

Chapter 4

Research Setting: The Social Ecology

In any social science research, it is hardly possible to conceptualize and perceive the data and interpret the data more accurately until and unless a clear understanding of the people's attitude and their behavior characteristics in the given area of study. Research setting is immensely important in the sense because it is characterizing and influencing the interplays of different factors and components. Thus a study on Perception of Farmer about the issues of persuasive certainly demands a local unique natural set up, demography, crop ecology institutional set up and other cultural milieus the socio demographic background of the local people in a rural setting has been critically administered in this regard in this chapter.

The present study was taken up at the FINGTORE village, at LABPUR Block in BIRBHUM district of West Bengal. A brief description of the Birbhum district in general and the block and village in particular is given below.

Area of Study

The area of investigation of this study is situated in the state of West Bengal located in the eastern part of India. West Bengal has a unique social, cultural and ecological background, which influence the living standard and behavioral patterns of the people in many ways. The LABPUR block of BIRBHUM district of West Bengal has been selected for this purpose. The village FINGTORE of Labpur block has been selected as the area of the study.

West Bengal at a glance

West Bengal is a state in eastern India and is the nation's fourth-most populous state, with over 91 million inhabitants. Spread over 34,267 sq mi (88,750 km²), it is bordered by the countries of Bangladesh, Nepal and Bhutan, and the Indian states of Odisha, Jharkhand, Bihar, Sikkim, and Assam. The state capital is Kolkata.

A major agricultural producer, West Bengal is the sixth-largest contributor to India's net domestic product. Noted for its political activism, the state was ruled by democratically elected communist governments for 34 years from 1977. It is noted for its cultural activities and the presence of cultural and educational institutions; the state capital Kolkata is known as the "cultural capital of India". The state's cultural heritage, besides varied folk traditions, ranges from stalwarts in literature including Nobel-laureate Rabindranath Tagore to scores of musicians, film-makers and artists. West Bengal is also distinct from most other Indian states in its appreciation and practice of playing Association football besides cricket, the national favourite sport. When India gained independence in 1947, Bengal was partitioned along religious lines. The western part went to Dominion of India (and was named West Bengal) while the eastern part went to Dominion of Pakistan as a province called East Bengal (later renamed as East Pakistan in 1956), which gave rise to independent Bangladesh in 1971. In 1950, the Princely State of Cooch Behar merged with West Bengal.

Geography

West Bengal is bordered by three countries: Nepal, Bhutan and Bangladesh; and five Indian states: Sikkim, Bihar, Jharkhand, Odisha, and Assam. Sikkim and Bhutan are located at the north of the state, Nepal at the northwest, Bihar, Jharkhand and Chhattishgarh at the west, Odisha at the southwest, the Bay of Bengal at the south, and Bangladesh and Assam are at the east. West Bengal is the only state of India that has both the Himalayas in the north and the Bay of Bengal at the south. In between them, the river Ganges enters the state from west, before it branches off into its main distributaries: the Hooghly River, which flows southwards to reach the Bay of Bengal, and the Padma River, which flows eastwards into Bangladesh.

The districts that are located at the north of the Ganges—Darjeeling, Jalpaiguri, Cooch Behar, Malda, North Dinajpur, South Dinajpur and Alipurduar—are often referred to collectively as North Bengal. Geographically, this area is divided into the Darjeeling Himalayan hill region, the Terai and Doors region, and the North Bengal plains. The Siliguri Corridor, also known as Chicken's Neck, which connects North-East India with rest of the India, lies in this region. The Indo-Bangladesh enclaves are either enclaves or exclaves of the Cooch Behar district or the Jalpaiguri district.

The districts on the south of the Ganges—Bankura, Bardhaman, Birbhum, Purulia, Murshidabad, Nadia, West Midnapore, East Midnapore, Hooghly, Howrah, Kolkata, North 24 Parganas and South 24 Parganas—constitute a variety of geographical regions such as the Rarh region, the Western plateau and high lands, the coastal plains, the Sunderbans and the Ganges Delta. Kolkata, the capital of the state, constitutes the Kolkata district.

Climate of the State

West Bengal's climate varies from tropical savanna in the southern portions to humid subtropical in the north. The main seasons are summer, rainy season, 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 ranging from 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*, or Nor'westers, often occur. West Bengal receives the Bay of Bengal branch of the Indian ocean monsoon that moves in a northwest direction. Monsoons bring rain to the whole state from June to September. Heavy rainfall of above 250 cm is observed in the Darjeeling, Jalpaiguri and Cooch Behar district. During the arrival of the monsoons, low pressure in the Bay of Bengal region often leads to the occurrence of storms in the coastal areas. Winter (December–January) is mild over the plains with average minimum temperatures of 15 °C (59 °F). A cold and dry northern wind blows in the winter, substantially lowering the humidity level. The Darjeeling Himalayan Hill region experiences a harsh winter, with occasional snowfall at places.

Table 1: Demographic information of West Bengal State

Demographic information of West Bengal (according to 2011 census)	
Area	88,750 sq. Kms.
Population	91,347,736
Male population	46,927,389
Female population	44,420,347
Population growth	13.93%
Sex ratio	947
Population density	1000 / Km.2
Literacy rate	77.08%
Male literacy rate	82.67%
Female literacy rate	71.16%
No. of sub-divisions	66
No. of blocks	341
No. of gram panchayats	3354
No. of Villages	37945

Table 2: Land Utilization of West Bengal State

Land utilization	
Total geographical area (million hectare)	8.86
Net cropped area (million hectare)	5.46
Gross cropped area(million hectare)	9.23
Cropping intensity (%)	165.34
Forest area (%)	13.72
Non agricultural use (%)	18.66
Barren and uncultivated (%)	0.35
Fallow land (%)	0.3



Map 1: District Map of West Bengal

General Information of BIRBHUM district

Birbhum district is an administrative unit in the Indian state of West Bengal. It is the northernmost district of Burdwan division—one of the five administrative divisions of West Bengal. The district headquarters is in Suri.

Jamtara, Dumka and Pakur districts of the state of Jharkhand lie at the western border of this district; the border in other directions is covered by the districts of Bardhaman and Murshidabad of West Bengal.

Often called "the land of red soil," Birbhum is noted for its topography and its cultural heritage which is unique and is somewhat different from the other districts in West Bengal. The western part of Birbhum is a bushy region, a part of the Chhota Nagpur Plateau. This region gradually merges with the fertile alluvial farmlands in the east.

This district saw many cultural and religious movements in history. The Visva Bharati University at Santiniketan, established by Rabindranath Tagore, is one of the places Birbhum is internationally renowned for. Many festivals are celebrated in this culturally rich district, including the notable *Poush Mela*.

Birbhum is primarily an agricultural district with around 75% of the population being dependent on agriculture. Principal industries of the district include cotton and silk harvesting and weaving, rice and oilseed milling, lac harvesting, stone mining and metalware and pottery manufacture. Bakreshwar Thermal Power Station is the only heavy industry in the district.

Location

Situated between 23° 32' 30" (right above the tropic of cancer) and 24° 35' 0" north latitude and 87° 5' 25" and 88° 1' 40" east longitudes, and about 4,545 square kilometres (1,755 sq mi) in area, this district is triangular. River Ajay forms the southern base and the apex of the triangle points north. The river forms the boundary between the districts of Birbhum and Bardhaman. The state of Jharkhand is at the northern and the western border of Birbhum and Murshidabad is at the east.

Geographically, this area lies at the northeastern end of the Chota Nagpur Plateau, as it slopes down and merges with the alluvial plains of the Ganges. The western portion of the district is historically known as *Vajjabhumi* or *Bajrabhumi*. It is an undulating upland that is generally barren. The comparatively more fertile eastern portion, constituting the northeastern Rarh region, merges with the Gangetic plain. *Vajjabhumi* is included in the Rarh region, and the rest of Rarh is called *Sumha* to differentiate it from *Vajjabhumi*.

Climate

The district experiences a climate which is transitional between CW_{g3} and AW₁ types, where 'C' stands for 'warm temperate rainy climates with mild winter', 'W' for 'dry winter not compensated for by total rain in the rest of the year', 'g₃' for 'eastern Ganges type of temperature trend' and 'AW₁' for 'tropical savannah climates'. Average temperature in hot season is 30°C while at the cold season is 20°C. And average rainfall is 150 millimetre. The cold season starts from about the middle of November and continues till the end of February. March to May is dry summer intervened by tropical cyclones and storms. June to September is wet summer while October and November is autumn.

Economy

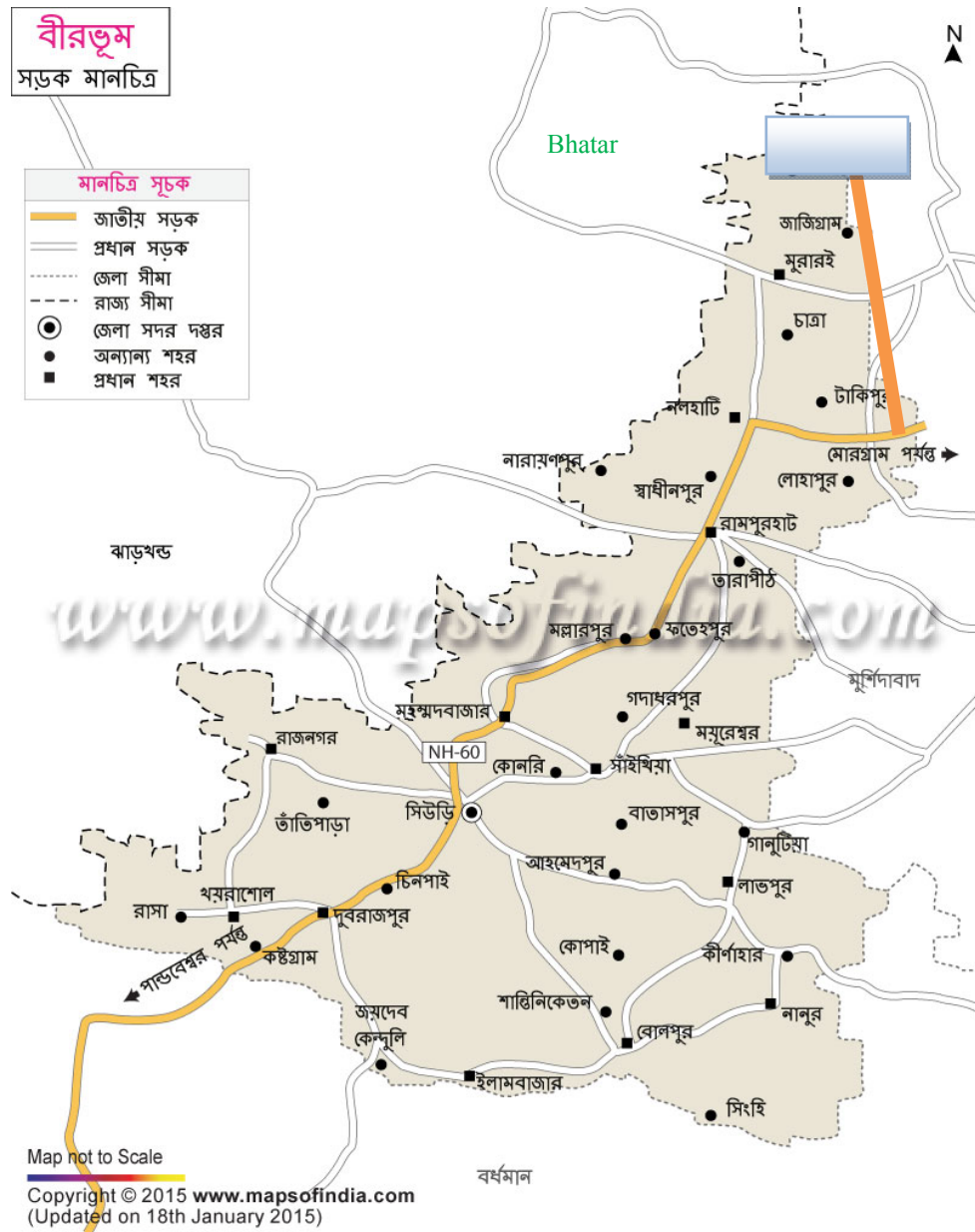
Birbhum is primarily an agricultural district with around 75% of the people dependent on agriculture. While 159.3 km² (61.5 sq mi) of land is occupied by forests, 3,329.05 km² (1,285.35 sq mi) of land is used for agricultural purposes. 91.02% of the population live in villages. Out of total 4,50,313 farmers (holding 3,20,610 hectares of land), 3,59,404 are marginal farmers (holding 1,41,813 hectares altogether), 63,374 are small farmers (holding 95,144 hectares altogether), 26,236 are semi-medium farmers (holding 76,998 hectares altogether), 1,290 are medium farmers (holding 6,215 hectare altogether), and 9 are large farmers (holding 440 hectares of land). The average size of land holding per farmer is 0.71 hectares. 6,07,172 people work as agricultural labourers in Birbhum. Major crops produced in the district include rice, legumes, wheat, corn (maize), potatoes and sugar cane. The district has thirteen cold storages. Land with irrigation facilities in 2001-02 totalled 2,763.9 km² (1,067.1 sq mi).^[7] There are five barrages, providing irrigation support. Canada Dam on the

Mayurakshi river at Massanjore lies close to the border of Birbhum and the Dumka district in Jharkhand. Further down the Mayurakshi is the Tilpara Barrage at Suri.^[7]

Birbhum is a major centre of cottage industries. Perhaps the most notable cottage industry is a non-profit rural organisation named Amar Kutir. Other main industries in Birbhum are agriculture-based industries, textiles, forestry, arts and crafts. Sriniketan is noted for its dairy industry and as a forestry centre. Some of the notable forms of cottage industries of Birbhum include textile—especially cotton and locally harvested tussar silk, jute works, batik, kantha stitch, macramé (weaving by knotting threads), leather, pottery and terracotta, solapith, woodcarving, bamboo and cane craft, metal works and tribal crafts. There are 8,883 small and medium scale industries. Principal industries of the district include cotton and silk harvesting and weaving, rice and oilseed milling, lac harvesting, and metalware and pottery manufacture. Bakreshwar Thermal Power Station (210 MW x 3 + 210 MW x 2 under construction) is the only heavy industry in the district.

Sainthia is known as business capital of Birbhum and an economically important town. Sainthia is the major centre for export and import of cottage industries. Huge numbers of businesses run in this town and its economy stands tall due to sales of agricultural based products.

In 2006 the Ministry of Panchayati Raj named Birbhum one of the country's 250 most backward districts (out of a total of 640). It is one of the eleven districts in West Bengal currently receiving funds from the Backward Regions Grant Fund Programme (BRGF).



Map 2: BIRBHUM district map

Table 3: General Information of Birbhum district
(Birbhum District :Census 2011 data)

Area	4524.4km2
Total population	3,502,404
Male	1,790,920
Female	1,711,484
Sex Ratio	956
Population density	771/km2
Population growth rate	16.15 %
Average literacy rate	70.89 %
Male literacy	76.92 %
Female literacy	64.14%
Proportion to West Bengal Population	
Sub-Divisions	3
Police Stations	18
CD. Blocks	19
Villages (Mouzas)	2455
Gram Panchayats	169
Gram Samsads	
Municipalities	6
District Head Quarters	SURI

Table 4: Educational Facilities of BIRBHUM

No. of Primary School	159
No. of Middle school	13
Junior High School	13
No. of Higher Secondary School	12
No. of Degree College	26
Professional & Technical College	61
No. of University	2
Public Library	208
Special & Non-formal Education	6861
Mass Literacy Centre	2000

Profile of LABPUR Block

Bhatar (community development block) is an administrative division in Burdwan Sadar North subdivision of Burdwan district in the Indian state of West Bengal. Bhatar police station serves this block. Headquarters of this block is at Bhatar.

Geography

Labpur is located at 23°48'37"N 87°47'44"E. Labpur community development block has an area of 264.82km². It is located in the laterite plains .

Gram Panchayets

Gram panchayats of Labpur block/panchayat samiti are: Bipratikuri, Chouhatta mahodari I, Chouhatta mahodari II, Dwaraka, Indus, Hatia, Janma, Kurunnahar, Labpur I, Labpur II, Thiba

Weather and Climate

It is Hot in summer. highest day temperature is in between 30°C to 45°C . Average temperatures of January is 18°C, February is 23°C, March is 28°C, April is 32°C , May is 34°C .

Table 5: General information of Labpur block

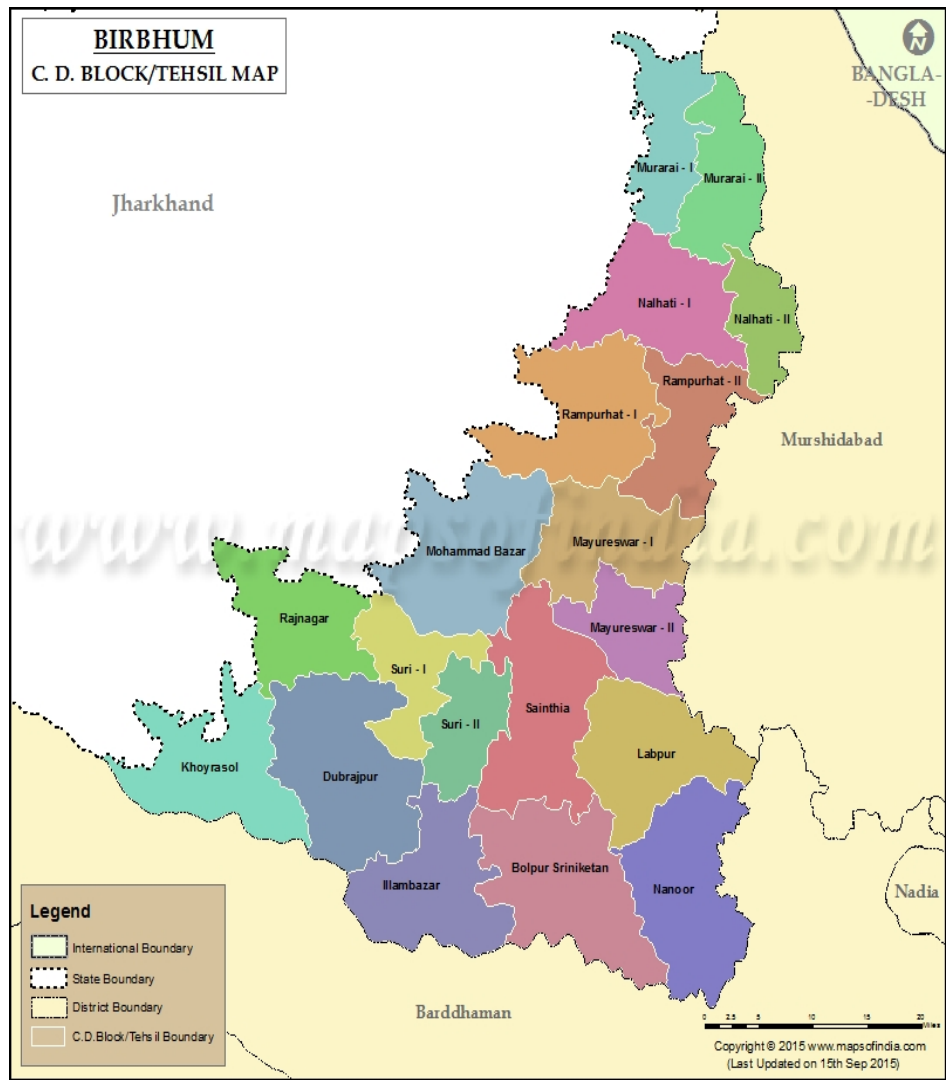
Block Area	264.82 k.m2
No. of Gram Panchayats	11
No. of Gram Sansads	143
No. of Mouza	107
No of police station	1

Table 6 Population of Labpur block

Population	2, 01,724
Male	1,03,574
Female	98,148
Sex Ratio	948
Educated male	73469
Educated female	58224

Table 7 Educational facilities and health facilities of Labpur block

No. of Primary School	159
No. of Secondary School	25
No. of Higher Secondary School	12
No. of Colleges	1
No. of Special and Non-formal Institution	120
No. of Library	9
Govt Hospital	1
Govt Health Centre	6
Govt. Clinic	35
Nursing Homes	2
Family welfare centre	38



Map 3 : BIRBHUM DISTRICT AND ITS BLOCK BOUNDARY

Jamna gram Panchayat at a glance

Jamna is the one of the gram panchayat of Labpur block/ panchayat samiti. The gram panchayat is bounded by 5 mouja. This Gram panchayat is situated at JAMNA village.

Table 8: General information on Jamna Gram Panchayat

Total area	27.685 km²
Total population	11,635
Total male	6,050
Total female	5,585
Pucca road	30km
Kaccha road	20km
Submersible	98
Temple	28
Total Mouja	5
Total Gram Samsad	7
High School	3
Primary School	9
Health Centre	1
Health Sub Centre	1
Sishu Shiksha Kendra	2

Total area of Jamna Gram Panchayat is 27.685km² and the total population is 11635 in which male members are 6050 and the female members are 5585. The number of deep Submersible are 98. The number of high schools and primary schools is 3 and 9 respectively. There are 1 Health centre, 1 sub Health centre and 2 Shishu Shiksha Kendras.

Table 9 Fingore village at a glance

Total Population	1043
Male	562
Female	481
Total agricultural area	81 ha
Primary school	1
Co-operative Society	1
Health sub centre	1
Anganwari Centre	1

According to Census 2011 information the location code or village code of Fingtor village is 317601. Fingtoire village is located in Labpur Tehsil of Birbhum district in West Bengal, India. It is situated 18.1km away from sub-district headquarter Labpur and 48.4km away from district headquarter Suri. As per 2009 stats, Jamna is the gram panchayat of Fingtoire village.

The total geographical area of village is 100.88 hectares. There are about 220 houses in Fingtor village. Bolpur is nearest town to Fingtor which is approximately 31km away.

The total population of Fingtoire village is 1884 among which the number of males is 562 while as the number of females is 481. There is only one Primary school in the village and also one Health sub centre. Also there is a facility of Co-operative Society in the village. Total agricultural area is 81 hectare which is very productive as it produces 3 crops per year and is the backbone of the village economy.