

Chapter-4

Research Setting: The Social Ecology

Research setting refers to the place or locale where the study is conducted. The background of the area and the people imparts a comprehensive idea to the researcher for executing any agricultural research programme. No interpretation can be drawn unless a clear understanding of the characteristics of the area and attitude of the people is obtained on the part of the researcher. To understand the behavioural complex of the respondents it is also important to understand their socio-demographic background.

NORTHEAST AT A GLANCE

Northeast India is the eastern-most region of India connected to East India via a narrow corridor squeezed between Nepal and Bangladesh. It comprises the contiguous Seven Sister States—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura and the Himalayan state of Sikkim. These states are grouped under the MDONER ministry of the Government of India. Except for the Goalpara region of Assam, the rest were late entrants to political India, the Brahmaputra valley of Assam became a part of British India 1824, and the hilly regions even later. Due

to cultural and historical reasons parts of North Bengal in West Bengal (districts of Darjeeling, Jalpaiguri, and Koch Bihar) are often included in Northeast India. Sikkim was recognised as a part of North-East states in the 1990s.

History

Earliest mention of North East India was by the Chinese explorer, Chang Kien, in 100 BC. Huen Tsang, the great Chinese traveller, visited the region in the 7th century. Throughout its history the region is known to have been an important physical and cultural bridge between India, East Asia, and Southeast Asia however, noted exception to this could be Assam Valley where there's a significant link to Indo-Aryan communities with rest of the India (e.g., Brahmins of Assam Valley, Kalitas and others). Furthermore, the region is a potential location for the domestication of several important plants, and is thus an important focus area for archaeology.

Formation of North Eastern States

During the entire British colonial period in India, North East India was ruled as a part of Bengal Province. The state of Assam came into existence in 1874. After the Indian Independence from British Rule in 1947, the Northeastern region of British India consisted of Assam and the princely states of Manipur and Tripura. Subsequently, Nagaland in 1963, Meghalaya in 1972, Arunachal Pradesh in 1975 and Mizoram in 1987 were formed out of Assam. Manipur and Tripura remained as Union Territories of India between 1956 until 1972 when they attained fully-fledged

statehood. Sikkim was integrated as the eighth North Eastern Council state in 2002. The city of Shillong acted as the capital of the Assam province created during the British Rule. It remained as the capital of undivided Assam until formation of the state of Meghalaya in 1972. The capital of Assam was then shifted to Dispur, a part of Guwahati, and Shillong became the capital of Meghalaya.

Geography

The Northeast region can be physiographically categorised into the Eastern Himalayas, Northeast Hills (Patkai-Naga Hills and Lushai Hills) and the Brahmaputra and the Barak Valley Plains. Northeast India (at the confluence of Indo-Malayan, Indo-Chinese, and Indian biogeographical realms) has a predominantly humid sub-tropical climate with hot, humid summers, severe monsoons and mild winters. Along with the west coast of India, this region has some of the Indian sub-continent's last remaining rain forests which supports diverse flora and fauna and several crop species. Similarly, reserves of petroleum and natural gas in the region constitute a fifth of India's total potential. The region is covered by the mighty Brahmaputra-Barak river systems and their tributaries. Geographically, apart from the Brahmaputra, Barak and Imphal valleys and some flat lands in between the hills of Meghalaya and Tripura, the remaining two-thirds of the area is hilly terrain interspersed with valleys and plains; the altitude varies from almost sea-level to over 7000 metres above MSL. The region's high rainfall averaging around 10000 millimetres and above creates

problems of eco system, high seismic activity and floods. The states of Arunachal Pradesh and Sikkim have a montane climate with cold, snowy winters and mild summers.

Demographics

The 39 million people of Northeast India constitute only about 3.8 per cent of the total population of the country (2001 census). Over 68 per cent of this population (26.64 million) live in the state of Assam alone. The density of population varies from 13 per sq. kilometre in Arunachal Pradesh to 340 per sq. kilometre in Assam. The predominantly hilly terrain in all the states except Assam is host to an overwhelming proportion of tribal population ranging from 19.3 per cent in Assam to 94.5 per cent in Mizoram. The region has over 160 Scheduled Tribes and over 400 other sub-tribal communities and groups. It is predominantly rural with over 84 per cent of the population living in the countryside. According to 2001 census, the total literacy rate of the population in the region at 68.5 per cent, with female literacy rate at 61.5 per cent, is higher than the country's average of 64.8 per cent and 53.7 per cent respectively. Of course, there are significant variations in the literacy rates among different states with Assam, Arunachal Pradesh and Meghalaya below the national average.

The economy in all of Northeast India is agrarian in nature, although little land is available for settled agriculture. The inaccessible terrain has made rapid industrialisation difficult in the region. Along with settled agriculture,

jhum(shifting cultivation) is still practised by a few indigenous groups of people.

STATE PROFILE ARUNACHAL PRADESH

Arunachal Pradesh, the land of rising Sun, is situated in the North-East extremity of India. The state is the largest among all the North- East States considering its vast area comprising of 83743 Sq. K.Ms. The State is having a long international border with Bhutan in the West covering 160 K.Ms, China in the north and north-east covering 1030 K.Ms and Myanmar in the east covering 440 K.Ms. The neighbouring states of Assam in the south and Nagaland in the east and south east are in the border. Arunachal Pradesh falls in the outer Himalayas and Patkoi Ranges. It is endowed with wide topographical variations, vegetation and wildlife. The state is vivisected by innumerable rivers and streams which originate in higher Himalayas and Arakan Ranges. They flow down to form tributaries of Bhrahmaputra. Arunachal Pradesh is the Indian state with the least population density, with just over 13 lacs of people living in the vast area of over 80,000 kilometres square. The population density of Arunachal Pradesh is even less than 20 people per kilometre square of area, according to Arunachal census of 2011. Population growth rate is more than 25% here, but has shown decrement since the last census. As vibrant is the land, so are the people living in it. Arunachal population speaks above 50 dialects in total owing to the cultural diversity. Yet, the official language is English. The state capital is Itanagar. In total Arunachal Pradesh (AR)

state comprises 16 districts. The ISOCODE assigned by International Organization for Standardization for Arunachal Pradesh state is AR.

The People

Racial affiliation of Arunachal Pradesh has been described as mongoloid, indo-mongoloid, kiratas, protomongoloid and so on. There are 25 major tribes and 100 sub-tribal speaking over 50 main dialects. Principle tribes of the State are Monpa, Miji, Aka, Adi, Nishing, Apatani, Tagin, Sherdukpen, Hill Miri, Digaru Mishmi, Idu Mishmi, Khamti, Nocte, Tangsa and Wancho. Most of these tribes are ethnically similar, having derived from an original common stock. But due to geographical isolation certain distinctive characteristics in each tribe in language, dress and customs can be noticed. The Monpas and Sherdukpens follow Buddhism. The second groups of people are Adis, Akas, Nishing, Apatanis, Mishmis, Tangsas worship sun and moon as their God, Donyi-Polo. The Noctes practice elementary form of Vaishnavism.

The people of Arunachal Pradesh are rapidly changing socially, culturally, politically and economically and they are no longer what they were 50 years ago. The physiological integration is the greatest achievement to the credit of the Government's policy cultivated in this region. The amount of development that could take place during the planned era should be considered as joint efforts of the Governments, people, elected representatives and dedicated officials. A holistic approach, with the active participation of the people, will further go in a long way in making this state a paradise.

Table 4.1: Statistical Data of the Arunachal Pradesh

Description	2011	2001
Approximate Population	13.82 Lakh	10.98 Lakh
Actual Population	1,382,611	1,097,968
Male	720,232	579,941
Female	662,379	518,027
Population Growth	25.92%	26.21%
Percentage of total Population	0.11%	0.11%
Sex Ratio	920	901
Child Sex Ratio	960	798
Density/km ²	17	13
Density/mi ²	43	34
Area km ²	83,743	83,743
Area mi ²	32,333	32,333
Total Child Population (0-6 Age)	202,759	205,871
Male Population (0-6 Age)	103,430	104,833
Female Population (0-6 Age)	99,329	101,038
Literacy	66.95 %	54.34 %
Male Literacy	73.69 %	65.43 %
Female Literacy	59.57 %	40.23 %
Total Literate	789,943	484,785
Male Literate	454,532	303,281
Female Literate	335,411	181,504

Source: www.census.co.in

Brief Profile of the Selected Districts

Lower Subansiri District

Lower Subansiri district is one of the 16 administrative districts of the state of Arunachal Pradesh in northeastern India. The district was formed when Subansiri district was bifurcated into Upper and Lower Subansiri districts in 1987. The district headquarters are located at Ziro. The district occupies an area of 3,460 km². It is bounded on the north by the

Upper Subansiri district of Arunachal, on the south by Papum Pare District of Arunachal Pradesh and Assam, on the east by West Siang and some part of Upper Subansiri, and on the west by East Kameng district of Arunachal Pradesh. There are 6 administrative circles in this district, namely, Ziro (Sadar), Yachuli, Pistana, Raga, Kamporijo and Dollungmukh. The district also divided into 3 blocks: Ziro-I, Ziro-II and Tamen-Raga. There are 2 Arunachal Pradesh Legislative Assembly constituencies located in this district: Yachuli and Ziro-Hapoli. Both of these are part of Arunachal West Lok Sabha constituency. According to the 2011 census Lower Subansiri district has a population of 82,839, roughly equal to the nation of Andorra. This gives it a ranking of 623rd in India (out of a total of 640). The district has a population density of 24 inhabitants per square kilometre (62 /sq mi). Its population growth rate over the decade 2001–2011 was 48.65%. Lower Subansiri has a sex ratio of 975 females for every 1000 males, and a literacy rate of 76.33%. This district is inhabited by Nyishis and Apatanis.

Upper Subansiri

Upper Subansiri is an administrative district in the state of Arunachal Pradesh in India. The district was formed when Subansiri district was bifurcated into Upper and Lower Subansiri districts in 1987. The district headquarters are located at Daporijo. Upper Subansiri district occupies an area of 7,032 square kilometres (2,715 sq mi), comparatively equivalent to the United Kingdom's East Falkland. The important towns are Daporijo, Dumporijo, Taliha, Nacho, Siyum, and Maro. There

are five Arunachal Pradesh Legislative Assembly constituencies in this district: Nacho, Taliha, Daporijo, Raga, and Dumporijo. All of these are part of Arunachal West Lok Sabha constituency. According to the 2011 census Upper Subansiri district has a population of 83,205, roughly equal to the nation of Andorra. This gives it a ranking of 621st in India (out of a total of 640). The district has a population density of 12 inhabitants per square kilometre (31 /sq mi). Its population growth rate over the decade 2001–2011 was 50.34%. Upper Subansiri has a sex ratio of 982 females for every 1000 males, and a literacy rate of 63.96%. Members of the Tagin, Hill Miri and Galo are found in the district. Languages spoken include Tagin, the dominant language, Hills Miri (now Nyishi) and Galo, also in the Sino-Tibetan language family and spoken in the western part of the district.

Papum-Pare District

Papum Pare district is an administrative district in the state of Arunachal Pradesh in India. As of 2011 it is the most populous district of Arunachal Pradesh (out of 16). The district was formed in 1999 when it was split from Lower Subansiri district. The district headquarters are located at Yupia. Papum Pare district occupies an area of 2,875 square kilometres (1,110 sq mi), comparatively equivalent to Indonesia's Muna Island. The headquarters of the state is located at Itanagar, which is also located at Papum Pare. The district is divided into two sub-divisions: Sagalee and Yupia Capital complex, which are further divided into 10 administrative circles, namely, Mengio, Leporiang, Sagalee, Toru,

Kimin, Doimukh, Balijan, Tarasso, Naharlagun and Itanagar. There are 3 Arunachal Pradesh Legislative Assembly constituencies located in this district: Itanagar, Doimukh and Sagalee. According to the 2011 census Papum Pare district has a population of 176,385, roughly equal to the nation of Sao Tome and Principe. This gives it a ranking of 594th in India (out of a total of 640). The district has a population density of 51 inhabitants per square kilometre (130 /sq mi). Its population growth rate over the decade 2001–2011 was 44.57%. Papumpare has a sex ratio of 950 females for every 1000 males, and a literacy rate of 82.14%. Papum Pare is inhabited by members of the Nyishi, who are traditionally followers of Donyi-Polo. Some members of the Nyishi tribe are followers of Christianity

MANIPUR

Manipur is one of the border states in the north-eastern part of the country having an international boundary of about 352 kms. long stretch of land with Myanmar in the southeast. It is bounded by Nagaland in the north, Assam in the west and Mizoram in the south. It has a total area of 22327 sq. kms. It lies between

23.8⁰ N to 25.7⁰ N latitude and 93.5⁰ E to 94.8⁰ E longitude.

Geographically, the State of Manipur could be divided into two regions, viz. the hill and the valley. The valley lies in the central part of the State and the hills surround the valley. The average elevation of the valley is about 790 m above the sea level and that of the hills is between 1500 m and 1800m. The hill region comprises of five districts viz. Senapati,

Tamenglong, Churachandpur, Chandel and Ukhrul and the valley region consists of four districts, viz. Imphal East, Imphal West, Thoubal and Bishnupur. The hill districts occupy about 90 percent (20089 sq km) of the total area of the State and the valley occupies only about tenth (2238 sq km) of the total area of the State. Imphal is the capital city of Manipur.

Economy

Agriculture is the mainstay of the people of the jeweled state. Since it is essentially a rice consuming state, paddy is the main crop grown in the state. Other cultivation includes wheat, pulses, maize etc. In the hilly side, jhoom or terrace cultivation is more common. It also has a very wide range of small-scale industries which produce pharma and electronic goods.

The People

Manipur is inhabited by three major ethnic groups - the Meiteis including the Meitei Pangals (Meitei Muslims) in the valley, the Nagas and the Kuki-Chin tribes in the hills. Besides this, other communities from the other states of India have also settled in the State. People are predominantly Mongoloid, and speak Tibeto-Burman languages. The Manipuri language which is the mother-tongue of the Meitei people is the lingua-franca of the State. English is the official language and also the language of doing business. The Meitei-lon speaking state of Manipur resides on the far north-eastern edge of the map of India. The landscapes filled with brilliant greenery complemented with the crystal-like water, kayaks in the lakes, and waterfalls in hills, seem to be a common sight in Manipur. The gifted land of Manipur also has a growing population of over 25 lakhs, residing

in a vast area of about 20,000 kilometre square. The population density of the state is very low, which makes it one of the least population density areas, in the north east corner of India. The state ranks first within the north eastern Indian states, when it comes to the sex ratio. It has a good gender proportion of above 900 females in 1000 males, according to the Manipur census 2011.

Literacy has greatly increased in this state as compared to the previous census, with around 10% increment rate. It's noteworthy, that literacy in females has increased more than that in males. The ratio of urban to rural population is approximately 3:7 in Manipur, which is better in terms of urbanization as compared to the rest of north-eastern regions. Imphal is the largest city in the state, which is also its capital. The official language spoken here is Meiteilon. The culture of Manipur is enriched with so many facets, that it is difficult to discuss all of them at once. But when it comes to Manipur, it will be criminal not to mention the 'Manipuri Raslila', which is the native traditional dance form. The dance is a treat to eyes both with the moves and the costumes. Mukna is a popular sport, which is a kind of wrestling. Other than these, many state- wide recreational activities like boat races and festivals ensue.

The capital city which is also the largest city in the state of Manipur is Imphal. The languages spoken in the Manipur state includes Manipuri. In total Manipur (MN) state comprises 9 districts. The ISOCODE assigned by International Organization for Standardization for Manipur state is MN.

Table 4.2: Statistical Data of Manipur

Description	2011	2001
Approximate Population	27.21 Lakh	22.94 Lakh
Actual Population	2,721,756	2,293,896
Male	1,369,764	1,161,952
Female	1,351,992	1,131,944
Population Growth	18.65%	30.02%
Percentage of total Population	0.22%	0.22%
Sex Ratio	987	978
Child Sex Ratio	934	975
Density/km ²	122	103
Density/mi ²	316	266
Area km ²	22,327	22,327
Area mi ²	8,621	8,621
Total Child Population (0-6 Age)	353,237	326,366
Male Population (0-6 Age)	182,684	166,746
Female Population (0-6 Age)	170,553	159,620
Literacy	79.85 %	70.53 %
Male Literacy	86.49 %	80.33 %
Female Literacy	73.17 %	61.46 %
Total Literate	1,891,196	1,310,534
Male Literate	1,026,733	753,466
Female Literate	864,463	557,068

Source : www.census.co.in

BRIEF PROFILE OF THE SELECTED DISTRICTS

Churachandpur District

Churachandpur is the largest district in the Indian state of Manipur.

According to the 2011 census Churachandpur district has a population of 271,274, roughly equal to the nation of Barbados. This gives it a ranking of 575th in India (out of a total of 640). The district has a population density of 59 inhabitants per square kilometre (150 /sq mi) .

Its population growth rate over the decade 2001–2011 was 19.03 %.Churachandpur has a sex ratio of 969 females for every 1000 males, and a literacy rate of 84.29 %.The district is inhabited by several tribes, such as Paite, Hmar, Vaiphei Zou and Thadou-Kuki. Apart from these, there are the Gangte, Simte, Mizo, Tedim, Milhiem/Miria and some Manipuri Meiteis. There are also other non-Manipuri ethnic groups like Nepalese, Biharis, Malwaris, and Punjabis. While the Nepalese excel in the milk industry, the Malwaris are well known for their business acumen. Despite the commercial origin of Churachandpur town, the indigenous people have few entrepreneurs and traditionally worked in the government sector. In fact, the town has been over-represented in civil services at the national level.

Senapati District

Senapati is a district of Manipur state in India. Senapati District is located between 93.29° and 94.15° East Longitude and 24.37° and 25.37° North Latitude and is in the northern part of Manipur state. The District is bounded on the south by Imphal District, on the east by Ukhrul District, on the west by Tamenglong District and on the north by Phek district of NagalandNagaland state. The district lies at an altitude between 1061 meter to 1788 meters above sea level. 80% of the land area is covered by forest while the rest 20% are utilized for cultivation. Rice, maize, potato, cabbage and cereals are the major produces of the district. According to the 2011 census Senapati district has a population of 518955, roughly equal to the nation of Belize. This gives it a ranking

of 565th in India (out of a total of 640). The district has a population density of 109 inhabitants per square kilometre (280 /sq mi). Its population growth rate over the decade 2001-2011 was 25.16%. Senapati has a sex ratio of 939 females for every 1000 males, and a literacy rate of 75%.

Tamenglong District

Tamenglong district is one of the nine districts of Manipur state in northeastern India. As of 2011 it is the least populous district in the state. This district is bounded by Nagaland state on the north, by Senapati district on the north and east, by Churachandpur district on the south and by Imphal West district and Assam state on the west. Tamenglong town is the headquarters of this district. The district occupies an area of 4391 km. According to the 2011 census Tamenglong district has a population of 140,143, roughly equal to the nation of Saint Lucia. This gives it a ranking of 607th in India (out of a total of 640). The district has a population density of 32 inhabitants per square kilometre (83 /sq mi). Its population growth rate over the decade 2001-2011 was 25.69%. Tamenglong has a sex ratio of 953 females for every 1000 males, and a literacy rate of 70.4%.

MEGHALAYA

Meghalaya literally means the abode of clouds. Hills reaching to the clouds, waterfalls, crystal clear lakes, caves and forests are the nature's signatures on the land of Meghalaya. The far Indian state spreads over about a small area of 20000 kilometres square. There are only about 100 people living in a kilometre square of area in Meghalaya, making it a low

density region. Approximately 30 lacs of population reside in the naturally gifted land, which makes the state of Meghalaya one of the states in India with lowest population. In spite of the low density and population of Meghalaya, it is worth noticing that, the state has a rapid population growth rate, and has the third fastest growing population in India, according to the Meghalaya census 2011. The gender ratio in Meghalaya ranks average along with many other states. But there has been a definite increase in the ratio, since the 2001 census, which means the number of females in the state's been increasing. The state has a low literacy rate, but has grown by over 10 % in the last decade. At the same time, the percentage of female literacy has been drastically increased. So, females aren't so far behind the other gender when it comes to letters. As with many north- east states of India, lack of urbanization exists here as well. About 80% population lives in the rural area while only a small portion has moved to the urban land. But maybe that's why this part of the country is rich in culture and nature even today, without the cosmopolitan mix. Shillong is the well-known capital of Meghalaya. Another important part of Meghalaya is Cherrapunji, which boasts a grand rainfall every year, making it the rainiest place. The culture of Meghalaya possesses a nice blend of folktales, the Khasi language, colourful festivities and ethnic dance forms and equally colourful attires.

The capital city which is also the largest city in the state of Meghalaya is Shillong. The languages spoken in the Meghalaya state includes Khasi, Pnar, Garo, Hindi and English. In total Meghalaya (ML) state comprises 7

districts. The ISOCODE assigned by International Organization for Standardization for Meghalaya state is ML.

Meghalaya is subject to vagaries of the monsoon. The climate varies with altitude. The climate of Khasi and Jaintia Hills is uniquely pleasant and bracing. It is neither too warm in summer nor too cold in winter, but over the plains of Garo Hills, the climate is warm and humid, except in winter. The Meghalayan sky seldom remains free of clouds. The average annual rainfall is about 2600 mm over western Meghalaya, between 2500 to 3000 mm over northern Meghalaya and about 4000 mm over south-eastern Meghalaya. There is a great variation of rainfall over central and southern Meghalaya. At Sohra (Cherrapunjee), the average annual rainfall is as high as 12000 millimetres, but Shillong located at a distance of about fifty kilometres from Sohra receives an average of 2200 mm of rainfall annually.

People and Culture

Meghalaya is the homeland mainly of the Khasis, the Jaintias and the Garos. The Garos inhabit western Meghalaya, the Khasis in central Meghalaya, and the Jaintias in eastern Meghalaya. The Khasi, Jaintia, Bhoi, War, collectively known as the Hynniewtrep people predominantly inhabit the districts East of Meghalaya, also known to be one of the earliest ethnic group of settlers in the Indian sub-continent, belonging to the Proto Austroloid Monkhmer race. The Garo Hills is predominantly inhabited by the Garos, belonging to the Bodo family of the Tibeto-Burman race, said to have migrated from Tibet. The Garos prefer to call themselves as Achiks and the land they inhabit, as the Achik-land. The Khasis, the Jaintias and the Garos have a matrilineal society. Descent is traced through the mother, but

the father plays an important role in the material and mental life of the family. While, writing on the Khasi and the Jaintia people, David Roy observed, '*a man is the defender of the woman, but the woman is the keeper of his trust*'. No better description of Meghalayan matrilineal society could perhaps be possible.

Agriculture

Meghalaya is basically an Agricultural State with about 80% of its total population depending entirely on Agriculture for their livelihood. Nature in its generous abundance, has bestowed Meghalaya a unique array of vegetation ranging from tropical and sub-tropical to temperate or near temperate. The total cropped area in the State has increased by about 42 per cent during the last twenty-five years. Food grain production sector covers an area of over 60 per cent of the total crop area. With the introduction of different crops of high yielding varieties in the mid-seventies, remarkable increase in food grain production has been made. A major breakthrough was achieved when High Yielding Varieties of paddy such as Masuri, Pankaj IR 8 and other improved varieties series especially IR 36 which is suitable for Rabi season, fitting in the multi-cropping system have been widely cultivated all over the feasible areas of the State. A spectacular achievement was obtained when Megha I and Megha II which are cold tolerant rice varieties developed by the ICAR North East Region at Umroi near Shillong was released in 1991-92 for the higher altitude regions where there was no High Yielding Rice varieties at all earlier. Besides the major food crops of Rice and Maize, the State is also renowned for its Horticultural crops like Orange, Lemon, Pineapple,

Guava, Litchi, Banana, Jack Fruits and Temperate fruits such as Plum, Pear, Peach etc. Potato, Ginger, Turmeric, Black Pepper, Areca nut, Tezpatta, Betelvine, Short- staple cotton, Jute, Mesta, Mustard and Rapseed etc. are some of the important cash crops in the State. Apart from the above the State have achieved signal success in the cultivation of non-traditional crops like Tea, Cashewnut, Oilseeds, Tomato, Mushroom, Wheat, etc. Today the State can claim that about 42 per cent area under paddy have been covered with HYV with the average productivity of 2300 kgs/ha. So also is the case with Maize and Wheat where the productivity have increased tremendously with the introduction of HYV from 534 kgs/ha during 1971-72 to 1218 kgs/ha of Maize and from 611 kgs/ha to 1508 kgs/ha of Wheat. New emphasis is laid on pulses, oilseeds and cash crops. An autonomous board is set up to promote plantation crops, pioneering work done in tea cultivation, with the State having 253 small tea growers at present. Marketing of agricultural produce facilitated by establishing Secondary Regulated Markets and building rural godowns.

Table 4.3: Statistical Data of Meghalaya

Description	2011	2001
Approximate Population	29.64 Lakh	23.19 Lakh
Actual Population	2,964,007	2,318,822
Male	1,492,668	1,176,087
Female	1,471,339	1,142,735
Population Growth	27.82%	29.94%
Percentage of total Population	0.24%	0.23%
Sex Ratio	986	975
Child Sex Ratio	970	932
Density/km ²	132	103
Density/mi ²	342	268

Area km ²	22,429	22,429
Area mi ²	8,660	8,660
Total Child Population (0-6 Age)	555,822	467,979
Male Population (0-6 Age)	282,189	237,215
Female Population (0-6 Age)	273,633	230,764
Literacy	75.48 %	62.56 %
Male Literacy	77.17 %	71.18 %
Female Literacy	73.78 %	50.43 %
Total Literate	1,817,761	1,157,875
Male Literate	934,091	614,272
Female Literate	883,670	543,603

Source : www.census.co.in

BRIEF PROFILE OF THE SELECTED DISTRICTS

West Garo Hills

West Garo Hills is an administrative district in Garo Hills of the state of Meghalaya in India. Tura town is the administrative headquarters of the district. The district occupies an area of 3714 km² and has a population of 515,813 (as of 2001). As of 2011 it is the second most populous district of Meghalaya (out of 7), after East Khasi Hills. West Garo Hills district is located at the westernmost part of Meghalaya. The district is bounded by East Garo Hills district on the east, by South Garo Hills district on the south-east, Goalpara district of Assam state on the north and north-west and Bangladesh on the south. According to the 2011 census West Garo Hills district has a population of 642,923, roughly equal to the nation of Montenegro or the US state of Vermont. This gives it a ranking of 514th in India (out of a total of 640). The district has a population density of 173 inhabitants per square kilometre (450 /sq

mi). Its population growth rate over the decade 2001-2011 was 24.02%. West Garo Hills has a sex ratio of 979 females for every 1000 males, and a literacy rate of 68.38%. Tura has a mixed population of Garos or Achiks (as they prefer to call themselves), Bengalis, Nepalis, Assamese, members of other ethnic groups such as the Hajong, Rabhas and Koches, Bodo and a fair sprinkling of South Indians in the Catholic Church, the teaching profession and the paramilitary forces. Languages in West Garo include A'Tong, a Tibeto-Burman language spoken by 10,000 people in Bangladesh and India.

East Jaintia Hills District

Jaintia Hills is an administrative district in the state of Meghalaya in India. The present district was created in 22 February 1972 and occupies an area of 3819 km². It has a population of 392,852 of which a vast majority is rural. This gives it a ranking of 558th in India (out of a total of 640). The district has a population density of 103 inhabitants per square kilometre (270 /sq mi). Its population growth over the decade 2001-2011 was 31.34%. Jaintia Hills has a sex ratio of 1008 females for every 1000 males, and a literacy rate of 63.26%. The district headquarters are located at Jowai. The district is bounded by Assam on the east and north, East Khasi Hills district on the west and has an international border with Bangladesh on the south. Although the mainstay of the district is agriculture, however due to the abundance of Limestone, plenty of Cement factories have been set up in the district. More are set to come up.

Coal mining at sites like Lad Rymbai is also one of the major activities set up here. Coal mined here is mostly exported to Bangladesh and Assam.

Ri-Bhoi District

Ri Bhoi is an administrative district in the state of Meghalaya in India. The district headquarters are located at Nongpoh. The district occupies an area of

2378 km² and has a population of 192,795 (as of 2001). As of 2011 it is the second least populous district of Meghalaya after South Garo Hills. The district was upgraded from subdivisional level to a full fledged district on 4 June 1992. The new District, was carved out from the erstwhile East Khasi Hills. According to the 2011 census Ri-Bhoi district has a population of 258,380, roughly equal to the nation of Vanuatu. This gives it a ranking of 580th in India (out of a total of 640). The district has a population density of 109 inhabitants per square kilometre (280 /sq mi). Its population growth rate over the decade 2001-2011 was 34.02%. Ri Bhoi has a sex ratio of 951 females for every 1000 males, and a literacy rate of 77.22%. The main Language spoken in Ribhoi is Karew which is its native spoken language. It is more popularly known to other people as the Bhoi language. Languages used in the district include Amri, a Tibeto-Burman language related with Karbi, with 125 000 speakers.

MIZORAM

Mizoram lies in between 92° .15' to 93° .29' E longitude and 21° .58' to 24° .35' N latitude. The length of Mizoram is 320 km and the breath is 160 km. The surface is undulating and broken hills mainly run from North to

South. Similarly, the major rivers also run from North to South. The altitude ranges from 21 metre at Tlabung to 2,175 m at Phawngpui (Blue Mountain). Temperature ranges from 10°C to 36°C and the annual rainfall ranges from 2,000 mm to 2,500 mm. The climate is characterised by monsoon rains from May to October, winter from first part of December to the end of February and summer without rainfall except few shower from first part of March to the end of April. As a whole, Mizoram climate is pleasant during winter and moderately warm during summer. Soils of Mizoram are mostly acidic, low in organic carbon, low in phosphate and medium in potash content. The soil is young without very hard rocks and no lime stone deposited. Quality of sand is also poor while almost all the crops thrive well in Mizoram condition.

Economy

The mainstay of economy of Mizoram is agriculture, which is currently exhibiting trends of increasing unsustainability. Crop production in the region is characterised by low input – low yield concept. Slash and burn agriculture is still predominantly practiced in almost all the district of Mizoram on steep slopes with reduced fallow cycle of 2-3 years against 10-15 years in the past. The basic issues facing agriculture in the region are low productivity, inadequate access to appropriate technologies and other external inputs, increased natural calamities etc. In the absence of major industries, the society is agrarian and depends on agriculture, forest and allied sectors for livelihood and other support.

Various technological interventions such as scientific land development (terrace making), introducing barrier crops and multipurpose tree species to

check soil erosion and soil and water conservation measures, irrigation facility for winter crops, soil acidity management, technological back stopping for organic farming including integrated nutrient and pest management, introduction of green manure crops, bio fertilizer, introducing improved seeds of high yielding varieties, inter cropping, double or triple cropping sequence to increase cropping intensity, scientific cultivation and addition of spices and horticultural crops, use of hill farm tools and implements, supply of improved breeds of cow, pig, poultry, integration of agriculture-horticulture-agro-forestry-silvi-culture in the farming system model. Introduction of fodder crops in the terrace riser, introduction of cold water fisheries etc. will be taken up as part of the mandate with an aim to ensure sustainable livelihood.

MIZORAM AT A GLANCE

Mizoram is one of the north eastern states of India, and like its sister states its rich in every aspect of nature and culture. Dense forests, lush green hills and lots of bamboo everywhere, pristine waterfalls and transparent lakes present great tourism opportunities. Spreading of a small population of about 10 lakhs over an area of 20000 kilometer square, has led to a low population density of about 50 per kilometer square, which makes Mizoram the third state in India with the lowest population density, as shown by the Mizoram state census done in 2011. The density has increased in last 10 years. Population growth rate, however, has decreased by approximately 10%, and currently stands at about 20%. The percentage of literate population is in the 90's, and has also been subjected to

positive increment. Increase in female literacy is more than double of that in males.

The gender ratio has also undergone a positive change and is increasing slowly. The child sex ratio, on the other hand, has significantly increased. The distribution of population is equal in rural and urban areas. In urban areas, the gender ratio has a perfect a score, which means there are as many females as males. Literacy in urban areas is naturally high. The official language Mizo is widely spoken in the state of Mizoram, which is the language of the hill folks. English is also widely used, as is the case with most north eastern states of India. Aizawl is the main city in Mizoram and it's also the state capital. As with most of the land, bamboo has found its way in Mizoram's culture as well. The exclusive dance forms of Mizoram use bamboo for a special effect. The attires of Mizo people are colorful kimono style drapes with native beaded jewellery. All in all, the state presents a great blend of cultures.

The capital city which is also the largest city in the state of Mizoram is Aizawl. The languages spoken in the Mizoram state includes Mizo. In total Mizoram (MZ) state comprises 8 districts. The ISOCODE assigned by International Organization for Standardization for Mizoram state is MZ.

Table 4.4: Statistical Data of Mizoram

Description	2011	2001
Approximate Population	10.91 Lakh	8.89 Lakh
Actual Population	1,091,014	888,573
Male	552,339	459,109
Female	538,675	429,464
Population Growth	22.78%	29.18%
Percentage of total Population	0.09%	0.09%

Sex Ratio	975	938
Child Sex Ratio	971	883
Density/km ²	52	42
Density/mi ²	134	109
Area km ²	21,081	21,081
Area mi ²	8,139	8,139
Total Child Population (0-6 Age)	165,536	143,734
Male Population (0-6 Age)	83,965	73,176
Female Population (0-6 Age)	81,571	70,558
Literacy	91.58 %	88.80 %
Male Literacy	93.72 %	92.53 %
Female Literacy	89.40 %	86.75 %
Total Literate	847,592	661,445
Male Literate	438,949	350,105
Female Literate	408,643	311,340

Source: www.census.co.in

BRIEF PROFILE OF THE SELECTED DISTRICT

Champhai District

Champhai is a border town in Mizoram state of India. It is the headquarters of Champhai district, one of the eight districts in the state. It is located on the Indo- Myanmar border and is situated in a strategically important location. Because of this it is the main business corridor for India and Myanmar in the state. It is a big hillock located near the cross point of 93° E longitude and 23° N latitude. It encompasses an area of 3185.83 km² with an altitude of 1678 m and the annual rainfall is 1814 ml per annum. Agriculture is the main occupation of which 65% of the population is engaged in this occupation. 30% of the population is Govt. employee and the rest 5% are engaged in private enterprise.

According to the 2011 census Champhai district has a population of 125,370, roughly equal to the nation of Grenada. This gives it a ranking of 610th in India (out of a total of 640). The district has a population density of 39 inhabitants per square kilometre (100 /sq mi). Its population growth rate over the decade 2001-2011 was 16.01%. Champhai has a sex ratio of 984 females for every 1000 males, and a literacy rate of 95.91%.

NAGALAND

Geography

Nagaland is a vibrant hill state Located in the extreme North Eastern End of India, bounded by Myanmar in the East; Assam in the West; Arunachal Pradesh and a part of Assam in the North with Manipur in the south. It offers rich incomparable traditional and cultural heritage. The population of Nagaland is entirely Tribe. The Distinctive character and identify of each tribe in terms of Tradition, custom, language and dresses is clearly discernible to the visitors. Its Longitude lies at 93.20⁰E to 95.15⁰E and Latitude: 25.6⁰ N to 26.4⁰N.

Administration

Nagaland is called so, because the people residing there are called Nagas. Its population is widely diverse, and has 16 tribes living in the state. The mostly Christian population of Nagaland draws its culture from many other neighboring regions. The state of Nagaland is one of the least populated states of India, and ranks 25th population wise, owing to its population of less than 20 lacs. The population of Nagaland is spread over an area of

over 15000 kilometer square, with a population density of just over 100 in one kilometer square of area, as shown by the Nagaland census 2011. What really sets the state apart from others in India is the growth rate of population in Nagaland. Where, many other states have fallen prey to the population explosion, Nagaland has not only reduced the previous growth rate of above 60%, but it has also brought it to less than zero. This negative growth rate has greatly helped control the population in Nagaland. The growth rate is still above 60 in the urban areas, and far too less in the rural areas.

The gender ratio in Nagaland's population however is the least as compared to other north-eastern states. The sex ratio is greater in the rural population as compared to urban. Literacy in Nagaland has undergone an extremely positive improvement in the last decade. From the initial literacy of only 60%, it has risen to about 80% according to census 2011. Urban population is less as compared to the rural. The state has only one airport in its biggest city, Dimapur. The state capital of Nagaland is Kohima. It is one of the few states in India to have English as its official language. Due to the variation in its culture, about 20 languages are spoken in the state, Nagamese being the widely used one.

The largest city in the state of Nagaland is Kohima while Dimapur is the capital city of the Nagaland. The languages spoken in the Nagaland state includes English. In total Nagaland (NL) state comprises 11 districts. The ISOCODE assigned by International Organization for Standardization for Nagaland state is NL.

Table 4.5: Statistical data of Nagaland

Description	2011	2001
Approximate Population	19.81 Lakh	19.90 Lakh
Actual Population	1,980,602	1,990,036
Male	1,025,707	1,047,141
Female	954,895	942,895
Population Growth	-0.47%	64.41%
Percentage of total Population	0.16%	0.19%
Sex Ratio	931	909
Child Sex Ratio	944	926
Density/km ²	119	120
Density/mi ²	309	311
Area km ²	16,579	16,579
Area mi ²	6,401	6,401
Total Child Population (0-6 Age)	285,981	289,678
Male Population (0-6 Age)	147,111	147,524
Female Population (0-6 Age)	138,870	142,154
Literacy	80.11 %	66.59 %
Male Literacy	83.29 %	76.04 %
Female Literacy	76.69 %	56.87 %
Total Literate	1,357,579	1,132,323
Male Literate	731,796	640,201
Female Literate	625,783	492,122

Source : www.census.co.in

Brief Profile of the Selected Districts

Kohima District

The District headquarter of Kohima District is Kohima. Kohima situated in the south at an altitude of 1444 m above sea level, occupies pride of place as the capital city of Nagaland. Kohima district is bounded by Dimapur on the West, Wokha district on the North, Zunheboto and Phek districts on the East and Manipur state on the South. Kohima has a pleasant and moderate

climate - not too cold in winters and pleasant summers. December and January are the coldest months when frost occurs and in the higher altitudes snowfall occurs occasionally. During the height of summers, from July–August, temperature ranges an average of 80-90 Fahrenheit. Heavy rainfall occurs during summer and Kohima receives an average annual rainfall of nearly 2000 mm. According to the 2011 census Kohima district has a population of 270,063 roughly equal to the nation of Barbados. This gives it a ranking of 576th in India (out of a total of 640). Its population growth rate over the decade 2001-2011 was 0 %. Kohima has a sex ratio of 927 females for every 1000 males, and a literacy rate of 85.58 %.

Wokha District

It covers an area of 1,628 km². Its capital is the town of Wokha. According to the 2011 census Wokha district has a population of 166,239, roughly equal to the nation of Saint Lucia. This gives it a ranking of 595th in India (out of a total of 640). Wokha has a sex ratio of 969 females for every 1000 males, and a literacy rate of 87.6%. If things are looked out at gender wise, male and female literacy were 90.53 and 84.58 respectively. Wokha District population constituted 8.39 percent of total Maharashtra population. The initial provisional data released by census India 2011, shows that density of Wokha district for 2011 is 102 people per sq. km.