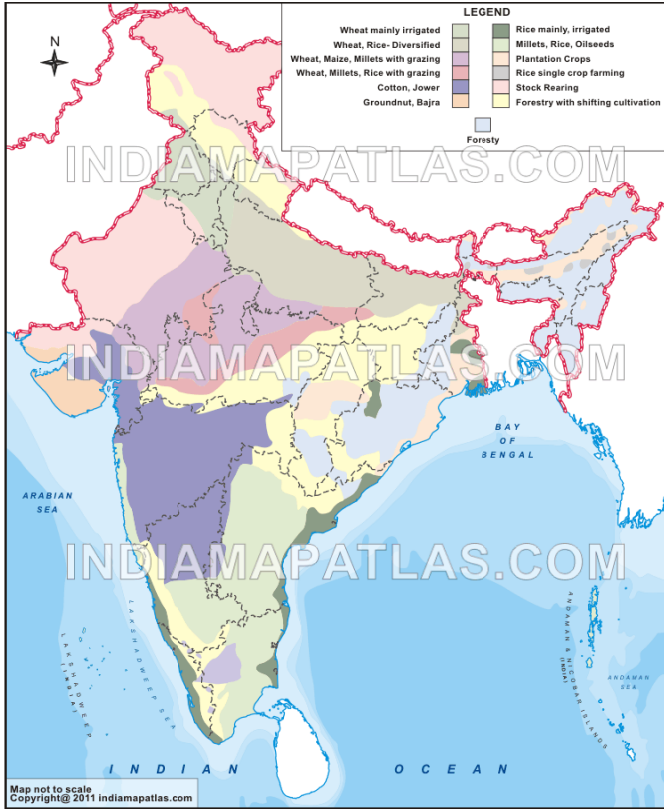
has a land frontier of 15200 Kilometer and a coastline of 7517 kilometer. For the present study, two states namely West Bengal and Bihar has been taken purposively.



Map 5.2: Agricultural Map of India (A)

West Bengal is on eastern bottleneck of India stretching from the Himalayas in the north to the Bay of Bengal in south. It lies between 85°50' and 89°50' east longitude and 21°38' and 27°10' north latitude. The state has a total area of 88752 square kilometers. Bangladesh which lies on its eastern border, the state forms the ethno-linguistic region of Bengal. To its northeast lies the state of Assam and Sikkim and the country Bhutan and to its southwest the state of Orissa. To the west it borders the state of Jharkhand and Bihar and to the northwest, Nepal. The capital of the state is Kolkata the third largest agglomeration and third largest city in India.

The state has a total geographical area of 8.85 million hectares representing only 2.7 per cent of the total area in India. It is territorially divided into 19 districts. It has a total of 41,112 villages and 291 towns (1991 census). Majority of its people (73.5 per cent) live in rural areas.



Map 5.3: Agricultural Map of India (B)

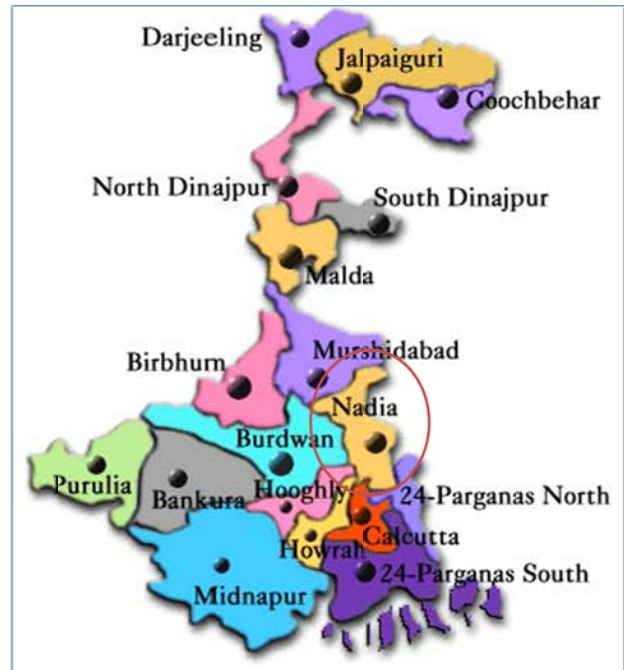
The West Bengal climate varies from tropical savannah in the southern portion to humid subtropical in the north. The main seasons are summer, rainy seasons a short autumn and winter, while the summer in the delta region is noted for excessive humidity. The western highlands experience a dry summer like northern India, with the highest day temperature 38°C (100°F) to 45°C (113°F). At nights, a cool southerly Breeze carries moisture from the Bay of Bengal. In early summer brief squalls and thunderstorms known as “kalbaisakhi” often arrive from the north or northwest. Monsoon bring rain to whole state from June to September. The West Bengal receives the Bay of Bengal branch of the Indian Ocean Monsoon that moves in the northwest direction. Winter (December to January) is mild over the plains with average minimum temperature of 15°C (59°F). A cold and dry northern wind blows in the winter, substantially lowering the humidity level. However Darjeelling Himalyan Hill region experiences a harsh winter, with occasional snowfall at places.

Table 5.1: Some Facts about West Bengal

Description	Rural	Urban
Population (%)	68.11	31.89
Total Population	62213676	29134060
Male Population	31904144	15023245
Female Population	30309532	14110815
Population Growth	7.73	29.90

Sex Ratio	:	950	939
Child Sex Ratio (0-6 years)	:	952	943
Child Population (0-6 years)	:	7535228	2577371
Child %	:	12.11	8.85
Literates	:	39898187	22716369
Average Literacy (%)	:	72.97	85.54
Male Literacy (%)	:	79.51	89.15
Female Literacy (%)	:	66.08	81.70

Rural population of West Bengal is 68.11 per cent and urban population is 31.89 per cent. Rural sex ratio is 950 female per 1000 male and urban sex ratio is 939 female per 1000 male. Average literacy rate in rural area is 72.97 per cent and urban literacy is 85.54 per cent. Male literacy in rural area is 79.51 per cent and in urban area it is 89.15 per cent. Female Literacy in rural area is 66.08 per cent and in urban area is 81.70 per cent.



Map 5.4: West Bengal District

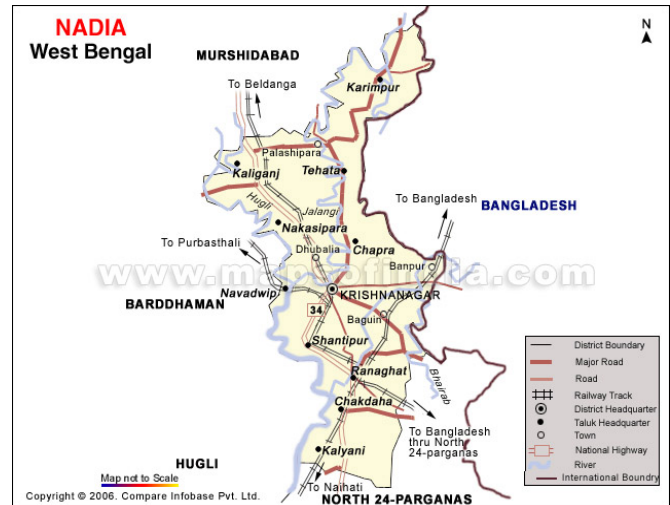
West Bengal nearly possess three percent of the nation’s cultivable land and about eight per cent of the country’s population. It produces more than eight percent of the food of the country. The agricultural sector is characterized by the predominance of small and marginal farmers tilling more than 68 per cent of the total operated area of the state. The average size of holding here is less than one hectare. Since the scope for bringing more area under cultivations is limited emphasis has been laid mainly on increasing the productivity of different crops by using quality seeds, fertilizers, plant protection measures as well as improved packages of practice and distributions of surplus and vested land, to the actual tillers, through land reforms.



Map 5.5: West Bengal Agriculture

The cropping intensity in the State has also been increased from 131 percent to 162 per cent during the last two decades. The State has achieved an all time record in food grains production and ranks first in production of rice in the country. Remarkable progress has also been made during the last one decade in the production of oilseeds which increased from 0.24 million tones to 0.55 million tones during the last decade. The state produces nearly 28 per cent of the total potato grown in the country. In terms of productivity it stands second. West Bengal also produces more than 60 per cent of the country's raw jute fiber. The State has achieved a three per cent per annum in the production of rice and 12 per cent per annum in the production of oilseeds.

The Nadia district is located in the Bengal delta bound by the Ganga (Bhagirathi). The district is situated at 23°24' N latitude and 88°56' E longitude. The district is bounded by the district Murshidabad to north and northwest, Kathie and Rajshahi to the east and north east of the district, the river Bhagirathi from the western boundary except for a small strip of land around Nadadwip town. The district is bounded by the district north 24 parganas in the south and south eastern part. The total area of the district is 3927 square kilometer. The headquarter of the district is in Krishnanagar.



Map 5.6: District Nadia

Table 5.2: Population of Nadia at a Glance

Discription	:	Rural	Urban
Population	:	2980279	871818
Male Population	:	1544725	445116
Female Population	:	143554	426702
Population	:	4605966	
Male Population	:	2367506	
Female Population	:	2238460	
Literacy	:	75.58%	
Sex Ratio	:	947	
Population Density	:	1316 per Kilometer square	

Nadia district is rural area where rural population is 2980279 which is much higher than male counterparts 871818. which is Literacy rate in Nadia district of West Bengal is 75.58 per cent. There are 947 female per 1000 male. Population density is 1316 person per Kilometer square.



Map 5.7: Chakdah Block Location

Some important information about the Chakdah Block

Table 5.3: Some Important Facts about Chakdah Block

Name of the Block office		: Chakdah	
Number of Gram panchayat	:	17	
Number of Mouza	:	164	
Number of Village	:	195	
Total Population	:	303950	
Male Population	:	159313	
Female Population	:	144637	
Total Area	:	32824.7 ha	
Urban Area	:	8613 ha	
Rural Area	:	24210.9 ha	
Net Irrigated Area	:	19500 ha	
Flood Prone Area	:	40%	
Soil Type	:	Sandy Loam	
Water Supply	:	No.	Area Covered
1. Deep Tube wells	:	59	3722.3 ha
2. River Lift Irrigation Scheme	:	11	880.3 ha
3. Shallow Tube wells	:	5218	13897.1 ha
4. Tank	:	405	90 ha
5. Other Source	:	-	910 ha

There are 17 gram panchayat in Chakdah block having 195 villages. Total area of this block is 32824.7 hectare. In which rural area is 24210.9 ha and urban area is only 8163 hectare. The net irrigated area is about 19500 hectare.



Map 5.8: Bihar District Map

Bihar lays mid way between West Bengal in east and Uttar Pradesh in West. The total area covered by the state of Bihar is 94163 kilometer square. The state is located between 21°58'10" N~27°31'15" N latitude and between 83°19'50"~88°17'40" E longitude. Its average elevation above sea level is 173 feet (53meter). Bihar is mildly cold in the winter, with the lowest temperatures being in the range from 4-10°C (39-50°F). Winter months are December and January. It is hot in the summer with the temperature around 35-40°C (95-104°). April to mid June is the hottest months. The monsoon months of June, July, August and September see

good rainfall. October, November, February and March have a pleasant climate.

Table 5.4: Some Facts about Bihar

Description	Rural	Urban
Population (%)	: 88.70	11.30
Total Population	: 92075028	11729609
Male Population	: 47983851	6201496
Female Population	: 44091177	5528113
Population Growth	: 23.90%	35.11%
Sex Ratio	: 919	891
Child Sex Ratio (0-6 years)	: 935	906
Child Population (0-6 years)	: 16899426	1682803
Child %	: 18.35	14.35
Literates	: 46478818	7911436
Average Literacy (%)	: 61.83	78.75
Male Literacy (%)	: 71.90	84.42
Female Literacy (%)	: 50.82	72.36

Rural population in Bihar is very high and is about 88.70 per cent. Urban population is 11.30 per cent which is very less as compared to rural population. Rural population growth is 23.90 per cent, which is slower as compared to urban population growth, which is 35.11 per cent. In rural are of Bihar there are 919 female per 1000 male whereas in urban area it is 891 female per 1000 male. Average literacy in rural area of Bihar is 61.83 per cent and urban area average literacy is 78.75 per cent.



Map 5.9: Bihar Agriculture

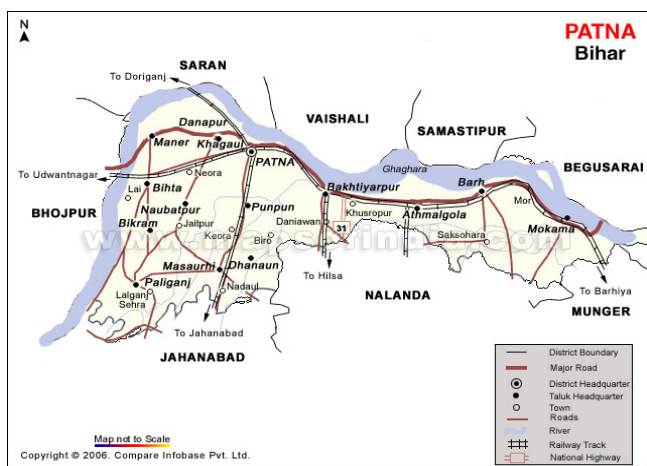
Agriculture is the backbone of Bihar’s economy. The soils are light, alluvium-derived soils mostly khaddar (recent alluvium) and hanger (old alluvium). In many places the soils are deep, loamy and high in organic matter content and hence very suitable for intensive cultivation. 81 Per cent of workforce are generating nearly 42 per cent of the domestic product. The state has attained self sufficiency in food grain

production. Barring Maize and Pulses productivity of various farm produce in Bihar is much below the national average.

The gross and net sown area in the state is estimated at 80.26 lakh hectare and 53.38 lakh hectare respectively. The intensity of cropping is 142 per cent. The principal crops are paddy, wheat, pulses, maize, potato, sugarcane, oilseeds, tobacco and jute. The rice, wheat and maize are the major crops. The average yeild of rice and wheat are 1.45 and 2.19 t/ha. respectively as against the production potential (experimental yeilds at research farm as well as realized in frontline demonstration) 4.5 to 5 t/ha. Similarly the average yeild of maize in the state is about 2.38 t/ha. as against its yeild potential 5 t/ha.

Although, Horticulture (Fruits, vegetables, spices, honey, medicinal and aromatic plants) occupies 15 per cent of land area but income generated from horticulture is much higher. The state has a monopoly in the production of litchi and makhana and continues to grow various fruits, vegetables, spices and floriculture is catching the imagination of people, reflected in their growing interest, across the state, ion diversification of horticulture.

Fertilizers, the most important component of new technology, play a very important role in enhancing the agricultural production in the State. Since the introduction of high yielding varieties, the consumption of chemical fertilizers has been increasing steadily. Fertilizer consumption in Bihar was a mere 22 Kg NPK/ha, in TE 1982 which increased to 63 kg/ha. In TE 1991 and reached a level of 82 kg/ha, in TE 1998. Fertilizer consumption that increased in all the zones during this period. Total consumptions in Bihar was 731.6 thousand MT during 2004-05. The level of consumption has increased to 1064.8 thousand MT during 2006-07. But there is unbalance use of N, P, K. While the ideal ratio would be 4: 2:1, this was 14.7:7:1 in 2004-05 but improved significantly to 6.8:3:1 in 2005-06.



Map 5.10: Patna District

Modern city of Patna is situated on the southern bank of the Ganges. The city also straddles the rivers Sone, Gandak, and Punpun. The city is approximately 35 kilometer long and 16 to 18 kilometer wide. The district Patna is located at 25°36', N latitude and 85°7', E longitude.

Patna has a humid subtropical climate with hot summers from late March to early June. The monsoon season ranges from late June to late September and a mild winter from November to February. The highest temperature ever recorded is 46.6°C (in 1966) and lowest ever is 2.3°C (2003). The highest rainfall was 204.5 mm (1997)

Some facts about Patna District.		
Total Population	:	4718592
Male Population	:	2519942
Female Population	:	2198650
Population of SC	:	729988
Male SC Population	:	386991
Female SC Population	:	342997
Population of ST	:	9236
Male ST Population	:	5352
Female ST Population	:	3884
Population Literate	:	2453501
Male Population Literate	:	1535672
Female Population Literate	:	917829

Table 5.5a: Some facts about Patna District
Source: <http://patna.bih.nic.in/pages/census.htm>

In Patna total SC population is 729988, which is much higher than ST population which is 9236. Total literate person in Patna District is 2453501. Male literate person is much higher than its female counterpart.

Table 5.5b: Some Facts about Patna District

Some facts about Patna District		
District headquarter	:	Patna
Total Blocks	:	23
Total Area	:	3202 square kilometer
Agricultural Crops	:	Rich Paddy fields; Potato, Onion and vegetables
Industry	:	Sugar, Fire-Works, Biscuit, Flour Mills, Light bulbs, Shoes and Wagon factory
Literacy rate	:	62.92%
Male Literacy rate	:	73.34%
Female Literacy rate	:	50.83%
Total House holds	:	726364
Rural House Holds	:	419619
Urban House Holds	:	306745
Female to Male ratio	:	87.25%
Urban Female to Male ratio	:	84.44%
Rural Female to Male ratio	:	89.31%
Rural Literacy rate	:	51.4%
Rural Female Literacy rate	:	36.57%
Rural Male Literacy Rate	:	64.49%
Total Working Population	:	36.56%

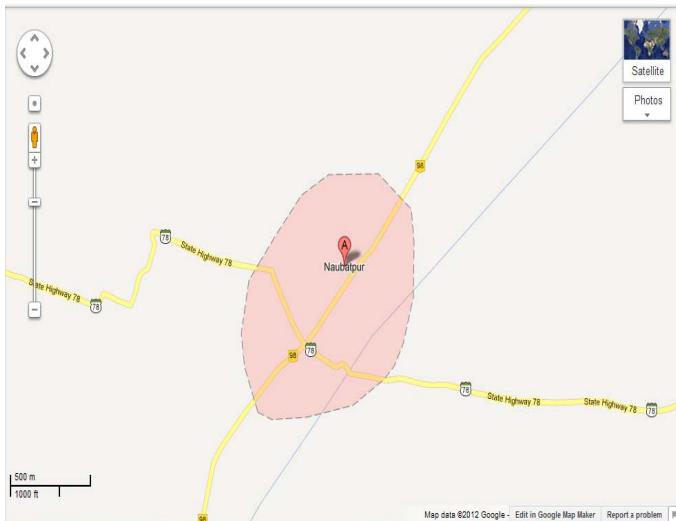
Male Working Population	:	54.08%
Women Working Population	:	16.23%
Total Non Working Population	:	63.44%
Male Non Working Population	:	45.92%
Female Non Working Population	:	83.77%
Source: http://www.allaboutbihar.com/district.jsp?district=28		

The district headquarters of Patna district is Patna. The district Patna is spreaded in 3202 square kilometer. The major crops which are grown in Patna district are paddy, Potato, Onion and vegetables. Literacy in Patna is 62.92 per cent.

Male literacy rate in Patna is 73.34 per cent which is higher as compared to female counterpart which is 50.83%. Rural literacy rate is 51.4 per cent. Total working population in Patna district is 36.56 per cent.

Total household in Patna district is 726364, in which rural household is 419619 and urban household is 306745,

Male working population is 54.08 per cent and female working population is on 16.23 per cent. Total non working population is 63.44 per cent. Male Non working population is 45.92 per cent which is lesser than female non working population which is 83.77 per cent.



Map 5.11: Naubatpur Location

The block Naubatpur is located at 25 kilometer west from Patna railway station in west.

Table 5.6: Some Facts about Naubatpur Block

Some Facts of Naubatpur Block		
Total Population	:	170629
Male Population	:	89765
Female Population	:	80864

Total SC Population	:	34756
Male SC Population	:	18331
Female SC Population	:	16425
Total ST Population	:	192
Male ST Population	:	101
Female ST Population	:	91
Total Population Literate	:	77932
Male Population Literate	:	50976
Female Population Literate	:	26956
Source: http://patna.bih.nic.in/pages/census.htm		

Total population of Naubatpur block is 170629, in which male population is 89765 and female schedule cast population is 80864.

Total schedule cast population is 34756, in which male schedule cast is 18331 and female schedule cast population is 16425.

Total schedule tribe population in Naubatpur block is 192 in which male schedule tribe population is 101 and female schedule tribe population is 91.

Total literate population in Naubatpur block is 77932 in which male literate population is 50976 and female literate population is 26956.

Table 5.7: Some Facts about village Chiroura

Total Population	:	3220
Literacy Rate	:	61.34%
Female Literacy Rate	:	51.29%
Male Literacy Rate	:	70.3%
Total Households	:	504
Female to Male Ratio	:	90.53%
Total Working Population	:	48.41%
Male Working Population	:	61.55%
Female Working Population	:	33.66%
Source: http://www.allaboutbihar.com/village.jsp?village=2968200		

Total population in Chiroura is 3220. Total area in Chiroura panchayat is 2200 bigha.

Total literacy rate in the village Chiroura is 61.34 per cent. Female literacy rate is 51.29 per cent and male literacy rate is 70.3 per cent.

Total household in this village is 504. Female to male ratio in this village is 90.53 per cent

Total working population is 48.41 per cent, in which male working population is 61.55 per cent and female working population is 33.66 per cent.